

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Colgate Operating, LLC 300 N Marienfeld Street, Suite 1000 Midland, Tx 79701		² OGRID Number 371449	
		³ Reason for Filing Code/ Effective Date RT	
⁴ API Number 30 – 015 – 47704	⁵ Pool Name OLD MILLMAN RANCH		⁶ Pool Code 48035
⁷ Property Code 329759	⁸ Property Name DAWSON 34 FEDERAL COM		⁹ Well Number 123H

II. ¹⁰ Surface Location

UL or lot no. I	Section 34	Township 19S	Range 28E	Lot Idn	Feet from the 2534	North/South Line South	Feet from the 340	East/West line East	County Eddy
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¹¹ Bottom Hole Location

UL or lot no. L	Section 33	Township 19S	Range 28E	Lot Idn	Feet from the 1652	North/South line South	Feet from the 25	East/West line West	County Eddy
¹² Lse Code F	¹³ Producing Method Code		¹⁴ Gas Connection Date 01/01/2022		¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date	

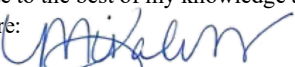
III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
329097	LM TOUCHDOWN, LLC	O
329097	LM TOUCHDOWN, LLC	G

IV. Well Completion Data

²¹ Spud Date 12/02/2021	²² Ready Date 05/06/2022	²³ TD 17,653 MD 7,564 TVD	²⁴ PBTD 17,690 MD 7,214 TVD	²⁵ Perforations 3,078-7,878	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement
17.5		13.375	356		350 Tail
12.25		9.625	2,992		530 Lead 205 Tail
7.875		5.5	17,690		720 Lead 1,225 Tail

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas		⁴¹ Test Method
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 			OIL CONSERVATION DIVISION		
Printed name: Mikah Thomas			Approved by: PATRICIA MARTINEZ		
Title: Sr. Regulatory Analyst			Title: PETROLEUM SPECIALIST		
E-mail Address: mthomas@colgateenergy.com			Approval Date: 5/13/2022		
Date: 04/20/2022		Phone: 432-695-4272	RT EXPIRES 8/6/2022		

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		³ Reason for Filing Code/ Effective Date RT	
⁴ API Number 30 – 015 – 47704	⁵ Pool Name WINCHESTER; BS		⁶ Pool Code 65010
⁷ Property Code 329759	⁸ Property Name DAWSON 34 FEDERAL COM		⁹ Well Number 123H

II. ¹⁰ Surface Location

UL or lot no. I	Section 34	Township 19S	Range 28E	Lot Idn	Feet from the 2534	North/South Line South	Feet from the 340	East/West line East	County Eddy
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¹¹ Bottom Hole Location

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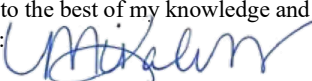
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²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set	
17.5		13.375		356	
12.25		9.625		2,992	
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⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 			OIL CONSERVATION DIVISION		
Printed name: Mikah Thomas			Approved by:		
Title: Sr. Regulatory Analyst			Title:		
E-mail Address: mthomas@colgateenergy.com			Approval Date:		
Date: 04/20/2022		Phone: 432-695-4272			

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

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 30-015-47704	2 Pool Code 48035	3 Pool Name OLD MILLMAN RANCH; BS
4 Property Code 329759	5 Property Name DAWSON 34 FED COM	6 Well Number 123H
7 OGRID No. 371449	8 Operator Name COLGATE OPERATING, LLC	9 Elevation 3309.0'

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
I	34	19-S	28-E		2534'	SOUTH	340'	EAST	EDDY

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
L	33	19-S	28-E		1652'	SOUTH	25'	WEST	EDDY

12 Dedicated Acres 320- 160	13 Joint or Infill	14 Consolidation Code C	15 Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

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: *Mikah Thomas* Date: 03.14.2022

Printed Name: Mikah Thomas

E-mail Address: mthomas@colgateenergy.com

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.

Date of Survey: 2/23/2022

Signature and Seal of Professional Surveyor: *Mark J. Murray*

Certificate Number: 12177

CORNER DATA

NEW MEXICO EAST - NAD 83

A - FOUND IRON PIPE W/ BRASS CAP N:590907.03' E:585541.35'

B - FOUND 5/8" IRON ROD W/ ALUM CAP N:590925.86' E:588152.01'

C - FOUND IRON PIPE W/ BRASS CAP N:590945.00' E:590760.68'

D - FOUND IRON PIPE W/ BRASS CAP N:590962.75' E:593372.54'

E - FOUND IRON PIPE W/ BRASS CAP N:590981.15' E:595983.74'

F - FOUND IRON PIPE W/ BRASS CAP N:588340.39' E:595907.65'

G - FOUND IRON PIPE W/ BRASS CAP N:585701.20' E:595828.61'

H - FOUND 5/8" IRON ROD W/ ALUM CAP N:585686.35' E:593171.86'

I - FOUND IRON PIPE W/ BRASS CAP N:585671.76' E:590514.87'

J - FOUND IRON PIPE W/ BRASS CAP N:585656.50' E:587858.72'

K - FOUND IRON PIPE W/ BRASS CAP N:585641.97' E:585202.31'

L - FOUND IRON PIPE W/ BRASS CAP N:588276.86' E:585371.95'

M - FOUND IRON PIPE W/ BRASS CAP N:588307.96' E:590637.53'

SURFACE HOLE LOCATION (SHL)
NEW MEXICO EAST - NAD 83
X=595564.33 LAT.= 32.61698284° N
Y=588234.08 LONG.= 104.15721188° W
NEW MEXICO EAST - NAD 27
X=554384.31 LAT.= 32.61686552° N
Y=588172.31 LONG.= 104.15670446° W
2534' FSL, 340' FEL - SECTION 34
104' FNL, 340' FEL - LEASE LINE

FIRST TAKE POINT (FTP)
NEW MEXICO EAST - NAD 83
X=595585.95 LAT.= 32.61468458° N
Y=587397.99 LONG.= 104.15714615° W
NEW MEXICO EAST - NAD 27
X=554405.92 LAT.= 32.61456724° N
Y=587336.25 LONG.= 104.15663879° W
1698' FSL, 293' FEL - SECTION 34
379' FSL, 293' FEL - LEASE LINE
MD = 7,373.58'

LAST TAKE POINT (LTP)
NEW MEXICO EAST - NAD 83
X=585409.00 LAT.= 32.61444725° N
Y=587296.37 LONG.= 104.19019903° W
NEW MEXICO EAST - NAD 27
X=544228.99 LAT.= 32.61433027° N
Y=587234.71 LONG.= 104.18969086° W
1653' FSL, 100' FWL - SECTION 33
336' FSL, 100' FWL - LEASE LINE
MD = 17,634.68'

BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST - NAD 83
X=585333.71 LAT.= 32.61444417° N
Y=587295.15 LONG.= 104.19044356° W
NEW MEXICO EAST - NAD 27
X=544153.70 LAT.= 32.61432719° N
Y=587233.48 LONG.= 104.18993538° W
1652' FSL, 25' FWL - SECTION 33
335' FSL, 25' FWL - LEASE LINE
MD = 17,710.00'

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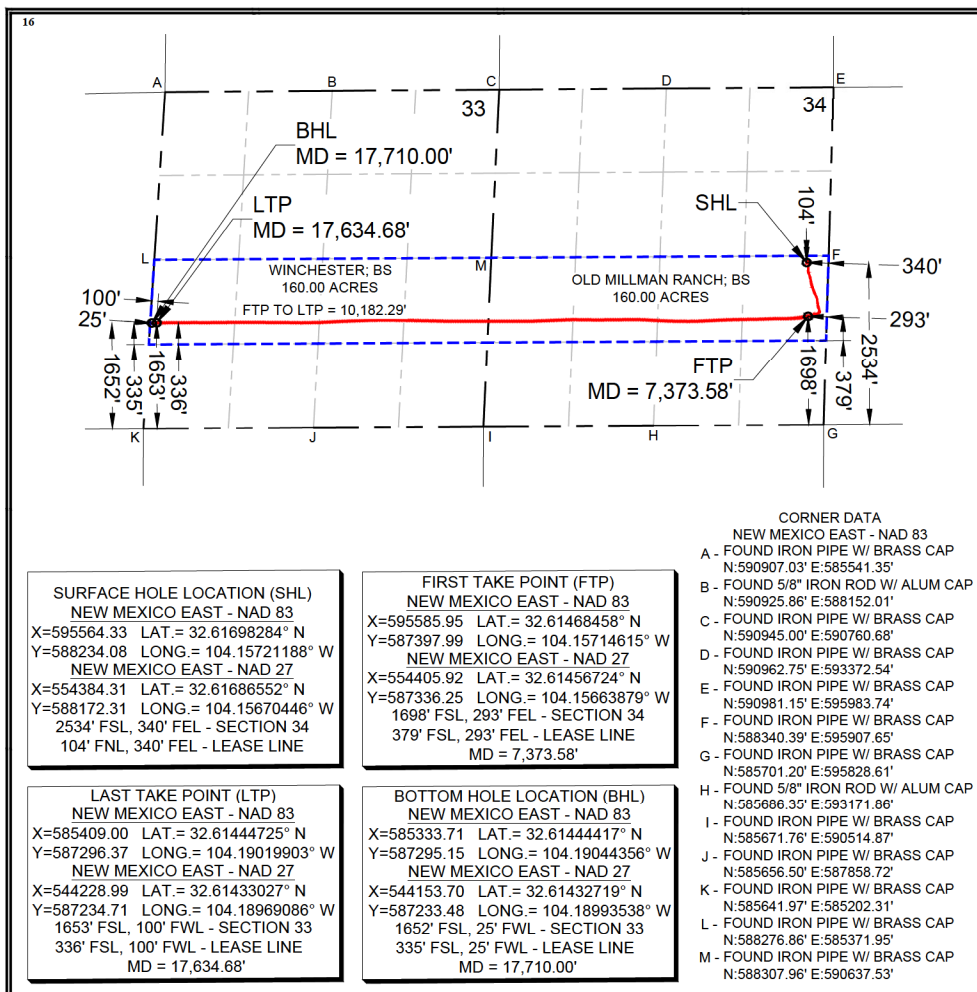
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320 160		C	

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Signature _____ Date 03.14.2022

Mikah Thomas

Printed Name _____

mthomas@colgateenergy.com

E-mail Address

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Date of Survey: _____
Signature and Seal of Professional Surveyor: _____

12177

Certificate Number



Colgate Energy

Eddy County, NM (N83-NME)

Dawson 34 Fed State Com

Dawson 34 Fed Com 123H

30-015-47704

123H

Survey: Survey #01_Gordon

Standard Survey Report

18 January, 2022



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Project	Eddy County, NM (N83-NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Dawson 34 Fed State Com		
Site Position:		Northing:	586,037.92 usft
From:	Map	Easting:	595,278.71 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.61094751
		Longitude:	-104.15815129

Well	Dawson 34 Fed Com 123H		
Well Position	+N/-S	0.00 usft	Northing: 588,234.08 usft
	+E/-W	0.00 usft	Easting: 595,564.33 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.09 °	Ground Level:	3,309.00 usft

Wellbore	123H		
Magnetics	Model Name	Sample Date	Declination (°)
	IFR	1/4/2022	7.11
			Dip Angle (°)
			60.34
			Field Strength (nT)
			47,725.90000000

Design	DRL		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			269.68

Survey Program	Date	1/18/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
14.21	17,653.00	Survey #01_Gordon (123H)	MWD+IFR1+SAG+FDIR (SQ OWSG MWD + IFR1 + Sag + FDIR Correction	
17,710.00	17,710.00	Survey #02_PTB (123H)	BLIND	BLIND

