

DISTRICT I
1625 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: (575) 748-1283 Fax: (575) 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) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

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

☒ AS-DRILLED
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35862	² Pool Code 98080	³ Pool Name NAGEEZI UNIT; MANCOS
⁴ Property Code 315244	⁵ Property Name NAGEEZI UNIT	⁶ Well Number 510H
⁷ OGRID No. 282327	⁸ Operator Name ENCANA OIL & GAS (USA) INC.	⁹ Elevation 6747

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
A	9	23N	9W		260'	NORTH	399'	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	10	23N	9W		336'	SOUTH	330'	EAST	SAN JUAN

¹² Dedicated Acres
UNIT: NW/4, SW/NE, NE/SE & SE/4 SEC. 10
(400 AC); SW/SW SEC 3 (40 AC); NE/NE
SEC 9 (40 AC); SE/SE SEC 4 (40 AC) =
520 ACRES TOTAL

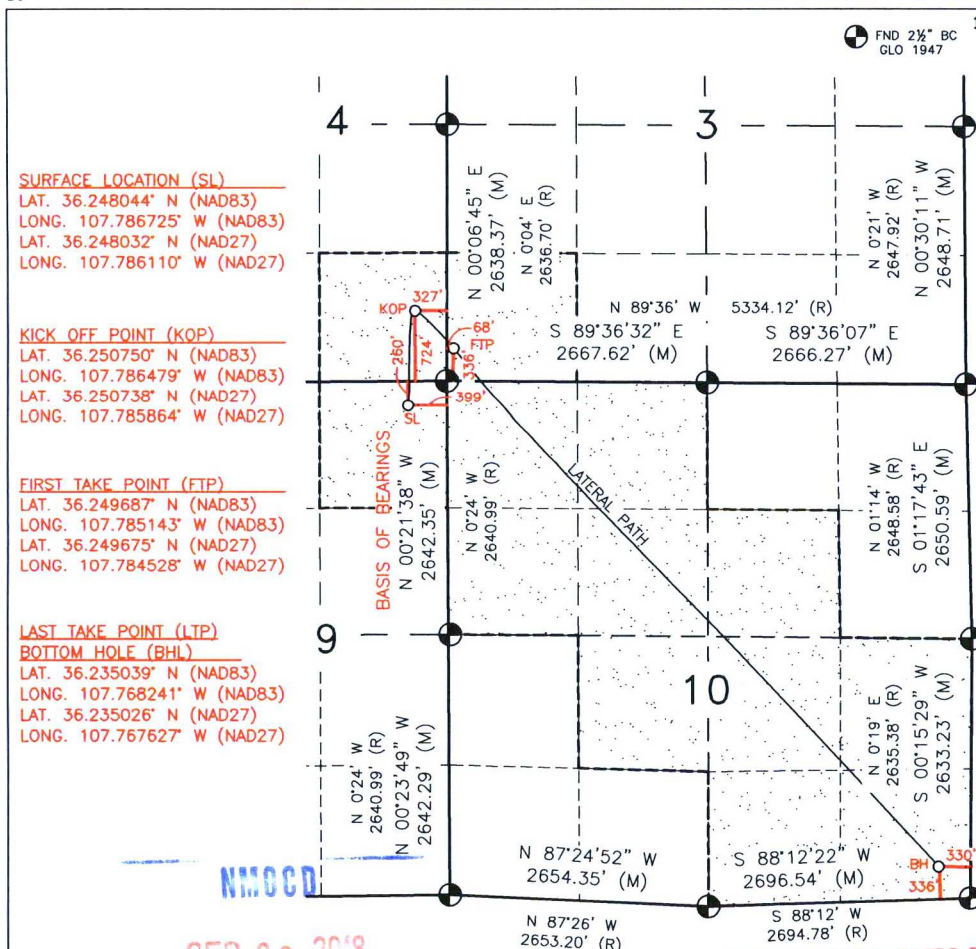
¹³ Joint or Infill

¹⁴ Consolidation Code

¹⁵ Order No.

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

16



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.

Steven Merrell 09/27/18
Signature Date

Steven Merrell

Printed Name

Steven.Merrell@encana.com

E-mail Address

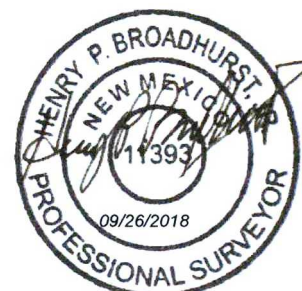
SURVEYOR CERTIFICATION

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.