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.21	0.03	205.92	14.21	0.00	0.00	0.00	0.21	0.21	0.00	
28.43	0.05	206.27	28.43	-0.01	-0.01	0.01	0.14	0.14	2.46	
42.64	0.08	206.62	42.64	-0.03	-0.01	0.01	0.21	0.21	2.46	
56.86	0.11	206.97	56.86	-0.05	-0.02	0.02	0.21	0.21	2.46	
71.07	0.13	207.33	71.07	-0.07	-0.04	0.04	0.14	0.14	2.53	
85.29	0.16	207.68	85.29	-0.11	-0.05	0.05	0.21	0.21	2.46	
99.50	0.18	208.05	99.50	-0.14	-0.07	0.07	0.14	0.14	2.60	
109.00	0.20	208.30	109.00	-0.17	-0.09	0.09	0.21	0.21	2.66	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
Rustler										
113.71	0.21	208.41	113.71	-0.19	-0.10	0.10	0.21	0.21	2.28	
127.93	0.23	208.78	127.93	-0.23	-0.12	0.12	0.14	0.14	2.60	
142.14	0.26	209.15	142.14	-0.29	-0.15	0.15	0.21	0.21	2.60	
156.36	0.28	209.53	156.36	-0.35	-0.19	0.19	0.14	0.14	2.67	
170.57	0.31	209.91	170.57	-0.41	-0.22	0.22	0.21	0.21	2.67	
184.79	0.33	210.29	184.79	-0.48	-0.26	0.26	0.14	0.14	2.67	
199.00	0.36	210.68	199.00	-0.55	-0.30	0.31	0.21	0.21	2.74	
212.14	0.32	210.74	212.14	-0.62	-0.34	0.35	0.30	-0.30	0.46	
225.29	0.29	210.87	225.29	-0.68	-0.38	0.38	0.23	-0.23	0.99	
238.43	0.25	211.10	238.43	-0.73	-0.41	0.42	0.30	-0.30	1.75	
251.57	0.22	211.49	251.57	-0.78	-0.44	0.44	0.23	-0.23	2.97	
264.71	0.18	212.13	264.71	-0.82	-0.46	0.47	0.30	-0.30	4.87	
277.86	0.14	213.20	277.86	-0.85	-0.48	0.49	0.31	-0.30	8.14	
291.00	0.11	215.15	291.00	-0.87	-0.50	0.50	0.23	-0.23	14.84	
305.50	0.07	59.75	305.50	-0.88	-0.50	0.51	1.21	-0.28	-1,071.72	
320.00	0.23	48.58	320.00	-0.85	-0.47	0.48	1.12	1.10	-77.03	
334.50	0.40	46.71	334.50	-0.80	-0.41	0.42	1.17	1.17	-12.90	
349.00	0.57	45.91	349.00	-0.72	-0.32	0.33	1.17	1.17	-5.52	
361.00	0.71	45.51	361.00	-0.62	-0.23	0.23	1.17	1.17	-3.30	
Top of Salt										
363.50	0.74	45.45	363.50	-0.60	-0.21	0.21	1.17	1.17	-2.54	
378.00	0.92	45.13	377.99	-0.45	-0.06	0.06	1.24	1.24	-2.21	
392.67	0.91	41.90	392.66	-0.28	0.11	-0.10	0.36	-0.07	-22.02	
407.33	0.92	38.64	407.32	-0.10	0.26	-0.26	0.36	0.07	-22.24	
422.00	0.92	35.39	421.99	0.08	0.40	-0.40	0.36	0.00	-22.15	
436.67	0.93	32.16	436.66	0.28	0.53	-0.53	0.36	0.07	-22.02	
451.33	0.94	28.98	451.32	0.49	0.65	-0.65	0.36	0.07	-21.69	
466.00	0.96	25.87	465.98	0.70	0.76	-0.77	0.38	0.14	-21.20	
480.83	0.99	27.87	480.81	0.93	0.88	-0.88	0.31	0.20	13.49	
495.67	1.02	29.99	495.65	1.16	1.00	-1.01	0.32	0.20	14.29	
510.50	1.05	32.14	510.48	1.38	1.14	-1.15	0.33	0.20	14.50	
525.33	1.09	34.28	525.30	1.62	1.29	-1.30	0.38	0.27	14.43	
540.17	1.14	36.42	540.14	1.85	1.46	-1.47	0.44	0.34	14.42	
555.00	1.18	38.59	554.97	2.09	1.64	-1.66	0.40	0.27	14.63	
570.00	1.21	41.49	569.96	2.33	1.84	-1.86	0.45	0.20	19.33	
585.00	1.25	44.41	584.96	2.56	2.06	-2.08	0.50	0.27	19.47	
600.00	1.29	47.22	599.96	2.80	2.30	-2.32	0.49	0.27	18.73	
615.00	1.32	49.83	614.95	3.02	2.56	-2.58	0.44	0.20	17.40	
630.00	1.37	52.16	629.95	3.24	2.83	-2.85	0.49	0.33	15.53	
645.00	1.41	54.11	644.94	3.46	3.12	-3.14	0.41	0.27	13.00	
658.44	1.44	55.64	658.38	3.65	3.40	-3.42	0.36	0.22	11.38	
671.89	1.48	56.89	671.83	3.84	3.68	-3.70	0.38	0.30	9.29	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
682.07	1.51	57.67	682.00	3.99	3.91	-3.93	0.36	0.30	7.71	
Base of Salt										
685.33	1.52	57.92	685.26	4.03	3.98	-4.00	0.36	0.30	7.53	
698.78	1.56	58.74	698.71	4.22	4.29	-4.31	0.34	0.30	6.10	
712.22	1.59	59.39	712.14	4.41	4.60	-4.63	0.26	0.22	4.84	
725.67	1.62	59.85	725.59	4.60	4.93	-4.95	0.24	0.22	3.42	
739.11	1.65	60.09	739.02	4.80	5.26	-5.29	0.23	0.22	1.79	
752.56	1.68	60.07	752.47	4.99	5.60	-5.63	0.22	0.22	-0.15	
766.00	1.70	59.69	765.90	5.19	5.94	-5.97	0.17	0.15	-2.83	
779.43	1.71	58.76	779.32	5.39	6.28	-6.31	0.22	0.07	-6.92	
792.86	1.71	57.52	792.75	5.61	6.62	-6.66	0.28	0.00	-9.23	
806.29	1.71	56.12	806.17	5.83	6.96	-6.99	0.31	0.00	-10.42	
819.71	1.71	54.67	819.59	6.05	7.29	-7.32	0.32	0.00	-10.80	
833.14	1.71	53.28	833.01	6.29	7.61	-7.65	0.31	0.00	-10.35	
846.57	1.71	52.08	846.43	6.53	7.93	-7.97	0.27	0.00	-8.94	
860.00	1.71	51.24	859.86	6.78	8.25	-8.28	0.19	0.00	-6.25	
873.57	1.70	51.07	873.42	7.03	8.56	-8.60	0.08	-0.07	-1.25	
887.14	1.70	51.28	886.99	7.29	8.87	-8.92	0.05	0.00	1.55	
900.71	1.70	51.69	900.55	7.54	9.19	-9.23	0.09	0.00	3.02	
914.29	1.69	52.16	914.12	7.78	9.51	-9.55	0.13	-0.07	3.46	
927.86	1.69	52.58	927.69	8.03	9.82	-9.87	0.09	0.00	3.10	
941.43	1.68	52.82	941.25	8.27	10.14	-10.19	0.09	-0.07	1.77	
955.00	1.66	52.74	954.82	8.51	10.46	-10.50	0.15	-0.15	-0.59	
968.43	1.64	51.96	968.24	8.75	10.76	-10.81	0.22	-0.15	-5.81	
981.86	1.62	50.77	981.67	8.98	11.06	-11.11	0.29	-0.15	-8.86	
990.20	1.60	49.85	990.00	9.13	11.24	-11.29	0.38	-0.22	-11.02	
Yates										
995.29	1.59	49.28	995.09	9.23	11.35	-11.40	0.38	-0.22	-11.22	
1,008.71	1.57	47.58	1,008.50	9.47	11.63	-11.68	0.38	-0.15	-12.67	
1,022.14	1.54	45.76	1,021.93	9.72	11.89	-11.94	0.43	-0.22	-13.55	
1,035.57	1.52	43.90	1,035.36	9.98	12.14	-12.20	0.40	-0.15	-13.85	
1,049.00	1.51	42.10	1,048.78	10.24	12.39	-12.44	0.36	-0.07	-13.40	
1,062.57	1.49	40.66	1,062.35	10.50	12.62	-12.68	0.31	-0.15	-10.61	
1,076.14	1.47	39.33	1,075.91	10.77	12.85	-12.91	0.29	-0.15	-9.80	
1,089.71	1.46	38.10	1,089.48	11.04	13.06	-13.12	0.24	-0.07	-9.06	
1,103.29	1.45	37.00	1,103.05	11.31	13.27	-13.34	0.22	-0.07	-8.10	
1,116.86	1.44	36.05	1,116.62	11.59	13.48	-13.54	0.19	-0.07	-7.00	
1,130.43	1.43	35.33	1,130.18	11.87	13.67	-13.74	0.15	-0.07	-5.31	
1,144.00	1.43	34.93	1,143.75	12.14	13.87	-13.94	0.07	0.00	-2.95	
1,157.43	1.42	35.07	1,157.18	12.42	14.06	-14.13	0.08	-0.07	1.04	
1,170.86	1.42	35.50	1,170.60	12.69	14.25	-14.32	0.08	0.00	3.20	
1,184.29	1.41	36.10	1,184.03	12.96	14.45	-14.52	0.13	-0.07	4.47	
1,197.71	1.41	36.76	1,197.44	13.22	14.64	-14.72	0.12	0.00	4.92	
1,211.14	1.41	37.38	1,210.87	13.49	14.84	-14.92	0.11	0.00	4.62	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,224.57	1.41	37.85	1,224.30	13.75	15.04	-15.12	0.09	0.00	3.50	
1,238.00	1.41	38.03	1,237.72	14.01	15.25	-15.33	0.03	0.00	1.34	
1,251.57	1.41	37.74	1,251.29	14.27	15.45	-15.53	0.05	0.00	-2.14	
1,265.14	1.41	37.15	1,264.85	14.54	15.66	-15.74	0.11	0.00	-4.35	
1,278.71	1.41	36.41	1,278.42	14.80	15.86	-15.94	0.13	0.00	-5.45	
1,292.29	1.42	35.59	1,291.99	15.08	16.05	-16.14	0.17	0.07	-6.04	
1,305.86	1.42	34.79	1,305.56	15.35	16.25	-16.33	0.15	0.00	-5.90	
1,319.43	1.42	34.07	1,319.13	15.63	16.44	-16.52	0.13	0.00	-5.31	
1,333.00	1.43	33.53	1,332.69	15.91	16.62	-16.71	0.12	0.07	-3.98	
1,346.43	1.43	33.30	1,346.12	16.19	16.81	-16.90	0.04	0.00	-1.71	
1,359.86	1.43	33.25	1,359.54	16.47	16.99	-17.08	0.01	0.00	-0.37	
1,373.29	1.43	33.30	1,372.97	16.75	17.18	-17.27	0.01	0.00	0.37	
1,386.71	1.44	33.39	1,386.39	17.03	17.36	-17.46	0.08	0.07	0.67	
1,400.14	1.45	33.45	1,399.81	17.31	17.55	-17.64	0.08	0.07	0.45	
1,413.57	1.46	33.42	1,413.24	17.60	17.74	-17.83	0.07	0.07	-0.22	
1,427.00	1.49	33.22	1,426.66	17.89	17.93	-18.02	0.23	0.22	-1.49	
1,440.57	1.53	32.83	1,440.23	18.18	18.12	-18.22	0.30	0.29	-2.87	
1,454.14	1.58	32.33	1,453.79	18.50	18.32	-18.42	0.38	0.37	-3.68	
1,467.71	1.63	31.81	1,467.36	18.82	18.52	-18.62	0.38	0.37	-3.83	
1,481.29	1.68	31.31	1,480.93	19.15	18.73	-18.83	0.38	0.37	-3.68	
1,494.86	1.73	30.90	1,494.50	19.50	18.93	-19.04	0.38	0.37	-3.02	
1,508.43	1.77	30.60	1,508.06	19.85	19.15	-19.26	0.30	0.29	-2.21	
1,522.00	1.79	30.47	1,521.62	20.22	19.36	-19.47	0.15	0.15	-0.96	
1,535.57	1.78	30.64	1,535.19	20.58	19.57	-19.69	0.08	-0.07	1.25	
1,549.14	1.76	31.01	1,548.75	20.94	19.79	-19.91	0.17	-0.15	2.73	
1,562.71	1.72	31.51	1,562.31	21.29	20.00	-20.12	0.32	-0.29	3.68	
1,576.29	1.69	32.09	1,575.89	21.64	20.22	-20.34	0.25	-0.22	4.27	
1,589.86	1.65	32.67	1,589.45	21.97	20.43	-20.55	0.32	-0.29	4.27	
1,603.43	1.62	33.17	1,603.02	22.29	20.64	-20.76	0.24	-0.22	3.68	
1,617.00	1.59	33.46	1,616.58	22.61	20.85	-20.97	0.23	-0.22	2.14	
1,630.43	1.59	33.33	1,630.01	22.92	21.05	-21.18	0.03	0.00	-0.97	
1,643.86	1.59	32.99	1,643.43	23.24	21.26	-21.39	0.07	0.00	-2.53	
1,657.29	1.61	32.52	1,656.86	23.55	21.46	-21.59	0.18	0.15	-3.50	
1,670.71	1.62	31.97	1,670.27	23.87	21.66	-21.79	0.14	0.07	-4.10	
1,684.14	1.64	31.37	1,683.69	24.20	21.86	-22.00	0.20	0.15	-4.47	
1,697.57	1.66	30.75	1,697.12	24.53	22.06	-22.20	0.20	0.15	-4.62	
1,711.00	1.67	30.11	1,710.54	24.86	22.26	-22.40	0.16	0.07	-4.77	
1,724.43	1.68	29.41	1,723.97	25.20	22.45	-22.59	0.17	0.07	-5.21	
1,737.86	1.67	28.71	1,737.39	25.55	22.64	-22.79	0.17	-0.07	-5.21	
1,751.29	1.67	28.02	1,750.82	25.89	22.83	-22.97	0.15	0.00	-5.14	
1,764.71	1.66	27.34	1,764.23	26.24	23.01	-23.16	0.17	-0.07	-5.07	
1,778.14	1.66	26.69	1,777.65	26.58	23.19	-23.34	0.14	0.00	-4.84	
1,791.57	1.64	26.06	1,791.08	26.93	23.36	-23.51	0.20	-0.15	-4.69	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,805.00	1.63	25.43	1,804.50	27.28	23.53	-23.68	0.15	-0.07	-4.69	
1,818.57	1.61	24.81	1,818.07	27.62	23.69	-23.84	0.20	-0.15	-4.57	
1,832.14	1.58	24.24	1,831.63	27.97	23.85	-24.00	0.25	-0.22	-4.20	
1,845.71	1.55	23.79	1,845.20	28.31	24.00	-24.15	0.24	-0.22	-3.32	
1,859.29	1.52	23.55	1,858.77	28.64	24.14	-24.30	0.23	-0.22	-1.77	
1,872.86	1.48	23.61	1,872.34	28.96	24.28	-24.45	0.29	-0.29	0.44	
1,886.43	1.44	24.17	1,885.90	29.28	24.42	-24.59	0.31	-0.29	4.13	
1,900.00	1.38	25.48	1,899.47	29.58	24.56	-24.73	0.50	-0.44	9.65	
1,913.43	1.31	27.96	1,912.90	29.86	24.71	-24.87	0.68	-0.52	18.47	
1,926.86	1.24	31.57	1,926.32	30.12	24.85	-25.02	0.79	-0.52	26.88	
1,940.29	1.16	36.28	1,939.75	30.36	25.01	-25.18	0.95	-0.60	35.07	
1,953.71	1.11	42.05	1,953.17	30.56	25.18	-25.35	0.93	-0.37	43.00	
1,967.14	1.07	48.67	1,966.59	30.74	25.36	-25.53	0.98	-0.30	49.29	
1,980.57	1.06	55.73	1,980.02	30.90	25.56	-25.73	0.98	-0.07	52.57	
1,994.00	1.09	62.58	1,993.45	31.02	25.77	-25.95	0.98	0.22	51.01	
2,007.57	1.08	69.86	2,007.02	31.13	26.01	-26.18	1.02	-0.07	53.65	
2,021.14	1.07	86.76	2,020.59	31.18	26.25	-26.43	2.33	-0.07	124.54	
2,034.71	1.13	101.89	2,034.15	31.16	26.51	-26.68	2.18	0.44	111.50	
2,048.29	1.27	114.57	2,047.73	31.07	26.78	-26.95	2.20	1.03	93.37	
2,061.86	1.45	124.43	2,061.30	30.91	27.06	-27.23	2.17	1.33	72.66	
2,075.43	1.66	131.91	2,074.86	30.68	27.35	-27.52	2.15	1.55	55.12	
2,089.00	1.90	137.61	2,088.42	30.38	27.64	-27.81	2.20	1.77	42.00	
2,102.43	1.99	142.50	2,101.85	30.03	27.94	-28.10	1.41	0.67	36.41	
2,115.86	2.11	147.44	2,115.27	29.64	28.21	-28.38	1.59	0.89	36.78	
2,129.29	2.26	152.12	2,128.69	29.20	28.47	-28.63	1.73	1.12	34.85	
2,142.71	2.43	156.32	2,142.10	28.70	28.71	-28.87	1.80	1.27	31.30	
2,156.14	2.63	159.94	2,155.51	28.15	28.93	-29.08	1.91	1.49	26.95	
2,169.57	2.86	162.91	2,168.93	27.54	29.13	-29.28	2.01	1.71	22.11	
2,183.00	3.13	165.20	2,182.34	26.87	29.32	-29.47	2.20	2.01	17.05	
2,196.57	3.38	168.84	2,195.89	26.12	29.49	-29.64	2.39	1.84	26.82	
2,210.14	3.68	171.98	2,209.43	25.29	29.63	-29.77	2.63	2.21	23.14	
2,223.71	4.00	174.62	2,222.97	24.39	29.74	-29.87	2.69	2.36	19.45	
2,237.29	4.33	176.77	2,236.52	23.41	29.81	-29.94	2.69	2.43	15.83	
2,250.86	4.69	178.47	2,250.04	22.34	29.85	-29.98	2.83	2.65	12.53	
2,264.43	5.05	179.73	2,263.57	21.19	29.87	-29.99	2.77	2.65	9.29	
2,278.00	5.43	180.51	2,277.08	19.95	29.87	-29.98	2.85	2.80	5.75	
2,291.43	5.81	181.02	2,290.44	18.64	29.85	-29.95	2.85	2.83	3.80	
2,304.86	6.19	181.22	2,303.80	17.23	29.82	-29.92	2.83	2.83	1.49	
2,318.29	6.58	181.27	2,317.15	15.74	29.79	-29.88	2.90	2.90	0.37	
2,331.71	6.96	181.24	2,330.47	14.16	29.76	-29.83	2.83	2.83	-0.22	
2,345.14	7.34	181.19	2,343.80	12.49	29.72	-29.79	2.83	2.83	-0.37	
2,358.57	7.71	181.16	2,357.11	10.73	29.68	-29.74	2.76	2.76	-0.22	
2,372.00	8.07	181.19	2,370.42	8.89	29.65	-29.70	2.68	2.68	0.22	
2,385.57	8.42	181.04	2,383.85	6.94	29.61	-29.65	2.58	2.58	-1.11	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
2,399.14	8.74	180.96	2,397.26	4.92	29.57	-29.60	2.36	2.36	-0.59	
2,412.71	9.05	180.91	2,410.67	2.82	29.54	-29.55	2.29	2.28	-0.37	
2,426.29	9.34	180.89	2,424.08	0.65	29.51	-29.51	2.14	2.14	-0.15	
2,439.86	9.60	180.88	2,437.46	-1.58	29.47	-29.46	1.92	1.92	-0.07	
2,453.43	9.82	180.86	2,450.84	-3.87	29.44	-29.41	1.62	1.62	-0.15	
2,467.00	9.99	180.81	2,464.20	-6.21	29.40	-29.37	1.25	1.25	-0.37	
2,480.43	10.07	180.71	2,477.43	-8.55	29.37	-29.32	0.61	0.60	-0.74	
2,493.86	10.11	180.59	2,490.65	-10.90	29.34	-29.28	0.34	0.30	-0.89	
2,507.29	10.11	180.47	2,503.87	-13.26	29.32	-29.25	0.16	0.00	-0.89	
2,520.71	10.10	180.36	2,517.09	-15.61	29.31	-29.22	0.16	-0.07	-0.82	
2,534.14	10.07	180.27	2,530.31	-17.96	29.29	-29.19	0.25	-0.22	-0.67	
2,540.94	10.05	180.24	2,537.00	-19.15	29.29	-29.18	0.24	-0.22	-0.45	
Capitan										
2,547.57	10.04	180.21	2,543.53	-20.31	29.28	-29.17	0.24	-0.22	-0.45	
2,561.00	10.02	180.22	2,556.76	-22.65	29.27	-29.15	0.15	-0.15	0.07	
2,574.57	10.02	180.30	2,570.12	-25.01	29.26	-29.12	0.10	0.00	0.59	
2,588.14	10.04	180.44	2,583.48	-27.37	29.25	-29.09	0.23	0.15	1.03	
2,601.71	10.06	180.62	2,596.84	-29.74	29.23	-29.06	0.27	0.15	1.33	
2,615.29	10.09	180.82	2,610.21	-32.11	29.20	-29.02	0.34	0.22	1.47	
2,628.86	10.12	181.03	2,623.57	-34.49	29.16	-28.96	0.35	0.22	1.55	
2,642.43	10.16	181.25	2,636.93	-36.88	29.11	-28.90	0.41	0.29	1.62	
2,656.00	10.19	181.47	2,650.29	-39.28	29.05	-28.83	0.36	0.22	1.62	
2,669.43	10.23	181.68	2,663.51	-41.66	28.99	-28.76	0.41	0.30	1.56	
2,682.86	10.27	181.89	2,676.72	-44.05	28.91	-28.67	0.41	0.30	1.56	
2,696.29	10.31	182.11	2,689.94	-46.45	28.83	-28.57	0.42	0.30	1.64	
2,709.71	10.34	182.32	2,703.14	-48.85	28.74	-28.46	0.36	0.22	1.56	
2,723.14	10.35	182.55	2,716.35	-51.26	28.63	-28.35	0.32	0.07	1.71	
2,736.57	10.36	182.78	2,729.56	-53.67	28.52	-28.22	0.32	0.07	1.71	
2,750.00	10.34	183.03	2,742.77	-56.08	28.40	-28.09	0.37	-0.15	1.86	
2,763.57	10.28	183.30	2,756.12	-58.50	28.27	-27.94	0.57	-0.44	1.99	
2,777.14	10.20	183.60	2,769.48	-60.91	28.12	-27.78	0.71	-0.59	2.21	
2,790.71	10.11	183.90	2,782.83	-63.30	27.96	-27.61	0.77	-0.66	2.21	
2,804.29	10.02	184.21	2,796.21	-65.67	27.80	-27.43	0.77	-0.66	2.28	
2,817.86	9.92	184.51	2,809.57	-68.01	27.62	-27.24	0.83	-0.74	2.21	
2,831.43	9.83	184.81	2,822.94	-70.33	27.43	-27.04	0.76	-0.66	2.21	
2,845.00	9.75	185.09	2,836.31	-72.63	27.23	-26.82	0.69	-0.59	2.06	
2,858.17	9.71	185.33	2,849.29	-74.84	27.03	-26.61	0.43	-0.30	1.82	
2,871.33	9.67	185.55	2,862.26	-77.05	26.82	-26.39	0.41	-0.30	1.67	
2,884.50	9.65	185.73	2,875.25	-79.25	26.60	-26.16	0.28	-0.15	1.37	
2,897.67	9.64	185.89	2,888.23	-81.44	26.38	-25.92	0.22	-0.08	1.21	
2,910.83	9.62	186.01	2,901.21	-83.63	26.15	-25.68	0.22	-0.15	0.91	
2,924.00	9.61	186.09	2,914.19	-85.82	25.92	-25.44	0.13	-0.08	0.61	
2,938.90	9.59	186.10	2,928.88	-88.29	25.65	-25.16	0.13	-0.13	0.07	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,953.80	9.57	186.07	2,943.57	-90.76	25.39	-24.88	0.14	-0.13	-0.20
2,968.70	9.54	185.98	2,958.27	-93.22	25.13	-24.61	0.22	-0.20	-0.60
2,983.60	9.52	185.87	2,972.96	-95.67	24.88	-24.34	0.18	-0.13	-0.74
2,998.50	9.49	185.73	2,987.66	-98.12	24.63	-24.08	0.25	-0.20	-0.94
3,013.40	9.46	185.56	3,002.35	-100.56	24.39	-23.82	0.28	-0.20	-1.14
3,028.30	9.44	185.38	3,017.05	-103.00	24.15	-23.58	0.24	-0.13	-1.21
3,043.20	9.40	185.20	3,031.75	-105.42	23.93	-23.34	0.33	-0.27	-1.21
3,058.10	9.37	185.02	3,046.45	-107.84	23.71	-23.11	0.28	-0.20	-1.21
3,063.72	9.35	184.96	3,052.00	-108.75	23.63	-23.02	0.37	-0.34	-1.00
DLWR Mnt. Group									
3,073.00	9.32	184.87	3,061.15	-110.25	23.50	-22.89	0.37	-0.34	-1.01
3,086.43	9.27	184.82	3,074.41	-112.42	23.32	-22.69	0.38	-0.37	-0.37
3,099.86	9.21	184.77	3,087.66	-114.56	23.14	-22.50	0.45	-0.45	-0.37
3,113.29	9.17	184.64	3,100.92	-116.70	22.96	-22.31	0.34	-0.30	-0.97
3,126.71	9.14	184.39	3,114.17	-118.83	22.80	-22.13	0.37	-0.22	-1.86
3,140.14	9.14	183.91	3,127.43	-120.96	22.64	-21.97	0.57	0.00	-3.57
3,153.57	9.19	183.09	3,140.69	-123.09	22.51	-21.82	1.04	0.37	-6.11
3,167.00	9.32	181.81	3,153.94	-125.25	22.42	-21.72	1.81	0.97	-9.53
3,180.57	9.57	179.74	3,167.33	-127.48	22.39	-21.68	3.11	1.84	-15.25
3,194.14	9.90	177.35	3,180.70	-129.77	22.45	-21.72	3.84	2.43	-17.61
3,207.71	10.29	174.89	3,194.06	-132.14	22.61	-21.87	4.28	2.87	-18.13
3,221.29	10.69	172.55	3,207.42	-134.60	22.88	-22.13	4.30	2.95	-17.23
3,234.86	11.09	170.40	3,220.74	-137.14	23.26	-22.50	4.20	2.95	-15.84
3,248.43	11.44	168.52	3,234.05	-139.74	23.75	-22.97	3.74	2.58	-13.85
3,262.00	11.69	166.97	3,247.35	-142.40	24.33	-23.53	2.94	1.84	-11.42
3,275.43	11.69	165.82	3,260.50	-145.04	24.97	-24.16	1.73	0.00	-8.56
3,288.86	11.60	165.03	3,273.65	-147.67	25.65	-24.82	1.36	-0.67	-5.88
3,302.29	11.44	164.47	3,286.81	-150.25	26.35	-25.51	1.45	-1.19	-4.17
3,315.71	11.22	164.06	3,299.97	-152.79	27.07	-26.21	1.75	-1.64	-3.06
3,329.14	10.98	163.73	3,313.15	-155.28	27.79	-26.92	1.85	-1.79	-2.46
3,342.57	10.71	163.41	3,326.34	-157.70	28.50	-27.62	2.06	-2.01	-2.38
3,356.00	10.42	163.03	3,339.54	-160.06	29.21	-28.32	2.22	-2.16	-2.83
3,369.57	10.11	162.42	3,352.89	-162.37	29.93	-29.02	2.42	-2.28	-4.50
3,383.14	9.80	161.70	3,366.26	-164.60	30.65	-29.73	2.46	-2.28	-5.31
3,396.71	9.50	160.93	3,379.64	-166.75	31.38	-30.45	2.41	-2.21	-5.67
3,410.29	9.23	160.16	3,393.04	-168.84	32.12	-31.17	2.19	-1.99	-5.67
3,423.86	9.00	159.48	3,406.43	-170.86	32.86	-31.90	1.87	-1.69	-5.01
3,437.43	8.84	158.97	3,419.84	-172.82	33.60	-32.64	1.32	-1.18	-3.76
3,451.00	8.78	158.78	3,433.25	-174.76	34.35	-33.38	0.49	-0.44	-1.40
3,464.43	8.90	159.08	3,446.52	-176.69	35.09	-34.11	0.96	0.89	2.23
3,477.86	9.12	159.63	3,459.78	-178.66	35.84	-34.84	1.76	1.64	4.10
3,491.29	9.39	160.30	3,473.04	-180.68	36.57	-35.57	2.16	2.01	4.99
3,504.71	9.69	160.98	3,486.27	-182.78	37.31	-36.29	2.39	2.24	5.07
3,518.14	9.97	161.60	3,499.51	-184.95	38.05	-37.01	2.23	2.08	4.62