SEPTEMBER 11, 2018

Date of Survey

Signature and Seal of Professional Surveyor:



SEP 28 2018

DISTRICT III

CONFIDENTIAL

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OIL CONSERVATION DIVISION

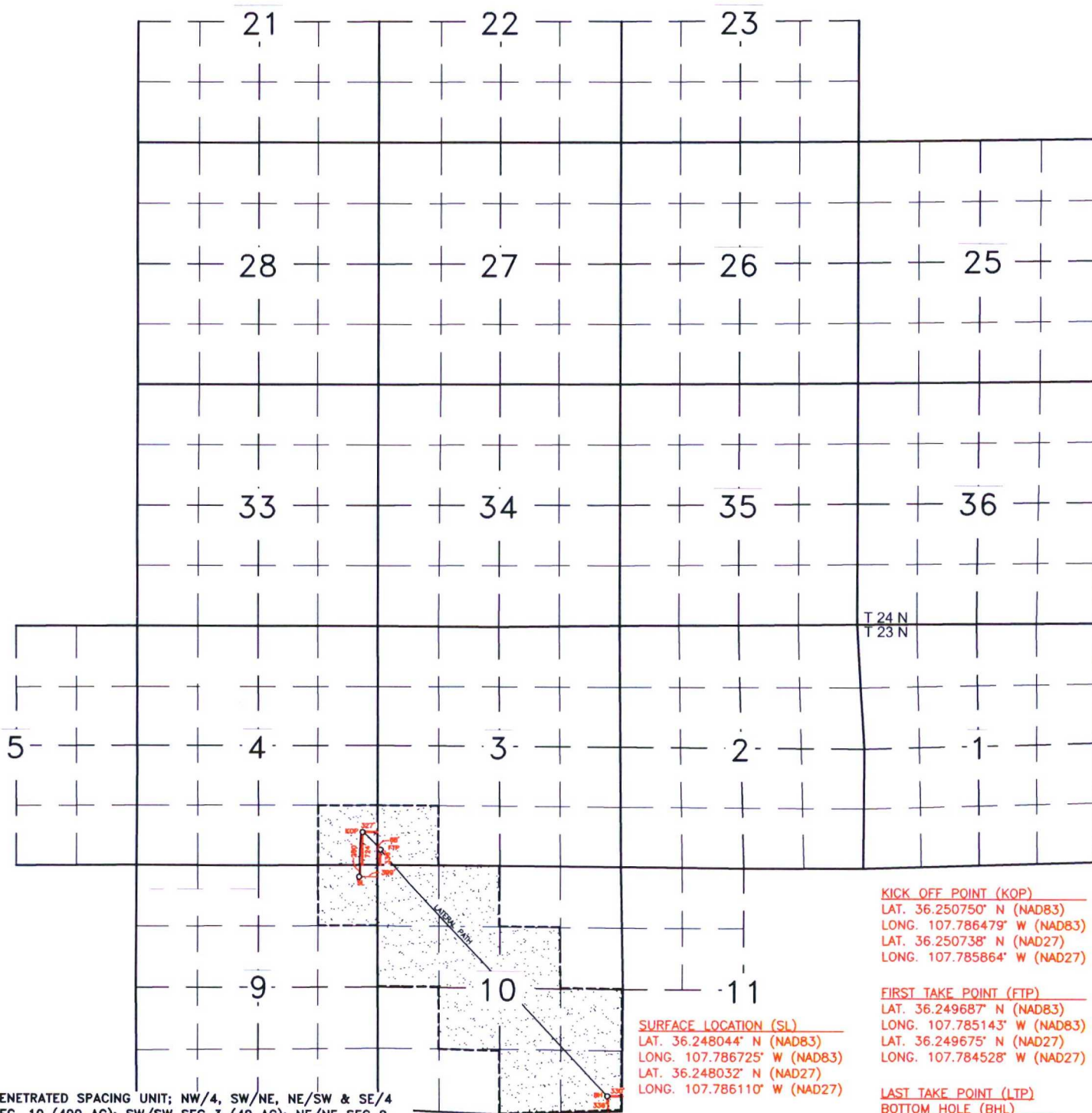
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☒ AS-DRILLED

☐ AMENDED REPORT

ENCANA OIL & GAS (USA) INC.
NAGEEZI UNIT #510H



PENETRATED SPACING UNIT; NW/4, SW/NE, NE/SW & SE/4
SEC. 10 (400 AC); SW/SW SEC 3 (40 AC); NE/NE SEC 9
(40 AC); SE/SE SEC 4 (40 AC) =
520 ACRES TOTAL

10,415.12 ACRES: SEC. 21-23 (S/2); 25-28, 33-36, 1-4,
9-10 (ALL); 5 (W/2); 11 (NW/4) - UNDIVIDED UNIT

KICK OFF POINT (KOP)

LAT. 36.250750° N (NAD83)
LONG. 107.786479° W (NAD83)
LAT. 36.250738° N (NAD27)
LONG. 107.785864° W (NAD27)

FIRST TAKE POINT (FTP)

LAT. 36.249687° N (NAD83)
LONG. 107.785143° W (NAD83)
LAT. 36.249675° N (NAD27)
LONG. 107.784528° W (NAD27)

SURFACE LOCATION (SL)

LAT. 36.248044° N (NAD83)
LONG. 107.786725° W (NAD83)
LAT. 36.248032° N (NAD27)
LONG. 107.786110° W (NAD27)