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,531.57	10.21	162.12	3,512.73	-187.19	38.78	-37.73	1.91	1.79	3.87	
3,545.00	10.35	162.49	3,525.94	-189.47	39.51	-38.45	1.15	1.04	2.76	
3,558.43	10.33	162.60	3,539.16	-191.77	40.23	-39.16	0.21	-0.15	0.82	
3,571.86	10.20	162.50	3,552.37	-194.06	40.95	-39.86	0.98	-0.97	-0.74	
3,585.29	10.01	162.26	3,565.59	-196.30	41.66	-40.57	1.45	-1.41	-1.79	
3,598.71	9.78	161.92	3,578.81	-198.50	42.37	-41.26	1.77	-1.71	-2.53	
3,612.14	9.53	161.52	3,592.05	-200.64	43.08	-41.96	1.93	-1.86	-2.98	
3,625.57	9.27	161.08	3,605.30	-202.71	43.78	-42.65	2.01	-1.94	-3.28	
3,639.00	9.00	160.62	3,618.56	-204.73	44.48	-43.34	2.08	-2.01	-3.43	
3,652.43	8.75	160.25	3,631.83	-206.68	45.17	-44.02	1.91	-1.86	-2.76	
3,665.86	8.52	159.92	3,645.11	-208.58	45.86	-44.69	1.75	-1.71	-2.46	
3,679.29	8.31	159.66	3,658.39	-210.42	46.54	-45.36	1.59	-1.56	-1.94	
3,692.71	8.15	159.52	3,671.68	-212.22	47.21	-46.02	1.20	-1.19	-1.04	
3,706.14	8.05	159.57	3,684.97	-213.99	47.87	-46.67	0.75	-0.74	0.37	
3,719.57	8.05	159.92	3,698.27	-215.76	48.52	-47.32	0.36	0.00	2.61	
3,733.00	8.19	160.69	3,711.57	-217.54	49.16	-47.95	1.32	1.04	5.73	
3,746.57	8.56	162.09	3,724.99	-219.42	49.79	-48.56	3.11	2.73	10.32	
3,760.14	9.06	163.68	3,738.40	-221.40	50.40	-49.16	4.10	3.68	11.72	
3,773.71	9.65	165.24	3,751.79	-223.53	50.99	-49.74	4.73	4.35	11.50	
3,787.29	10.25	166.64	3,765.17	-225.80	51.56	-50.30	4.76	4.42	10.31	
3,800.86	10.83	167.81	3,778.51	-228.23	52.11	-50.83	4.56	4.27	8.62	
3,814.43	11.33	168.72	3,791.82	-230.78	52.64	-51.35	3.90	3.68	6.71	
3,828.00	11.66	169.31	3,805.12	-233.43	53.15	-51.85	2.58	2.43	4.35	
3,841.43	11.72	169.53	3,818.27	-236.11	53.65	-52.33	0.56	0.45	1.64	
3,854.86	11.61	169.38	3,831.43	-238.78	54.15	-52.82	0.85	-0.82	-1.12	
3,868.29	11.41	168.97	3,844.59	-241.41	54.65	-53.30	1.61	-1.49	-3.05	
3,871.77	11.35	168.82	3,848.00	-242.08	54.79	-53.43	2.05	-1.87	-4.25	
Lower Brushy Canyon										
3,881.71	11.16	168.39	3,857.75	-243.99	55.17	-53.81	2.05	-1.86	-4.35	
3,895.14	10.87	167.70	3,870.93	-246.50	55.70	-54.32	2.37	-2.16	-5.14	
3,908.57	10.59	166.99	3,884.12	-248.94	56.25	-54.86	2.31	-2.08	-5.29	
3,922.00	10.32	166.33	3,897.33	-251.31	56.81	-55.41	2.20	-2.01	-4.91	
3,935.57	10.11	165.98	3,910.69	-253.64	57.39	-55.97	1.61	-1.55	-2.58	
3,949.14	9.94	165.75	3,924.05	-255.93	57.96	-56.53	1.29	-1.25	-1.69	
3,962.71	9.79	165.60	3,937.42	-258.19	58.54	-57.10	1.12	-1.11	-1.11	
3,976.29	9.68	165.53	3,950.80	-260.41	59.11	-57.66	0.81	-0.81	-0.52	
3,989.86	9.59	165.52	3,964.18	-262.61	59.68	-58.21	0.66	-0.66	-0.07	
4,003.43	9.53	165.60	3,977.56	-264.79	60.24	-58.76	0.45	-0.44	0.59	
4,017.00	9.51	165.78	3,990.95	-266.97	60.80	-59.30	0.26	-0.15	1.33	
4,030.43	9.55	166.13	4,004.19	-269.12	61.33	-59.83	0.52	0.30	2.61	
4,043.86	9.62	166.56	4,017.43	-271.30	61.86	-60.35	0.75	0.52	3.20	
4,057.29	9.73	167.04	4,030.67	-273.49	62.38	-60.85	1.02	0.82	3.57	
4,070.71	9.89	167.53	4,043.90	-275.72	62.88	-61.34	1.34	1.19	3.65	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,084.14	10.08	168.02	4,057.12	-278.00	63.37	-61.82	1.55	1.41	3.65
4,097.57	10.34	168.46	4,070.34	-280.33	63.86	-62.29	2.02	1.94	3.28
4,111.00	10.67	168.84	4,083.54	-282.73	64.34	-62.76	2.51	2.46	2.83
4,124.57	11.13	169.28	4,096.87	-285.25	64.83	-63.23	3.44	3.39	3.24
4,138.14	11.66	169.65	4,110.17	-287.89	65.32	-63.71	3.94	3.91	2.73
4,151.71	12.21	169.98	4,123.45	-290.65	65.81	-64.19	4.08	4.05	2.43
4,165.29	12.75	170.26	4,136.71	-293.54	66.32	-64.68	4.00	3.98	2.06
4,178.86	13.23	170.50	4,149.93	-296.55	66.83	-65.17	3.56	3.54	1.77
4,192.43	13.61	170.70	4,163.13	-299.65	67.34	-65.67	2.82	2.80	1.47
4,206.00	13.82	170.85	4,176.31	-302.83	67.86	-66.16	1.57	1.55	1.11
4,219.43	13.74	170.95	4,189.36	-305.99	68.36	-66.65	0.62	-0.60	0.74
4,232.86	13.50	171.00	4,202.41	-309.11	68.86	-67.13	1.79	-1.79	0.37
4,246.29	13.16	171.00	4,215.48	-312.17	69.34	-67.60	2.53	-2.53	0.00
4,259.71	12.75	170.94	4,228.56	-315.14	69.82	-68.05	3.06	-3.06	-0.45
4,273.14	12.32	170.80	4,241.66	-318.02	70.28	-68.50	3.21	-3.20	-1.04
4,286.57	11.91	170.51	4,254.80	-320.80	70.74	-68.94	3.09	-3.05	-2.16
4,300.00	11.54	170.03	4,267.95	-323.49	71.20	-69.39	2.85	-2.76	-3.57
4,313.43	11.28	169.26	4,281.11	-326.10	71.67	-69.85	2.24	-1.94	-5.73
4,326.86	11.08	168.28	4,294.29	-328.66	72.18	-70.34	2.05	-1.49	-7.30
4,340.29	10.94	167.18	4,307.47	-331.16	72.73	-70.88	1.88	-1.04	-8.19
4,351.02	10.88	166.27	4,318.00	-333.14	73.19	-71.33	1.71	-0.60	-8.48
Bone Spring Lime									
4,353.71	10.86	166.04	4,320.65	-333.63	73.31	-71.45	1.71	-0.58	-8.54
4,367.14	10.82	164.93	4,333.84	-336.08	73.95	-72.07	1.58	-0.30	-8.27
4,380.57	10.85	163.95	4,347.03	-338.51	74.62	-72.73	1.39	0.22	-7.30
4,394.00	10.95	163.21	4,360.21	-340.95	75.34	-73.44	1.28	0.74	-5.51
4,407.57	11.15	162.72	4,373.53	-343.43	76.10	-74.18	1.63	1.47	-3.61
4,421.14	11.42	162.44	4,386.84	-345.97	76.90	-74.97	2.03	1.99	-2.06
4,434.71	11.72	162.28	4,400.13	-348.56	77.72	-75.78	2.22	2.21	-1.18
4,448.29	12.03	162.21	4,413.42	-351.22	78.58	-76.61	2.29	2.28	-0.52
4,461.86	12.32	162.19	4,426.69	-353.95	79.45	-77.47	2.14	2.14	-0.15
4,475.43	12.56	162.20	4,439.94	-356.73	80.34	-78.35	1.77	1.77	0.07
4,489.00	12.71	162.22	4,453.18	-359.56	81.25	-79.24	1.11	1.11	0.15
4,502.43	12.71	162.25	4,466.28	-362.37	82.15	-80.13	0.05	0.00	0.22
4,515.86	12.63	162.27	4,479.39	-365.18	83.05	-81.01	0.60	-0.60	0.15
4,529.29	12.48	162.29	4,492.49	-367.96	83.94	-81.88	1.12	-1.12	0.15
4,542.71	12.29	162.30	4,505.60	-370.70	84.81	-82.74	1.42	-1.42	0.07
4,556.14	12.08	162.29	4,518.73	-373.40	85.68	-83.59	1.56	-1.56	-0.07
4,569.57	11.85	162.25	4,531.87	-376.05	86.52	-84.42	1.71	-1.71	-0.30
4,583.00	11.62	162.17	4,545.02	-378.65	87.36	-85.24	1.72	-1.71	-0.60
4,596.57	11.40	161.99	4,558.31	-381.23	88.19	-86.06	1.64	-1.62	-1.33
4,610.14	11.18	161.75	4,571.62	-383.75	89.02	-86.87	1.66	-1.62	-1.77
4,623.71	10.97	161.45	4,584.94	-386.23	89.84	-87.68	1.60	-1.55	-2.21
4,637.29	10.75	161.11	4,598.28	-388.65	90.66	-88.49	1.69	-1.62	-2.50