LAST TAKE POINT (LTP)

BOTTOM HOLE (BHL)
LAT. 36.235039° N (NAD83)
LONG. 107.768241° W (NAD83)
LAT. 36.235026° N (NAD27)
LONG. 107.767627° W (NAD27)



Scientific Drilling

Directional Survey Certification

2948 I-70 Business Loop
Grand Junction, CO 81504
(970)-245-9447 Fax (970)-245-9454

Operator	EnCana
Well Name & No.	Nageezi Unit 510H
County & State	San Juan County, NM
SDI Job No.	OP.0012262
Rig	Aztec 920

I, Janie Collins, having personal knowledge of all the facts, hereby
certify that the attached directional survey run from a measured depth of 368 feet to a
measured depth of 12,540 feet is true and correct as determined from all available records.


Signature

27-Aug-18
Date

Janie Collins
Colorado District Well Planner
Scientific Drilling International

NMOC

SEP 27 2018

DISTRICT III



Scientific Drilling, Intl
Survey Report



Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: Nageezi Unit
Well: Nageezi Unit 510H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Nageezi Unit 510H
TVD Reference: GL 6748' & RKB 14' @ 6762.00ft (Aztec 920)
MD Reference: GL 6748' & RKB 14' @ 6762.00ft (Aztec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

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

Site	Nageezi Unit				
Site Position:		Northing:	1,909,590.56 usft	Latitude:	36.2480460
From:	Lat/Long	Easting:	2,736,924.75 usft	Longitude:	-107.7864190
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.03 °

Well	Nageezi Unit 510H					
Well Position	+N/-S	0.00 ft	Northing:	1,909,589.79 usft	Latitude:	36.2480440
	+E/-W	0.00 ft	Easting:	2,736,834.52 usft	Longitude:	-107.7867250
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	6,748.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/11/2018	8.95	62.80	49,548

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	130.99	

Survey Program		Date	8/17/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
368.00	5,150.00	Survey #1 - MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM	
5,232.00	12,540.00	Survey #2 - Lateral MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
368.00	1.01	317.01	367.98	2.37	-2.21	-3.23	0.27	0.27	0.00
429.00	1.40	351.09	428.97	3.50	-2.69	-4.33	1.31	0.64	55.87
490.00	2.46	7.50	489.93	5.54	-2.64	-5.62	1.94	1.74	26.90
551.00	3.95	2.95	550.84	8.93	-2.36	-7.64	2.48	2.44	-7.46
611.00	4.77	0.35	610.66	13.49	-2.24	-10.54	1.41	1.37	-4.33
671.00	5.58	1.71	670.42	18.90	-2.14	-14.01	1.37	1.35	2.27
733.00	5.90	3.01	732.11	25.10	-1.88	-17.88	0.56	0.52	2.10
794.00	7.40	7.61	792.69	32.12	-1.19	-21.97	2.61	2.46	7.54
855.00	8.15	7.76	853.13	40.30	-0.09	-26.50	1.23	1.23	0.25