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,650.86	10.53	160.72	4,611.61	-391.02	91.48	-89.30	1.71	-1.62	-2.87	
4,664.43	10.29	160.27	4,624.96	-393.33	92.30	-90.10	1.87	-1.77	-3.32	
4,678.00	10.04	159.76	4,638.32	-395.58	93.12	-90.91	1.96	-1.84	-3.76	
4,691.43	9.77	159.20	4,651.55	-397.74	93.93	-91.70	2.13	-2.01	-4.17	
4,704.86	9.49	158.60	4,664.79	-399.84	94.74	-92.50	2.21	-2.08	-4.47	
4,718.29	9.23	157.98	4,678.04	-401.87	95.54	-93.30	2.08	-1.94	-4.62	
4,731.71	9.01	157.40	4,691.29	-403.84	96.35	-94.09	1.78	-1.64	-4.32	
4,745.14	8.88	156.94	4,704.55	-405.76	97.16	-94.89	1.10	-0.97	-3.43	
4,758.57	8.86	156.71	4,717.82	-407.66	97.98	-95.70	0.30	-0.15	-1.71	
4,772.00	9.02	156.83	4,731.09	-409.58	98.80	-96.51	1.20	1.19	0.89	
4,785.57	9.48	157.38	4,744.48	-411.59	99.65	-97.35	3.45	3.39	4.05	
4,799.14	10.12	158.12	4,757.86	-413.73	100.52	-98.21	4.81	4.72	5.45	
4,812.71	10.85	158.88	4,771.20	-416.03	101.43	-99.10	5.48	5.38	5.60	
4,826.29	11.62	159.56	4,784.52	-418.50	102.36	-100.03	5.75	5.67	5.01	
4,839.86	12.37	160.14	4,797.79	-421.15	103.34	-100.98	5.60	5.53	4.27	
4,853.43	13.05	160.58	4,811.03	-423.96	104.34	-101.97	5.06	5.01	3.24	
4,867.00	13.57	160.85	4,824.24	-426.91	105.37	-102.98	3.86	3.83	1.99	
4,880.43	13.82	161.04	4,837.28	-429.92	106.41	-104.01	1.89	1.86	1.41	
4,893.86	13.90	161.04	4,850.32	-432.96	107.45	-105.03	0.60	0.60	0.00	
4,907.29	13.89	160.92	4,863.36	-436.01	108.51	-106.07	0.23	-0.07	-0.89	
4,920.71	13.80	160.71	4,876.39	-439.04	109.56	-107.11	0.77	-0.67	-1.56	
4,934.14	13.67	160.45	4,889.44	-442.05	110.62	-108.15	1.07	-0.97	-1.94	
4,947.57	13.52	160.16	4,902.49	-445.02	111.68	-109.20	1.23	-1.12	-2.16	
4,961.00	13.37	159.84	4,915.55	-447.95	112.75	-110.25	1.25	-1.12	-2.38	
4,974.43	13.24	159.55	4,928.62	-450.85	113.83	-111.31	1.09	-0.97	-2.16	
4,987.86	13.12	159.25	4,941.70	-453.72	114.90	-112.37	1.03	-0.89	-2.23	
5,001.29	13.01	158.94	4,954.78	-456.56	115.99	-113.43	0.97	-0.82	-2.31	
5,014.71	12.90	158.62	4,967.86	-459.36	117.07	-114.51	0.98	-0.82	-2.38	
5,028.14	12.79	158.30	4,980.95	-462.14	118.17	-115.59	0.98	-0.82	-2.38	
5,041.57	12.68	157.97	4,994.05	-464.88	119.27	-116.67	0.98	-0.82	-2.46	
5,055.00	12.56	157.64	5,007.16	-467.60	120.38	-117.77	1.04	-0.89	-2.46	
5,068.57	12.43	157.31	5,020.41	-470.31	121.51	-118.88	1.09	-0.96	-2.43	
5,082.14	12.30	156.98	5,033.66	-472.99	122.63	-119.99	1.09	-0.96	-2.43	
5,095.71	12.16	156.65	5,046.92	-475.63	123.77	-121.11	1.15	-1.03	-2.43	
5,109.29	12.01	156.32	5,060.20	-478.24	124.90	-122.23	1.22	-1.10	-2.43	
5,122.86	11.86	156.00	5,073.48	-480.81	126.04	-123.35	1.21	-1.11	-2.36	
5,136.43	11.71	155.70	5,086.76	-483.34	127.17	-124.47	1.19	-1.11	-2.21	
5,150.00	11.55	155.43	5,100.05	-485.83	128.30	-125.59	1.25	-1.18	-1.99	
5,163.43	11.37	155.23	5,113.22	-488.25	129.41	-126.69	1.37	-1.34	-1.49	
5,176.86	11.19	155.06	5,126.39	-490.64	130.52	-127.78	1.36	-1.34	-1.27	
5,190.29	11.01	154.90	5,139.57	-492.98	131.61	-128.86	1.36	-1.34	-1.19	
5,203.71	10.81	154.73	5,152.74	-495.28	132.69	-129.92	1.51	-1.49	-1.27	
5,217.14	10.61	154.54	5,165.94	-497.53	133.76	-130.98	1.51	-1.49	-1.41	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,230.57	10.39	154.30	5,179.14	-499.74	134.82	-132.03	1.67	-1.64	-1.79	
5,244.00	10.15	153.98	5,192.36	-501.89	135.86	-133.06	1.84	-1.79	-2.38	
5,257.57	9.89	153.52	5,205.72	-504.01	136.91	-134.09	2.00	-1.92	-3.39	
5,271.14	9.61	152.97	5,219.10	-506.06	137.94	-135.11	2.17	-2.06	-4.05	
5,284.71	9.33	152.37	5,232.48	-508.05	138.97	-136.13	2.19	-2.06	-4.42	
5,298.29	9.07	151.78	5,245.89	-509.97	139.98	-137.13	2.04	-1.91	-4.34	
5,311.86	8.82	151.27	5,259.29	-511.82	140.99	-138.13	1.93	-1.84	-3.76	
5,325.43	8.60	150.91	5,272.71	-513.62	141.98	-139.11	1.67	-1.62	-2.65	
5,339.00	8.44	150.85	5,286.13	-515.38	142.96	-140.08	1.18	-1.18	-0.44	
5,352.57	8.37	151.31	5,299.55	-517.11	143.92	-141.03	0.72	-0.52	3.39	
5,366.14	8.35	152.07	5,312.98	-518.85	144.86	-141.96	0.83	-0.15	5.60	
5,379.71	8.39	153.00	5,326.40	-520.60	145.77	-142.86	1.04	0.29	6.85	
5,393.29	8.46	154.02	5,339.83	-522.38	146.65	-143.73	1.22	0.52	7.51	
5,406.86	8.57	155.06	5,353.25	-524.20	147.52	-144.59	1.39	0.81	7.66	
5,420.43	8.72	156.07	5,366.67	-526.05	148.36	-145.42	1.57	1.11	7.44	
5,434.00	8.92	156.99	5,380.08	-527.96	149.19	-146.24	1.80	1.47	6.78	
5,447.43	9.15	157.99	5,393.34	-529.91	150.00	-147.03	2.07	1.71	7.45	
5,460.86	9.42	158.92	5,406.60	-531.93	150.79	-147.82	2.30	2.01	6.92	
5,474.29	9.70	159.76	5,419.84	-534.01	151.58	-148.59	2.33	2.08	6.25	
5,487.71	9.97	160.51	5,433.06	-536.17	152.36	-149.36	2.23	2.01	5.59	
5,501.14	10.21	161.18	5,446.29	-538.39	153.13	-150.12	1.99	1.79	4.99	
5,514.57	10.40	161.75	5,459.50	-540.67	153.89	-150.87	1.61	1.41	4.24	
5,528.00	10.51	162.21	5,472.71	-542.99	154.65	-151.61	1.03	0.82	3.43	
5,541.57	10.47	162.52	5,486.05	-545.34	155.40	-152.35	0.51	-0.29	2.28	
5,555.14	10.35	162.73	5,499.40	-547.68	156.13	-153.07	0.93	-0.88	1.55	
5,568.71	10.16	162.88	5,512.75	-549.99	156.84	-153.77	1.41	-1.40	1.11	
5,582.29	9.93	163.01	5,526.12	-552.25	157.54	-154.45	1.70	-1.69	0.96	
5,595.86	9.67	163.16	5,539.49	-554.46	158.21	-155.11	1.93	-1.92	1.11	
5,609.43	9.41	163.38	5,552.88	-556.62	158.86	-155.74	1.93	-1.92	1.62	
5,623.00	9.13	163.71	5,566.27	-558.71	159.48	-156.35	2.10	-2.06	2.43	
5,636.43	8.86	164.27	5,579.53	-560.73	160.05	-156.92	2.11	-2.01	4.17	
5,649.86	8.60	164.98	5,592.81	-562.70	160.60	-157.45	2.10	-1.94	5.29	
5,663.29	8.35	165.79	5,606.09	-564.61	161.09	-157.94	2.06	-1.86	6.03	
5,676.71	8.12	166.66	5,619.37	-566.48	161.55	-158.39	1.95	-1.71	6.48	
5,690.14	7.91	167.57	5,632.67	-568.30	161.97	-158.79	1.83	-1.56	6.78	
5,703.57	7.75	168.45	5,645.98	-570.09	162.35	-159.16	1.49	-1.19	6.55	
5,717.00	8.12	169.22	5,659.28	-571.91	162.71	-159.51	2.87	2.76	5.73	
5,730.57	8.59	169.81	5,672.70	-573.85	163.07	-159.86	3.52	3.46	4.35	
5,744.14	8.69	170.34	5,686.12	-575.86	163.42	-160.20	0.94	0.74	3.91	
5,757.71	8.77	170.80	5,699.53	-577.89	163.76	-160.53	0.78	0.59	3.39	
5,771.29	8.85	171.22	5,712.95	-579.95	164.08	-160.84	0.76	0.59	3.09	
5,784.86	8.92	171.61	5,726.36	-582.02	164.39	-161.14	0.68	0.52	2.87	