Scientific Drilling, Intl
Survey Report



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Wellbore: OH
Design: OH

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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
916.00	8.97	8.16	913.45	49.29	1.17	-31.45	1.35	1.34	0.66
978.00	10.23	3.28	974.58	59.57	2.17	-37.44	2.42	2.03	-7.87
1,039.00	10.26	0.43	1,034.61	70.41	2.52	-44.28	0.83	0.05	-4.67
1,099.00	11.34	2.62	1,093.55	81.65	2.83	-51.42	1.93	1.80	3.65
1,159.00	12.30	5.25	1,152.28	93.91	3.69	-58.81	1.83	1.60	4.38
1,220.00	12.17	6.82	1,211.89	106.76	5.04	-66.22	0.59	-0.21	2.57
1,281.00	13.79	9.34	1,271.33	120.32	6.99	-73.65	2.81	2.66	4.13
1,341.00	15.51	7.86	1,329.38	135.32	9.25	-81.78	2.93	2.87	-2.47
1,402.00	16.64	3.92	1,387.99	152.12	10.96	-91.51	2.57	1.85	-6.46
1,462.00	16.79	359.39	1,445.46	169.36	11.45	-102.44	2.19	0.25	-7.55
1,522.00	17.00	358.91	1,502.87	186.79	11.19	-114.07	0.42	0.35	-0.80
1,583.00	17.90	358.33	1,561.06	205.08	10.75	-126.40	1.50	1.48	-0.95
1,643.00	18.54	359.90	1,618.06	223.83	10.47	-138.92	1.34	1.07	2.62
1,705.00	18.83	359.03	1,676.79	243.69	10.28	-152.09	0.65	0.47	-1.40
1,765.00	18.87	359.38	1,733.57	263.08	10.01	-165.00	0.20	0.07	0.58
1,826.00	19.24	358.32	1,791.23	282.99	9.61	-178.37	0.83	0.61	-1.74
1,887.00	18.55	358.11	1,848.94	302.73	8.99	-191.78	1.14	-1.13	-0.34
1,948.00	18.42	359.66	1,906.79	322.07	8.62	-204.75	0.83	-0.21	2.54
2,010.00	19.05	359.56	1,965.51	341.98	8.48	-217.91	1.02	1.02	-0.16
2,071.00	18.81	2.24	2,023.21	361.76	8.79	-230.66	1.48	-0.39	4.39
2,131.00	18.24	0.24	2,080.10	380.82	9.21	-242.84	1.42	-0.95	-3.33
2,192.00	17.94	358.74	2,138.09	399.76	9.04	-255.39	0.91	-0.49	-2.46
2,254.00	17.02	359.19	2,197.22	418.38	8.70	-267.86	1.50	-1.48	0.73
2,315.00	17.33	358.63	2,255.50	436.39	8.36	-279.93	0.58	0.51	-0.92
2,375.00	17.44	358.70	2,312.76	454.31	7.94	-292.00	0.19	0.18	0.12
2,436.00	16.85	1.05	2,371.05	472.29	7.89	-303.83	1.49	-0.97	3.85
2,498.00	16.95	0.87	2,430.37	490.31	8.20	-315.42	0.18	0.16	-0.29
2,558.00	17.08	1.72	2,487.75	507.86	8.59	-326.63	0.47	0.22	1.42
2,619.00	17.36	2.29	2,546.01	525.91	9.23	-337.99	0.54	0.46	0.93
2,680.00	17.06	2.77	2,604.28	543.94	10.02	-349.22	0.54	-0.49	0.79
2,741.00	16.67	2.43	2,662.66	561.62	10.83	-360.21	0.66	-0.64	-0.56
2,802.00	16.60	1.79	2,721.11	579.07	11.47	-371.17	0.32	-0.11	-1.05
2,863.00	17.86	1.81	2,779.37	597.13	12.04	-382.59	2.07	2.07	0.03
2,924.00	18.20	3.21	2,837.37	615.99	12.87	-394.33	0.90	0.56	2.30
2,984.00	18.54	2.83	2,894.31	634.87	13.86	-405.97	0.60	0.57	-0.63
3,046.00	17.59	0.35	2,953.26	654.08	14.41	-418.16	1.97	-1.53	-4.00
3,106.00	16.74	357.85	3,010.59	671.79	14.14	-429.97	1.88	-1.42	-4.17
3,166.00	16.80	0.29	3,068.03	689.09	13.86	-441.54	1.18	0.10	4.07
3,227.00	16.71	1.45	3,126.45	706.67	14.12	-452.87	0.57	-0.15	1.90
3,287.00	16.81	1.75	3,183.90	723.97	14.61	-463.85	0.22	0.17	0.50
3,349.00	17.44	1.88	3,243.15	742.22	15.18	-475.38	1.02	1.02	0.21
3,410.00	17.11	2.59	3,301.40	760.32	15.89	-486.72	0.64	-0.54	1.16
3,471.00	16.33	1.00	3,359.82	777.86	16.45	-497.80	1.48	-1.28	-2.61