5,798.43	8.93	171.98	5,739.76	-584.10	164.69	-161.43	0.43	0.07	2.73	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,812.00	9.27	171.84	5,753.16	-586.23	165.00	-161.72	2.51	2.51	-1.03	
5,825.43	10.06	171.38	5,766.40	-588.46	165.33	-162.04	5.91	5.88	-3.43	
5,838.86	9.81	171.65	5,779.63	-590.75	165.67	-162.37	1.89	-1.86	2.01	
5,852.29	9.38	171.97	5,792.87	-592.96	165.99	-162.67	3.23	-3.20	2.38	
5,865.71	8.91	172.31	5,806.12	-595.08	166.28	-162.95	3.53	-3.50	2.53	
5,879.14	8.44	172.69	5,819.40	-597.09	166.54	-163.21	3.53	-3.50	2.83	
5,892.57	8.01	173.11	5,832.69	-598.99	166.78	-163.43	3.23	-3.20	3.13	
5,906.00	7.66	173.58	5,846.00	-600.81	166.99	-163.64	2.65	-2.61	3.50	
5,919.57	7.46	174.05	5,859.45	-602.59	167.19	-163.82	1.54	-1.47	3.46	
5,933.14	7.35	174.54	5,872.91	-604.33	167.36	-163.98	0.93	-0.81	3.61	
5,946.71	7.31	175.04	5,886.36	-606.05	167.52	-164.13	0.55	-0.29	3.68	
5,960.29	7.29	175.53	5,899.83	-607.77	167.66	-164.26	0.48	-0.15	3.61	
5,973.86	7.29	176.02	5,913.29	-609.49	167.79	-164.38	0.46	0.00	3.61	
5,987.43	7.29	176.52	5,926.75	-611.21	167.90	-164.48	0.47	0.00	3.68	
6,001.00	7.89	175.60	5,940.21	-612.99	168.02	-164.60	4.51	4.42	-6.78	
6,014.43	8.86	174.22	5,953.49	-614.94	168.20	-164.76	7.38	7.22	-10.28	
6,027.86	9.83	173.04	5,966.74	-617.11	168.44	-164.99	7.36	7.22	-8.79	
6,041.29	10.78	172.16	5,979.96	-619.49	168.75	-165.29	7.17	7.07	-6.55	
6,054.71	10.82	172.91	5,993.14	-621.98	169.08	-165.60	1.09	0.30	5.59	
6,068.14	11.21	173.68	6,006.32	-624.53	169.38	-165.89	3.10	2.90	5.73	
6,081.57	12.10	173.89	6,019.48	-627.23	169.67	-166.16	6.63	6.63	1.56	
6,095.00	11.98	174.36	6,032.61	-630.02	169.96	-166.43	1.15	-0.89	3.50	
6,108.43	11.62	174.44	6,045.76	-632.75	170.22	-166.69	2.68	-2.68	0.60	
6,121.86	11.16	174.28	6,058.92	-635.39	170.48	-166.93	3.43	-3.43	-1.19	
6,135.29	10.67	173.93	6,072.11	-637.92	170.75	-167.18	3.68	-3.65	-2.61	
6,148.71	10.16	173.44	6,085.31	-640.33	171.01	-167.43	3.86	-3.80	-3.65	
6,162.14	9.69	172.84	6,098.54	-642.63	171.29	-167.70	3.58	-3.50	-4.47	
6,175.57	9.29	172.19	6,111.78	-644.82	171.58	-167.97	3.08	-2.98	-4.84	
6,189.00	9.01	171.57	6,125.04	-646.94	171.88	-168.26	2.21	-2.08	-4.62	
6,202.57	8.94	171.19	6,138.45	-649.03	172.20	-168.57	0.68	-0.52	-2.80	
6,216.14	8.98	170.85	6,151.85	-651.12	172.53	-168.89	0.49	0.29	-2.51	
6,229.71	9.11	170.56	6,165.25	-653.22	172.87	-169.22	1.02	0.96	-2.14	
6,243.29	9.26	170.32	6,178.66	-655.36	173.23	-169.57	1.14	1.10	-1.77	
6,256.86	9.41	170.14	6,192.05	-657.53	173.60	-169.93	1.13	1.11	-1.33	
6,270.43	9.52	170.04	6,205.43	-659.73	173.99	-170.30	0.82	0.81	-0.74	
6,284.00	9.97	169.06	6,218.81	-661.99	174.40	-170.70	3.53	3.32	-7.22	
6,297.43	10.63	167.83	6,232.02	-664.34	174.89	-171.17	5.18	4.91	-9.16	
6,310.86	11.34	166.99	6,245.20	-666.84	175.44	-171.72	5.42	5.29	-6.25	
6,324.29	11.79	166.77	6,258.36	-669.46	176.06	-172.31	3.37	3.35	-1.64	
6,337.71	11.49	167.36	6,271.51	-672.10	176.66	-172.91	2.40	-2.24	4.40	
6,351.14	11.17	168.01	6,284.67	-674.68	177.23	-173.45	2.57	-2.38	4.84	
6,364.57	10.85	168.61	6,297.86	-677.19	177.75	-173.96	2.53	-2.38	4.47	
6,378.00	10.57	168.99	6,311.05	-679.64	178.23	-174.43	2.15	-2.08	2.83	
6,391.57	10.38	168.83	6,324.40	-682.06	178.70	-174.89	1.42	-1.40	-1.18	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,405.14	10.25	168.38	6,337.75	-684.44	179.18	-175.36	1.13	-0.96	-3.32
6,418.71	10.15	167.76	6,351.10	-686.79	179.68	-175.84	1.09	-0.74	-4.57
6,432.29	10.08	167.06	6,364.47	-689.12	180.20	-176.35	1.04	-0.52	-5.15
6,445.86	10.02	166.36	6,377.83	-691.42	180.75	-176.88	1.00	-0.44	-5.16
6,459.43	9.95	165.75	6,391.20	-693.71	181.31	-177.44	0.93	-0.52	-4.50
6,473.00	10.31	164.48	6,404.56	-696.01	181.93	-178.04	3.12	2.65	-9.36
6,486.43	10.94	163.16	6,417.76	-698.39	182.62	-178.71	5.03	4.69	-9.83
6,499.86	11.61	162.22	6,430.93	-700.90	183.40	-179.48	5.17	4.99	-7.00
6,500.96	11.60	162.23	6,432.00	-701.11	183.47	-179.55	0.79	-0.75	1.33
1st Bone Spring SD									
6,513.29	11.51	162.40	6,444.08	-703.46	184.22	-180.28	0.79	-0.74	1.34
6,526.71	11.40	162.65	6,457.24	-706.00	185.02	-181.07	0.90	-0.82	1.86
6,540.14	11.28	162.94	6,470.40	-708.52	185.80	-181.84	0.99	-0.89	2.16
6,553.57	11.14	163.22	6,483.58	-711.02	186.56	-182.58	1.12	-1.04	2.08
6,567.00	10.96	163.44	6,496.76	-713.49	187.30	-183.31	1.38	-1.34	1.64
6,580.57	10.72	163.47	6,510.09	-715.93	188.02	-184.02	1.77	-1.77	0.22
6,594.14	10.44	163.40	6,523.43	-718.32	188.73	-184.72	2.07	-2.06	-0.52
6,607.71	10.15	163.26	6,536.78	-720.65	189.43	-185.40	2.15	-2.14	-1.03
6,621.29	9.86	163.08	6,550.15	-722.90	190.11	-186.07	2.15	-2.14	-1.33
6,634.86	9.60	162.89	6,563.53	-725.10	190.78	-186.73	1.93	-1.92	-1.40
6,648.43	9.37	162.71	6,576.91	-727.23	191.44	-187.38	1.71	-1.69	-1.33
6,662.00	9.21	162.59	6,590.30	-729.32	192.10	-188.02	1.19	-1.18	-0.88
6,675.43	9.17	162.57	6,603.56	-731.37	192.74	-188.65	0.30	-0.30	-0.15
6,688.86	9.20	162.61	6,616.82	-733.42	193.38	-189.28	0.23	0.22	0.30
6,702.29	9.25	162.71	6,630.07	-735.47	194.02	-189.91	0.39	0.37	0.74
6,715.71	9.31	162.84	6,643.32	-737.54	194.66	-190.54	0.47	0.45	0.97
6,729.14	9.34	163.04	6,656.57	-739.62	195.30	-191.17	0.33	0.22	1.49
6,732.62	9.33	163.11	6,660.00	-740.16	195.47	-191.33	0.35	-0.15	1.94
2nd Bone Spring LM									
6,742.57	9.32	163.30	6,669.82	-741.70	195.93	-191.79	0.35	-0.15	1.94
6,756.00	9.76	163.21	6,683.07	-743.83	196.57	-192.42	3.28	3.28	-0.67
6,769.57	10.30	163.52	6,696.43	-746.10	197.25	-193.08	4.00	3.98	2.28
6,783.14	10.85	164.14	6,709.77	-748.49	197.94	-193.76	4.14	4.05	4.57
6,796.71	10.60	164.69	6,723.10	-750.92	198.62	-194.42	1.99	-1.84	4.05
6,810.29	10.12	165.34	6,736.46	-753.28	199.25	-195.04	3.64	-3.53	4.79
6,823.86	9.60	166.21	6,749.83	-755.53	199.83	-195.60	3.99	-3.83	6.41
6,837.43	9.06	167.42	6,763.22	-757.68	200.33	-196.09	4.23	-3.98	8.92
6,851.00	8.51	169.15	6,776.63	-759.71	200.75	-196.50	4.50	-4.05	12.75
6,864.75	7.94	171.39	6,790.24	-761.64	201.08	-196.83	4.75	-4.15	16.29
6,878.50	7.39	174.30	6,803.87	-763.46	201.31	-197.05	4.89	-4.00	21.16
6,892.25	6.87	177.82	6,817.51	-765.16	201.43	-197.16	4.94	-3.78	25.60
6,906.00	6.41	181.85	6,831.17	-766.75	201.44	-197.15	4.76	-3.35	29.31
6,919.75	6.00	186.20	6,844.84	-768.23	201.34	-197.04	4.53	-2.98	31.64