Scientific Drilling, Intl
Survey Report



Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: Nageezi Unit
Well: Nageezi Unit 510H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Nageezi Unit 510H
TVD Reference: GL 6748' & RKB 14' @ 6762.00ft (Aztec 920)
MD Reference: GL 6748' & RKB 14' @ 6762.00ft (Aztec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,533.00	16.18	3.94	3,419.34	795.19	17.19	-508.61	1.35	-0.24	4.74
3,594.00	17.19	6.07	3,477.77	812.63	18.73	-518.89	1.94	1.66	3.49
3,655.00	17.10	5.62	3,536.06	830.52	20.56	-529.24	0.26	-0.15	-0.74
3,716.00	17.21	6.19	3,594.35	848.42	22.41	-539.58	0.33	0.18	0.93
3,779.00	18.76	7.05	3,654.27	867.74	24.66	-550.56	2.50	2.46	1.37
3,841.00	19.26	7.11	3,712.88	887.78	27.15	-561.83	0.81	0.81	0.10
3,904.00	18.68	4.62	3,772.46	908.15	29.25	-573.60	1.58	-0.92	-3.95
3,968.00	16.76	3.53	3,833.42	927.57	30.64	-585.29	3.04	-3.00	-1.70
4,003.00	15.79	1.60	3,867.02	937.37	31.08	-591.38	3.17	-2.77	-5.51
4,033.00	14.51	1.42	3,895.98	945.21	31.29	-596.37	4.27	-4.27	-0.60
4,064.00	13.39	8.63	3,926.07	952.64	31.93	-600.76	6.66	-3.61	23.26
4,094.00	13.25	20.64	3,955.26	959.29	33.66	-603.82	9.22	-0.47	40.03
4,125.00	13.23	32.00	3,985.45	965.63	36.79	-605.61	8.38	-0.06	36.65
4,157.00	12.60	41.47	4,016.64	971.35	41.05	-606.15	6.89	-1.97	29.59
4,188.00	12.62	51.21	4,046.90	976.00	45.92	-605.52	6.85	0.06	31.42
4,220.00	12.86	60.98	4,078.11	979.92	51.76	-603.69	6.77	0.75	30.53
4,252.00	12.46	71.20	4,109.34	982.76	58.15	-600.73	7.10	-1.25	31.94
4,284.00	12.67	80.88	4,140.57	984.43	64.88	-596.74	6.61	0.66	30.25
4,315.00	13.45	91.47	4,170.78	984.88	71.84	-591.78	8.11	2.52	34.16
4,347.00	14.70	100.69	4,201.82	984.03	79.55	-585.40	8.01	3.91	28.81
4,378.00	15.84	108.95	4,231.73	981.93	87.42	-578.08	7.91	3.68	26.65
4,411.00	16.78	116.05	4,263.40	978.37	95.96	-569.31	6.67	2.85	21.52
4,442.00	17.24	121.28	4,293.05	974.02	103.91	-560.45	5.15	1.48	16.87
4,474.00	18.48	126.21	4,323.51	968.56	112.05	-550.72	6.11	3.88	15.41
4,505.00	20.19	128.96	4,352.76	962.29	120.18	-540.48	6.25	5.52	8.87
4,537.00	22.14	129.85	4,382.60	954.96	129.10	-528.93	6.18	6.09	2.78
4,569.00	23.77	132.10	4,412.06	946.77	138.52	-516.46	5.78	5.09	7.03
4,600.00	25.80	132.38	4,440.21	938.03	148.14	-503.46	6.56	6.55	0.90
4,632.00	28.20	132.91	4,468.72	928.19	158.82	-488.94	7.54	7.50	1.66
4,664.00	30.52	134.08	4,496.61	917.39	170.20	-473.27	7.47	7.25	3.66
4,695.00	32.60	135.40	4,523.02	905.96	181.72	-457.08	7.07	6.71	4.26
4,726.00	34.98	135.52	4,548.78	893.68	193.81	-439.90	7.68	7.68	0.39
4,758.00	37.08	135.10	4,574.66	880.30	207.05	-421.13	6.61	6.56	-1.31
4,790.00	39.35	134.63	4,599.80	866.34	221.08	-401.38	7.15	7.09	-1.47
4,821.00	41.57	136.06	4,623.38	852.02	235.21	-381.32	7.76	7.16	4.61
4,853.00	43.51	135.91	4,646.96	836.46	250.24	-359.77	6.07	6.06	-0.47
4,884.00	45.69	134.84	4,669.03	820.98	265.53	-338.07	7.44	7.03	-3.45
4,916.00	48.06	134.76	4,690.91	804.52	282.11	-314.77	7.41	7.41	-0.25
4,947.00	51.88	136.49	4,710.84	787.55	298.70	-291.11	13.04	12.32	5.58
4,979.00	54.38	136.33	4,730.04	769.01	316.35	-265.63	7.82	7.81	-0.50
5,011.00	56.68	137.39	4,748.15	749.76	334.38	-239.39	7.69	7.19	3.31
5,042.00	59.41	139.67	4,764.56	730.05	351.79	-213.32	10.79	8.81	7.35
5,074.00	62.41	138.28	4,780.11	708.96	370.15	-185.63	10.11	9.38	-4.34



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Database: Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,105.00	65.66	138.24	4,793.69	688.17	388.70	-157.99	10.48	10.48	-0.13
5,136.00	69.45	138.70	4,805.52	666.72	407.69	-129.59	12.30	12.23	1.48
5,150.00	69.88	138.96	4,810.38	656.84	416.33	-116.58	3.53	3.07	1.86
5,232.00	69.97	140.41	4,838.53	598.12	466.16	-40.45	1.66	0.11	1.77
5,263.00	70.97	139.72	4,848.90	575.71	484.91	-11.60	3.85	3.23	-2.23
5,326.00	79.06	140.87	4,865.17	528.93	523.75	48.40	12.96	12.84	1.83
5,357.00	82.17	141.24	4,870.23	505.14	542.97	78.51	10.10	10.03	1.19
5,389.00	84.63	141.66	4,873.90	480.28	562.78	109.77	7.80	7.69	1.31
5,420.00	87.65	141.06	4,875.99	456.13	582.09	140.19	9.93	9.74	-1.94
5,452.00	89.40	140.95	4,876.81	431.27	602.22	171.69	5.48	5.47	-0.34
5,516.00	88.96	141.11	4,877.73	381.51	642.47	234.70	0.73	-0.69	0.25
5,578.00	88.36	141.12	4,879.18	333.27	681.38	295.72	0.97	-0.97	0.02
5,641.00	89.77	140.90	4,880.21	284.31	721.01	357.75	2.27	2.24	-0.35
5,704.00	91.38	140.53	4,879.58	235.55	760.90	419.84	2.62	2.56	-0.59
5,767.00	92.05	140.62	4,877.69	186.90	800.89	481.93	1.07	1.06	0.14
5,830.00	91.85	140.09	4,875.55	138.42	841.06	544.06	0.90	-0.32	-0.84
5,893.00	91.24	139.67	4,873.85	90.26	881.64	606.28	1.18	-0.97	-0.67
5,957.00	90.74	139.59	4,872.74	41.51	923.09	669.54	0.79	-0.78	-0.13
6,019.00	89.83	139.49	4,872.43	-5.66	963.32	730.85	1.48	-1.47	-0.16
6,081.00	88.83	138.39	4,873.16	-52.41	1,004.04	792.25	2.40	-1.61	-1.77
6,145.00	89.26	137.01	4,874.23	-99.73	1,047.11	855.80	2.26	0.67	-2.16
6,208.00	89.20	135.92	4,875.07	-145.40	1,090.50	918.51	1.73	-0.10	-1.73
6,272.00	89.97	135.59	4,875.54	-191.25	1,135.15	982.28	1.31	1.20	-0.52
6,335.00	90.20	136.62	4,875.44	-236.64	1,178.83	1,045.03	1.68	0.37	1.63
6,399.00	89.43	135.70	4,875.65	-282.81	1,223.16	1,108.77	1.87	-1.20	-1.44
6,461.00	90.40	136.09	4,875.74	-327.32	1,266.31	1,170.54	1.69	1.56	0.63
6,525.00	90.67	136.45	4,875.14	-373.57	1,310.55	1,234.27	0.70	0.42	0.56
6,587.00	90.91	137.05	4,874.29	-418.72	1,353.02	1,295.95	1.04	0.39	0.97
6,650.00	90.50	137.35	4,873.51	-464.95	1,395.83	1,358.57	0.81	-0.65	0.48
6,713.00	90.91	137.49	4,872.74	-511.33	1,438.45	1,421.17	0.69	0.65	0.22
6,777.00	93.29	137.29	4,870.39	-558.40	1,481.74	1,484.73	3.73	3.72	-0.31
6,840.00	93.69	137.88	4,866.56	-604.82	1,524.16	1,547.19	1.13	0.63	0.94
6,903.00	93.12	137.73	4,862.82	-651.41	1,566.40	1,609.64	0.94	-0.90	-0.24
6,966.00	93.83	137.52	4,859.00	-697.87	1,608.78	1,672.10	1.18	1.13	-0.33
7,030.00	93.59	137.08	4,854.86	-744.81	1,652.09	1,735.58	0.78	-0.38	-0.69
7,093.00	93.56	137.03	4,850.93	-790.83	1,694.93	1,798.10	0.09	-0.05	-0.08
7,156.00	93.12	136.74	4,847.26	-836.74	1,737.92	1,860.66	0.84	-0.70	-0.46
7,219.00	92.85	136.78	4,843.98	-882.58	1,781.02	1,923.26	0.43	-0.43	0.06
7,283.00	93.66	136.96	4,840.34	-929.21	1,824.70	1,986.82	1.30	1.27	0.28
7,346.00	94.06	137.20	4,836.10	-975.24	1,867.50	2,049.32	0.74	0.63	0.38
7,409.00	92.99	136.78	4,832.23	-1,021.22	1,910.39	2,111.86	1.82	-1.70	-0.67
7,474.00	92.65	136.93	4,829.03	-1,068.59	1,954.79	2,176.44	0.57	-0.52	0.23
7,537.00	91.58	136.25	4,826.71	-1,114.32	1,998.05	2,239.09	2.01	-1.70	-1.08
7,600.00	91.27	135.98	4,825.14	-1,159.71	2,041.71	2,301.82	0.65	-0.49	-0.43