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,931.00	5.77	190.24	6,856.03	-769.38	201.17	-196.87	4.22	-2.07	35.91	
KOP: 6931.00' MD, -196.87' VS, 6856.03' TVD										
6,933.50	5.72	191.18	6,858.52	-769.62	201.13	-196.82	4.22	-1.90	37.63	
6,947.25	6.44	201.56	6,872.19	-771.01	200.71	-196.40	9.54	5.24	75.49	
6,961.00	7.61	210.50	6,885.84	-772.51	199.96	-195.65	11.62	8.51	65.02	
6,974.43	8.96	217.72	6,899.13	-774.11	198.87	-194.55	12.67	10.05	53.76	
6,987.86	10.48	222.73	6,912.36	-775.83	197.40	-193.07	12.94	11.32	37.30	
7,001.29	12.06	226.69	6,925.53	-777.69	195.55	-191.21	13.09	11.76	29.49	
7,014.71	13.50	230.66	6,938.62	-779.65	193.32	-188.96	12.56	10.73	29.58	
7,028.14	14.71	235.14	6,951.65	-781.61	190.71	-186.34	12.13	9.01	33.36	
7,041.57	16.05	239.27	6,964.60	-783.54	187.72	-183.34	12.88	9.98	30.75	
7,055.00	17.53	242.22	6,977.45	-785.43	184.33	-179.94	12.71	11.02	21.97	
7,068.57	18.94	245.39	6,990.34	-787.30	180.52	-176.12	12.70	10.39	23.36	
7,082.14	20.47	247.25	7,003.12	-789.13	176.33	-171.92	12.18	11.27	13.71	
7,095.71	22.00	248.48	7,015.77	-790.98	171.78	-167.36	11.74	11.27	9.06	
7,109.29	23.56	248.93	7,028.29	-792.89	166.88	-162.45	11.56	11.49	3.31	
7,122.86	25.08	247.15	7,040.65	-794.98	161.69	-157.25	12.43	11.20	-13.12	
7,136.43	26.62	245.73	7,052.86	-797.35	156.27	-151.82	12.23	11.35	-10.46	
7,150.00	28.26	245.49	7,064.91	-799.93	150.58	-146.11	12.11	12.09	-1.77	
7,163.43	29.92	245.69	7,076.64	-802.63	144.63	-140.15	12.38	12.36	1.49	
7,176.86	31.56	245.17	7,088.18	-805.49	138.39	-133.89	12.37	12.21	-3.87	
7,190.29	33.16	245.63	7,099.53	-808.48	131.85	-127.34	12.05	11.91	3.43	
7,203.71	34.45	247.93	7,110.68	-811.42	124.99	-120.46	13.54	9.61	17.14	
7,217.14	35.41	250.65	7,121.69	-814.14	117.80	-113.25	13.62	7.15	20.25	
7,226.14	36.01	252.48	7,129.00	-815.80	112.82	-108.26	13.59	6.63	20.32	
2nd Bone Spring SD										
7,230.57	36.31	253.36	7,132.58	-816.56	110.32	-105.76	13.59	6.85	19.88	
7,244.00	37.69	255.24	7,143.30	-818.75	102.54	-97.96	13.29	10.28	14.00	
7,257.57	38.46	256.12	7,153.98	-820.82	94.43	-89.84	6.94	5.67	6.48	
7,271.14	38.17	256.35	7,164.63	-822.82	86.26	-81.66	2.38	-2.14	1.69	
7,284.71	37.88	256.58	7,175.32	-824.78	78.13	-73.52	2.38	-2.14	1.69	
7,298.29	38.02	257.16	7,186.03	-826.67	70.00	-65.38	2.82	1.03	4.27	
7,311.86	38.92	258.31	7,196.65	-828.47	61.75	-57.12	8.47	6.63	8.47	
7,325.43	40.11	259.21	7,207.12	-830.15	53.28	-48.64	9.73	8.77	6.63	
7,339.00	41.64	259.51	7,217.38	-831.79	44.55	-39.91	11.37	11.27	2.21	
7,352.57	42.58	259.35	7,227.45	-833.46	35.61	-30.95	6.97	6.93	-1.18	
7,366.14	42.64	259.38	7,237.44	-835.15	26.58	-21.91	0.47	0.44	0.22	
7,373.58	42.69	259.39	7,242.91	-836.08	21.62	-16.95	0.67	0.66	0.15	
00-FTP(D-123H)										
7,379.71	42.73	259.40	7,247.41	-836.85	17.54	-12.86	0.67	0.66	0.15	
7,393.29	42.80	259.46	7,257.38	-838.54	8.47	-3.79	0.60	0.52	0.44	
7,406.86	43.96	259.91	7,267.25	-840.21	-0.70	5.39	8.85	8.55	3.32	
7,420.43	45.49	259.92	7,276.89	-841.88	-10.10	14.80	11.27	11.27	0.07	
7,434.00	47.01	259.23	7,286.27	-843.65	-19.74	24.45	11.79	11.20	-5.08	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,447.43	48.52	258.74	7,295.30	-845.55	-29.50	34.22	11.56	11.24	-3.65
7,460.86	49.25	259.01	7,304.13	-847.50	-39.43	44.16	5.64	5.44	2.01
7,474.29	49.05	259.47	7,312.91	-849.40	-49.41	54.15	2.99	-1.49	3.43
7,487.71	49.11	260.33	7,321.70	-851.18	-59.39	64.14	4.86	0.45	6.41
7,501.14	49.76	261.47	7,330.44	-852.79	-69.46	74.23	8.06	4.84	8.49
7,514.57	50.73	262.72	7,339.03	-854.21	-79.69	84.46	10.17	7.22	9.31
7,528.00	52.00	263.51	7,347.41	-855.47	-90.10	94.88	10.51	9.46	5.88
7,538.18	53.08	263.74	7,353.60	-856.37	-98.13	102.92	10.72	10.57	2.24
01-OVS(D-123H)									
7,541.43	53.42	263.81	7,355.55	-856.65	-100.72	105.51	10.72	10.58	2.20
7,554.86	54.78	264.13	7,363.42	-857.79	-111.54	116.33	10.31	10.13	2.38
7,568.29	55.09	264.28	7,371.14	-858.90	-122.48	127.27	2.48	2.31	1.12
7,581.71	54.70	264.37	7,378.85	-859.99	-133.40	138.20	2.96	-2.91	0.67
7,595.14	55.64	264.63	7,386.52	-861.04	-144.38	149.18	7.18	7.00	1.94
7,608.57	57.06	264.69	7,393.97	-862.08	-155.51	160.32	10.58	10.57	0.45
7,622.00	58.63	264.53	7,401.11	-863.15	-166.83	171.64	11.73	11.69	-1.19
7,635.57	60.33	264.48	7,408.00	-864.27	-178.46	183.29	12.53	12.53	-0.37
7,649.14	62.07	264.66	7,414.54	-865.40	-190.30	195.13	12.87	12.82	1.33
7,662.71	63.73	265.44	7,420.72	-866.44	-202.33	207.17	13.26	12.23	5.75
7,676.29	65.44	265.95	7,426.55	-867.36	-214.57	219.41	13.04	12.59	3.76
7,689.86	66.90	267.14	7,432.03	-868.10	-226.96	231.80	13.42	10.76	8.77
7,703.43	68.72	267.61	7,437.16	-868.68	-239.51	244.35	13.79	13.41	3.46
7,717.00	70.67	267.75	7,441.87	-869.19	-252.22	257.07	14.40	14.37	1.03
7,730.57	72.66	267.86	7,446.14	-869.69	-265.09	269.95	14.68	14.66	0.81
7,744.14	74.68	267.90	7,449.95	-870.17	-278.11	282.96	14.89	14.89	0.29
7,757.71	76.73	267.83	7,453.30	-870.66	-291.25	296.10	15.12	15.11	-0.52
7,771.29	78.64	268.24	7,456.20	-871.11	-304.51	309.37	14.37	14.06	3.02
7,784.86	79.61	270.00	7,458.76	-871.32	-317.83	322.69	14.61	7.15	12.97
7,798.43	81.63	270.36	7,460.97	-871.28	-331.22	336.08	15.11	14.89	2.65
7,812.00	83.65	270.06	7,462.71	-871.23	-344.67	349.53	15.05	14.89	-2.21
7,824.42	85.47	269.87	7,463.89	-871.24	-357.03	361.89	14.75	14.67	-1.56
02-LP(D -123H)									
7,825.43	85.62	269.85	7,463.96	-871.24	-358.04	362.91	14.75	14.67	-1.56
7,838.86	86.22	270.06	7,464.92	-871.25	-371.44	376.30	4.73	4.47	1.56
7,852.29	86.45	270.42	7,465.78	-871.19	-384.84	389.70	3.18	1.71	2.68
7,865.71	86.80	270.76	7,466.57	-871.05	-398.24	403.10	3.63	2.61	2.53
7,879.14	88.44	270.43	7,467.13	-870.91	-411.66	416.51	12.46	12.21	-2.46
7,892.57	90.32	269.61	7,467.27	-870.91	-425.08	429.94	15.27	14.00	-6.11
7,906.00	92.24	268.76	7,466.97	-871.10	-438.51	443.37	15.63	14.30	-6.33
EOC: 7906.00' MD, 443.37' VS, 7466.97' TVD									
7,919.57	92.61	268.68	7,466.40	-871.40	-452.06	456.92	2.79	2.73	-0.59
7,933.14	92.67	268.65	7,465.77	-871.72	-465.62	470.48	0.49	0.44	-0.22
7,946.71	92.68	268.59	7,465.14	-872.05	-479.17	484.03	0.45	0.07	-0.44
7,960.29	92.66	268.51	7,464.51	-872.39	-492.73	497.59	0.61	-0.15	-0.59