Scientific Drilling, Intl
Survey Report



Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: Nageezi Unit
Well: Nageezi Unit 510H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Nageezi Unit 510H
TVD Reference: GL 6748' & RKB 14' @ 6762.00ft (Aztec 920)
MD Reference: GL 6748' & RKB 14' @ 6762.00ft (Aztec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,663.00	91.44	135.59	4,823.65	-1,204.85	2,085.63	2,364.58	0.68	0.27	-0.62
7,726.00	90.67	135.98	4,822.49	-1,250.00	2,129.56	2,427.35	1.37	-1.22	0.62
7,787.00	90.70	135.44	4,821.76	-1,293.66	2,172.15	2,488.14	0.89	0.05	-0.89
7,848.00	90.70	135.31	4,821.01	-1,337.07	2,215.00	2,548.96	0.21	0.00	-0.21
7,909.00	90.47	134.79	4,820.39	-1,380.24	2,258.09	2,609.80	0.93	-0.38	-0.85
7,970.00	90.74	134.91	4,819.75	-1,423.26	2,301.34	2,670.66	0.48	0.44	0.20
8,031.00	91.10	137.10	4,818.77	-1,467.13	2,343.70	2,731.41	3.64	0.59	3.59
8,092.00	90.30	138.27	4,818.02	-1,512.24	2,384.76	2,791.99	2.32	-1.31	1.92
8,153.00	90.22	137.72	4,817.75	-1,557.56	2,425.58	2,852.54	0.91	-0.13	-0.90
8,214.00	90.64	137.48	4,817.29	-1,602.61	2,466.71	2,913.13	0.79	0.69	-0.39
8,273.00	89.73	136.31	4,817.10	-1,645.68	2,507.03	2,971.81	2.51	-1.54	-1.98
8,334.00	89.36	135.91	4,817.58	-1,689.64	2,549.32	3,032.57	0.89	-0.61	-0.66
8,396.00	90.07	136.38	4,817.89	-1,734.35	2,592.27	3,094.32	1.37	1.15	0.76
8,457.00	90.00	136.00	4,817.85	-1,778.37	2,634.50	3,155.06	0.63	-0.11	-0.62
8,518.00	89.93	135.43	4,817.89	-1,822.04	2,677.09	3,215.86	0.94	-0.11	-0.93
8,579.00	90.44	135.04	4,817.69	-1,865.35	2,720.05	3,276.69	1.05	0.84	-0.64
8,641.00	90.27	137.04	4,817.31	-1,909.97	2,763.08	3,338.44	3.24	-0.27	3.23
8,702.00	90.77	137.37	4,816.76	-1,954.73	2,804.52	3,399.08	0.98	0.82	0.54
8,762.00	90.13	137.65	4,816.28	-1,998.97	2,845.05	3,458.69	1.16	-1.07	0.47
8,822.00	89.93	138.07	4,816.25	-2,043.46	2,885.30	3,518.26	0.78	-0.33	0.70
8,883.00	89.16	137.27	4,816.74	-2,088.56	2,926.38	3,578.84	1.82	-1.26	-1.31
8,944.00	89.46	136.60	4,817.47	-2,133.12	2,968.03	3,639.51	1.20	0.49	-1.10
9,003.00	90.07	136.75	4,817.71	-2,176.04	3,008.51	3,698.22	1.06	1.03	0.25
9,064.00	90.84	137.37	4,817.23	-2,220.69	3,050.06	3,758.88	1.62	1.26	1.02
9,125.00	90.50	136.91	4,816.52	-2,265.41	3,091.55	3,819.52	0.94	-0.56	-0.75
9,185.00	90.37	135.70	4,816.06	-2,308.79	3,133.00	3,879.26	2.03	-0.22	-2.02
9,245.00	90.60	135.39	4,815.55	-2,351.61	3,175.02	3,939.07	0.64	0.38	-0.52
9,306.00	90.80	135.52	4,814.81	-2,395.08	3,217.81	3,999.88	0.39	0.33	0.21
9,368.00	89.93	135.20	4,814.41	-2,439.20	3,261.37	4,061.70	1.50	-1.40	-0.52
9,428.00	89.97	135.94	4,814.47	-2,482.04	3,303.37	4,121.50	1.24	0.07	1.23
9,489.00	89.97	136.21	4,814.50	-2,525.98	3,345.69	4,182.26	0.44	0.00	0.44
9,550.00	90.57	135.47	4,814.21	-2,569.74	3,388.18	4,243.04	1.56	0.98	-1.21
9,611.00	91.41	135.89	4,813.16	-2,613.37	3,430.79	4,303.83	1.54	1.38	0.69
9,673.00	91.28	134.86	4,811.70	-2,657.49	3,474.34	4,365.63	1.67	-0.21	-1.66
9,734.00	91.11	136.47	4,810.43	-2,701.11	3,516.95	4,426.41	2.65	-0.28	2.64
9,794.00	90.94	137.26	4,809.35	-2,744.89	3,557.97	4,486.09	1.35	-0.28	1.32
9,855.00	90.84	136.23	4,808.41	-2,789.31	3,599.77	4,546.77	1.70	-0.16	-1.69
9,917.00	90.20	135.03	4,807.84	-2,833.62	3,643.12	4,608.56	2.19	-1.03	-1.94
9,977.00	91.01	135.17	4,807.21	-2,876.12	3,685.47	4,668.41	1.37	1.35	0.23
10,038.00	90.40	135.17	4,806.46	-2,919.38	3,728.47	4,729.24	1.00	-1.00	0.00
10,099.00	90.44	134.86	4,806.01	-2,962.52	3,771.59	4,790.09	0.51	0.07	-0.51
10,161.00	89.56	134.27	4,806.01	-3,006.03	3,815.76	4,851.97	1.71	-1.42	-0.95
10,221.00	89.19	134.62	4,806.67	-3,048.04	3,858.59	4,911.85	0.85	-0.62	0.58



Scientific Drilling, Intl
Survey Report



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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,282.00	90.64	136.84	4,806.76	-3,091.71	3,901.17	4,972.64	4.35	2.38	3.64
10,343.00	90.94	138.25	4,805.92	-3,136.72	3,942.34	5,033.23	2.36	0.49	2.31
10,404.00	88.96	135.89	4,805.97	-3,181.37	3,983.88	5,093.88	5.05	-3.25	-3.87
10,465.00	90.00	135.55	4,806.52	-3,225.04	4,026.47	5,154.67	1.79	1.70	-0.56
10,526.00	91.58	135.74	4,805.68	-3,268.65	4,069.11	5,215.46	2.61	2.59	0.31
10,587.00	91.41	137.40	4,804.09	-3,312.94	4,111.03	5,276.15	2.73	-0.28	2.72
10,647.00	91.14	138.43	4,802.76	-3,357.45	4,151.23	5,335.70	1.77	-0.45	1.72
10,709.00	91.01	138.14	4,801.59	-3,403.73	4,192.48	5,397.18	0.51	-0.21	-0.47
10,769.00	90.70	137.78	4,800.70	-3,448.28	4,232.66	5,456.73	0.79	-0.52	-0.60
10,829.00	90.57	137.11	4,800.03	-3,492.48	4,273.23	5,516.35	1.14	-0.22	-1.12
10,890.00	90.24	136.14	4,799.60	-3,536.81	4,315.12	5,577.05	1.68	-0.54	-1.59
10,950.00	89.77	136.11	4,799.60	-3,580.07	4,356.71	5,636.81	0.78	-0.78	-0.05
11,012.00	90.23	136.00	4,799.60	-3,624.71	4,399.73	5,698.57	0.76	0.74	-0.18
11,073.00	91.07	136.74	4,798.90	-3,668.85	4,441.82	5,759.30	1.84	1.38	1.21
11,134.00	89.80	136.01	4,798.44	-3,713.01	4,483.90	5,820.02	2.40	-2.08	-1.20
11,196.00	89.43	136.38	4,798.86	-3,757.75	4,526.82	5,881.77	0.84	-0.60	0.60
11,257.00	89.60	136.95	4,799.37	-3,802.12	4,568.68	5,942.46	0.98	0.28	0.93
11,318.00	89.63	137.58	4,799.78	-3,846.92	4,610.07	6,003.10	1.03	0.05	1.03
11,379.00	89.26	137.55	4,800.38	-3,891.94	4,651.23	6,063.69	0.61	-0.61	-0.05
11,440.00	90.54	137.00	4,800.48	-3,936.75	4,692.62	6,124.32	2.28	2.10	-0.90
11,500.00	90.27	136.08	4,800.06	-3,980.30	4,733.89	6,184.04	1.60	-0.45	-1.53
11,561.00	90.17	136.41	4,799.82	-4,024.36	4,776.07	6,244.78	0.57	-0.16	0.54
11,622.00	89.69	136.93	4,799.90	-4,068.73	4,817.93	6,305.48	1.16	-0.79	0.85
11,683.00	90.13	137.11	4,799.99	-4,113.36	4,859.52	6,366.15	0.78	0.72	0.30
11,746.00	89.97	137.25	4,799.94	-4,159.57	4,902.34	6,428.78	0.34	-0.25	0.22
11,810.00	90.00	136.44	4,799.96	-4,206.26	4,946.11	6,492.44	1.27	0.05	-1.27
11,873.00	89.83	135.01	4,800.05	-4,251.36	4,990.09	6,555.23	2.29	-0.27	-2.27
11,936.00	90.84	136.57	4,799.68	-4,296.52	5,034.02	6,618.00	2.95	1.60	2.48
12,000.00	90.03	137.88	4,799.19	-4,343.49	5,077.48	6,681.62	2.41	-1.27	2.05
12,063.00	89.30	136.12	4,799.56	-4,389.57	5,120.44	6,744.27	3.02	-1.16	-2.79
12,126.00	88.76	135.13	4,800.63	-4,434.59	5,164.49	6,807.05	1.79	-0.86	-1.57
12,189.00	90.10	135.60	4,801.26	-4,479.42	5,208.75	6,869.87	2.25	2.13	0.75
12,252.00	90.00	136.90	4,801.20	-4,524.93	5,252.32	6,932.60	2.07	-0.16	2.06
12,315.00	90.10	136.48	4,801.15	-4,570.77	5,295.53	6,995.29	0.69	0.16	-0.67
12,379.00	90.34	135.79	4,800.90	-4,616.91	5,339.88	7,059.03	1.14	0.38	-1.08
12,442.00	90.13	135.41	4,800.64	-4,661.92	5,383.96	7,121.82	0.69	-0.33	-0.60
12,482.00	90.10	134.84	4,800.56	-4,690.27	5,412.18	7,161.72	1.43	-0.08	-1.43
12,540.00	90.10	134.84	4,800.46	-4,731.16	5,453.31	7,219.59	0.00	0.00	0.00



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Local Co-ordinate Reference: Well Nageezi Unit 510H
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Checked By: _____	Approved By: _____	Date: _____
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