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
7,973.86	92.63	268.42	7,463.88	-872.75	-506.28	511.15	0.70	-0.22	-0.66	
7,987.43	92.61	268.32	7,463.26	-873.14	-519.83	524.70	0.75	-0.15	-0.74	
8,001.00	92.61	268.21	7,462.64	-873.55	-533.38	538.25	0.81	0.00	-0.81	
8,014.57	92.65	268.10	7,462.02	-873.99	-546.93	551.80	0.86	0.29	-0.81	
8,028.14	92.71	268.00	7,461.38	-874.45	-560.47	565.35	0.86	0.44	-0.74	
8,041.71	92.78	267.89	7,460.73	-874.93	-574.02	578.90	0.96	0.52	-0.81	
8,055.29	92.85	267.79	7,460.07	-875.44	-587.57	592.45	0.90	0.52	-0.74	
8,068.86	92.93	267.70	7,459.38	-875.98	-601.12	606.00	0.89	0.59	-0.66	
8,082.43	92.99	267.61	7,458.68	-876.53	-614.66	619.54	0.80	0.44	-0.66	
8,096.00	93.00	267.55	7,457.97	-877.10	-628.20	633.09	0.45	0.07	-0.44	
8,109.43	92.93	267.51	7,457.28	-877.68	-641.60	646.49	0.60	-0.52	-0.30	
8,122.86	92.79	267.48	7,456.61	-878.27	-655.00	659.89	1.07	-1.04	-0.22	
8,136.29	92.59	267.47	7,455.98	-878.86	-668.40	673.30	1.49	-1.49	-0.07	
8,149.71	92.31	267.45	7,455.41	-879.45	-681.79	686.69	2.09	-2.09	-0.15	
8,163.14	91.76	267.68	7,454.93	-880.02	-695.20	700.11	4.44	-4.10	1.71	
8,176.57	90.49	269.40	7,454.66	-880.37	-708.62	713.53	15.92	-9.46	12.81	
8,190.00	90.02	269.48	7,454.60	-880.50	-722.05	726.96	3.55	-3.50	0.60	
8,203.57	89.81	269.45	7,454.62	-880.62	-735.62	740.53	1.56	-1.55	-0.22	
8,217.14	89.73	269.41	7,454.68	-880.76	-749.19	754.10	0.66	-0.59	-0.29	
8,230.71	89.76	269.37	7,454.74	-880.90	-762.76	767.67	0.37	0.22	-0.29	
8,244.29	89.85	269.33	7,454.79	-881.06	-776.34	781.25	0.73	0.66	-0.29	
8,257.86	89.97	269.29	7,454.81	-881.22	-789.91	794.82	0.93	0.88	-0.29	
8,271.43	90.12	269.24	7,454.80	-881.39	-803.48	808.39	1.17	1.11	-0.37	
8,285.00	90.26	269.21	7,454.75	-881.58	-817.05	821.96	1.06	1.03	-0.22	
8,298.57	90.36	269.17	7,454.68	-881.77	-830.62	835.53	0.79	0.74	-0.29	
8,312.14	90.45	269.14	7,454.58	-881.97	-844.18	849.10	0.70	0.66	-0.22	
8,325.71	90.52	269.11	7,454.47	-882.18	-857.75	862.67	0.56	0.52	-0.22	
8,339.29	90.57	269.08	7,454.34	-882.39	-871.33	876.24	0.43	0.37	-0.22	
8,352.86	90.62	269.05	7,454.20	-882.61	-884.90	889.81	0.43	0.37	-0.22	
8,366.43	90.65	269.02	7,454.05	-882.84	-898.46	903.38	0.31	0.22	-0.22	
8,380.00	90.68	268.99	7,453.89	-883.08	-912.03	916.95	0.31	0.22	-0.22	
8,393.57	90.71	268.96	7,453.72	-883.32	-925.60	930.52	0.31	0.22	-0.22	
8,407.14	90.75	268.93	7,453.55	-883.57	-939.16	944.08	0.37	0.29	-0.22	
8,420.71	90.79	268.91	7,453.37	-883.83	-952.73	957.65	0.33	0.29	-0.15	
8,434.29	90.84	268.88	7,453.18	-884.09	-966.31	971.23	0.43	0.37	-0.22	
8,447.86	90.90	268.86	7,452.97	-884.35	-979.87	984.80	0.47	0.44	-0.15	
8,461.43	90.97	268.84	7,452.75	-884.63	-993.44	998.36	0.54	0.52	-0.15	
8,475.00	91.03	268.82	7,452.51	-884.90	-1,007.00	1,011.93	0.47	0.44	-0.15	
8,488.43	91.10	268.82	7,452.26	-885.18	-1,020.43	1,025.36	0.52	0.52	0.00	
8,501.86	91.16	268.82	7,452.00	-885.46	-1,033.85	1,038.78	0.45	0.45	0.00	
8,515.29	91.23	268.82	7,451.72	-885.73	-1,047.28	1,052.21	0.52	0.52	0.00	
8,528.71	91.29	268.82	7,451.42	-886.01	-1,060.69	1,065.62	0.45	0.45	0.00	
8,542.14	91.34	268.82	7,451.11	-886.29	-1,074.11	1,079.05	0.37	0.37	0.00	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,555.57	91.38	268.82	7,450.80	-886.56	-1,087.54	1,092.47	0.30	0.30	0.00	
8,569.00	91.41	268.80	7,450.47	-886.84	-1,100.96	1,105.90	0.27	0.22	-0.15	
8,582.57	91.43	268.77	7,450.13	-887.13	-1,114.52	1,119.46	0.27	0.15	-0.22	
8,596.14	91.45	268.72	7,449.79	-887.43	-1,128.09	1,133.03	0.40	0.15	-0.37	
8,609.71	91.47	268.67	7,449.45	-887.74	-1,141.65	1,146.59	0.40	0.15	-0.37	
8,623.29	91.48	268.61	7,449.10	-888.06	-1,155.22	1,160.16	0.45	0.07	-0.44	
8,636.86	91.50	268.55	7,448.74	-888.39	-1,168.78	1,173.72	0.47	0.15	-0.44	
8,650.43	91.52	268.48	7,448.39	-888.75	-1,182.34	1,187.29	0.54	0.15	-0.52	
8,664.00	91.55	268.40	7,448.02	-889.11	-1,195.90	1,200.85	0.63	0.22	-0.59	
8,677.57	91.58	268.31	7,447.65	-889.50	-1,209.46	1,214.41	0.70	0.22	-0.66	
8,691.14	91.62	268.22	7,447.27	-889.91	-1,223.02	1,227.97	0.73	0.29	-0.66	
8,704.71	91.68	268.12	7,446.88	-890.35	-1,236.58	1,241.53	0.86	0.44	-0.74	
8,718.29	91.74	268.03	7,446.48	-890.80	-1,250.14	1,255.10	0.80	0.44	-0.66	
8,731.86	91.81	267.93	7,446.06	-891.28	-1,263.70	1,268.66	0.90	0.52	-0.74	
8,745.43	91.87	267.83	7,445.62	-891.78	-1,277.25	1,282.21	0.86	0.44	-0.74	
8,759.00	91.93	267.73	7,445.17	-892.31	-1,290.80	1,295.77	0.86	0.44	-0.74	
8,772.43	91.97	267.64	7,444.71	-892.85	-1,304.22	1,309.18	0.73	0.30	-0.67	
8,785.86	92.00	267.56	7,444.25	-893.41	-1,317.63	1,322.60	0.64	0.22	-0.60	
8,799.29	92.02	267.48	7,443.78	-893.99	-1,331.04	1,336.01	0.61	0.15	-0.60	
8,812.71	92.04	267.40	7,443.30	-894.59	-1,344.43	1,349.41	0.61	0.15	-0.60	
8,826.14	92.07	267.33	7,442.82	-895.21	-1,357.84	1,362.82	0.57	0.22	-0.52	
8,839.57	92.08	267.27	7,442.33	-895.84	-1,371.25	1,376.23	0.45	0.07	-0.45	
8,853.00	92.06	267.21	7,441.85	-896.49	-1,384.65	1,389.64	0.47	-0.15	-0.45	
8,866.57	91.97	267.17	7,441.37	-897.15	-1,398.20	1,403.19	0.73	-0.66	-0.29	
8,880.14	92.06	267.07	7,440.89	-897.84	-1,411.74	1,416.74	0.99	0.66	-0.74	
8,893.71	92.04	266.99	7,440.41	-898.54	-1,425.29	1,430.28	0.61	-0.15	-0.59	
8,907.29	91.90	266.91	7,439.94	-899.26	-1,438.84	1,443.84	1.19	-1.03	-0.59	
8,920.86	91.63	266.84	7,439.52	-900.00	-1,452.38	1,457.39	2.06	-1.99	-0.52	
8,934.43	91.20	266.77	7,439.19	-900.76	-1,465.93	1,470.93	3.21	-3.17	-0.52	
8,948.00	90.08	267.30	7,439.04	-901.46	-1,479.48	1,484.49	9.13	-8.25	3.91	
8,961.57	89.11	267.76	7,439.13	-902.04	-1,493.03	1,498.05	7.91	-7.15	3.39	
8,975.14	88.88	267.65	7,439.37	-902.59	-1,506.59	1,511.61	1.88	-1.69	-0.81	
8,988.71	88.79	267.54	7,439.65	-903.15	-1,520.15	1,525.17	1.05	-0.66	-0.81	
9,002.29	88.80	267.42	7,439.93	-903.75	-1,533.71	1,538.73	0.89	0.07	-0.88	
9,015.86	88.86	267.31	7,440.21	-904.38	-1,547.26	1,552.29	0.92	0.44	-0.81	
9,029.43	88.95	267.19	7,440.47	-905.03	-1,560.82	1,565.85	1.11	0.66	-0.88	
9,043.00	89.06	267.07	7,440.71	-905.71	-1,574.37	1,579.40	1.20	0.81	-0.88	
9,056.43	89.16	266.97	7,440.91	-906.40	-1,587.78	1,592.81	1.05	0.74	-0.74	
9,069.86	89.27	266.87	7,441.10	-907.13	-1,601.19	1,606.23	1.11	0.82	-0.74	
9,083.29	89.35	266.77	7,441.26	-907.87	-1,614.59	1,619.64	0.95	0.60	-0.74	
9,096.71	89.46	266.68	7,441.40	-908.64	-1,627.99	1,633.04	1.06	0.82	-0.67	
9,110.14	89.56	266.60	7,441.51	-909.42	-1,641.40	1,646.45	0.95	0.74	-0.60	
9,123.57	89.71	267.48	7,441.60	-910.12	-1,654.81	1,659.87	6.65	1.12	6.55	
9,137.00	89.77	268.83	7,441.66	-910.55	-1,668.23	1,673.29	10.06	0.45	10.05	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,150.57	89.83	269.32	7,441.71	-910.77	-1,681.80	1,686.86	3.64	0.44	3.61	
9,164.14	89.90	269.26	7,441.74	-910.94	-1,695.37	1,700.43	0.68	0.52	-0.44	
9,177.71	89.96	269.19	7,441.76	-911.12	-1,708.94	1,714.00	0.68	0.44	-0.52	
9,191.29	90.01	269.13	7,441.76	-911.32	-1,722.52	1,727.58	0.58	0.37	-0.44	
9,204.86	90.06	269.06	7,441.75	-911.53	-1,736.08	1,741.15	0.63	0.37	-0.52	
9,218.43	90.09	268.99	7,441.73	-911.76	-1,749.65	1,754.72	0.56	0.22	-0.52	
9,232.00	90.11	268.91	7,441.71	-912.01	-1,763.22	1,768.29	0.61	0.15	-0.59	
9,245.57	90.11	268.80	7,441.68	-912.28	-1,776.79	1,781.85	0.81	0.00	-0.81	
9,259.14	90.08	268.69	7,441.66	-912.58	-1,790.35	1,795.42	0.84	-0.22	-0.81	
9,272.71	90.03	268.58	7,441.65	-912.91	-1,803.92	1,808.99	0.89	-0.37	-0.81	
9,286.29	90.01	268.47	7,441.64	-913.25	-1,817.50	1,822.57	0.82	-0.15	-0.81	
9,299.86	90.00	268.39	7,441.64	-913.63	-1,831.06	1,836.13	0.59	-0.07	-0.59	
9,313.43	90.07	269.70	7,441.63	-913.85	-1,844.63	1,849.70	9.67	0.52	9.65	
9,327.00	90.21	270.91	7,441.60	-913.78	-1,858.20	1,863.27	8.98	1.03	8.92	
9,340.43	90.30	270.90	7,441.54	-913.57	-1,871.63	1,876.70	0.67	0.67	-0.07	
9,353.86	90.40	270.91	7,441.46	-913.36	-1,885.05	1,890.13	0.75	0.74	0.07	
9,367.29	90.51	270.93	7,441.35	-913.14	-1,898.48	1,903.55	0.83	0.82	0.15	
9,380.71	90.61	270.95	7,441.22	-912.92	-1,911.90	1,916.97	0.76	0.75	0.15	
9,394.14	90.69	270.97	7,441.07	-912.70	-1,925.33	1,930.39	0.61	0.60	0.15	
9,407.57	90.77	270.97	7,440.90	-912.47	-1,938.75	1,943.82	0.60	0.60	0.00	
9,421.00	90.85	270.94	7,440.71	-912.24	-1,952.18	1,957.25	0.64	0.60	-0.22	
9,434.57	90.93	270.87	7,440.50	-912.03	-1,965.75	1,970.81	0.78	0.59	-0.52	
9,448.14	91.02	270.78	7,440.27	-911.83	-1,979.31	1,984.38	0.94	0.66	-0.66	
9,461.71	91.09	270.67	7,440.02	-911.66	-1,992.88	1,997.94	0.96	0.52	-0.81	
9,475.29	91.18	270.56	7,439.75	-911.52	-2,006.46	2,011.52	1.05	0.66	-0.81	
9,488.86	91.29	270.47	7,439.46	-911.40	-2,020.02	2,025.08	1.05	0.81	-0.66	
9,502.43	91.44	270.40	7,439.13	-911.29	-2,033.59	2,038.65	1.22	1.11	-0.52	
9,516.00	91.59	270.38	7,438.77	-911.20	-2,047.15	2,052.21	1.12	1.11	-0.15	
9,529.57	91.72	270.42	7,438.38	-911.11	-2,060.72	2,065.77	1.00	0.96	0.29	
9,543.14	91.81	270.50	7,437.96	-911.00	-2,074.28	2,079.34	0.89	0.66	0.59	
9,556.71	91.88	270.61	7,437.53	-910.86	-2,087.84	2,092.90	0.96	0.52	0.81	
9,570.29	91.94	270.71	7,437.07	-910.71	-2,101.42	2,106.47	0.86	0.44	0.74	
9,583.86	91.98	270.81	7,436.61	-910.53	-2,114.98	2,120.03	0.79	0.29	0.74	
9,597.43	91.18	271.93	7,436.24	-910.20	-2,128.54	2,133.59	10.14	-5.90	8.25	
9,611.00	91.03	272.62	7,435.97	-909.67	-2,142.09	2,147.14	5.20	-1.11	5.08	
9,624.43	91.15	272.62	7,435.72	-909.05	-2,155.51	2,160.55	0.89	0.89	0.00	
9,637.86	91.28	272.61	7,435.43	-908.44	-2,168.92	2,173.96	0.97	0.97	-0.07	
9,651.29	91.40	272.58	7,435.12	-907.83	-2,182.33	2,187.37	0.92	0.89	-0.22	
9,664.71	91.53	272.55	7,434.78	-907.23	-2,195.73	2,200.77	0.99	0.97	-0.22	
9,678.14	91.65	272.52	7,434.40	-906.64	-2,209.15	2,214.18	0.92	0.89	-0.22	
9,691.57	91.76	272.49	7,434.00	-906.05	-2,222.56	2,227.58	0.85	0.82	-0.22	
9,705.00	91.86	272.48	7,433.58	-905.47	-2,235.97	2,240.99	0.75	0.74	-0.07	
9,718.57	91.93	272.50	7,433.13	-904.88	-2,249.52	2,254.54	0.54	0.52	0.15	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,732.14	91.97	272.53	7,432.67	-904.28	-2,263.07	2,268.08	0.37	0.29	0.22
9,745.71	91.98	272.57	7,432.20	-903.68	-2,276.62	2,281.63	0.30	0.07	0.29
9,759.29	91.98	272.64	7,431.73	-903.06	-2,290.17	2,295.18	0.52	0.00	0.52
9,772.86	91.96	272.72	7,431.27	-902.43	-2,303.72	2,308.72	0.61	-0.15	0.59
9,786.43	90.86	272.20	7,430.93	-901.85	-2,317.27	2,322.27	8.97	-8.11	-3.83
9,800.00	90.74	272.25	7,430.74	-901.32	-2,330.83	2,335.83	0.96	-0.88	0.37
9,813.43	90.85	272.44	7,430.56	-900.77	-2,344.25	2,349.24	1.63	0.82	1.41
9,826.86	91.02	272.67	7,430.34	-900.17	-2,357.66	2,362.66	2.13	1.27	1.71
9,840.29	91.23	272.91	7,430.07	-899.52	-2,371.08	2,376.06	2.37	1.56	1.79
9,853.71	91.47	273.15	7,429.76	-898.81	-2,384.47	2,389.46	2.53	1.79	1.79
9,867.14	91.72	273.38	7,429.38	-898.05	-2,397.88	2,402.85	2.53	1.86	1.71
9,880.57	91.94	273.59	7,428.95	-897.23	-2,411.27	2,416.25	2.26	1.64	1.56
9,894.00	92.13	273.75	7,428.48	-896.37	-2,424.67	2,429.64	1.85	1.41	1.19
9,907.57	92.24	273.84	7,427.96	-895.47	-2,438.20	2,443.16	1.05	0.81	0.66
9,921.14	92.28	273.89	7,427.43	-894.56	-2,451.73	2,456.69	0.47	0.29	0.37
9,934.71	92.26	273.91	7,426.89	-893.64	-2,465.26	2,470.21	0.21	-0.15	0.15
9,948.29	92.18	273.92	7,426.36	-892.71	-2,478.79	2,483.74	0.59	-0.59	0.07
9,961.86	92.07	273.93	7,425.86	-891.78	-2,492.32	2,497.26	0.81	-0.81	0.07
9,964.63	91.92	273.76	7,425.76	-891.60	-2,495.08	2,500.02	8.30	-5.45	-6.27
03-V2500(D-123H)									
9,975.43	91.33	273.08	7,425.46	-890.95	-2,505.86	2,510.80	8.30	-5.45	-6.26
9,989.00	90.30	271.93	7,425.26	-890.36	-2,519.42	2,524.35	11.38	-7.59	-8.47
10,002.57	89.81	271.20	7,425.25	-889.99	-2,532.98	2,537.91	6.48	-3.61	-5.38
10,016.14	89.82	271.28	7,425.29	-889.70	-2,546.55	2,551.48	0.59	0.07	0.59
10,029.71	89.85	271.36	7,425.33	-889.38	-2,560.11	2,565.04	0.63	0.22	0.59
10,043.29	89.88	271.45	7,425.36	-889.05	-2,573.69	2,578.62	0.70	0.22	0.66
10,056.86	89.92	271.53	7,425.39	-888.70	-2,587.26	2,592.18	0.66	0.29	0.59
10,070.43	89.95	271.59	7,425.40	-888.33	-2,600.82	2,605.74	0.49	0.22	0.44
10,084.00	89.98	271.63	7,425.41	-887.95	-2,614.39	2,619.30	0.37	0.22	0.29
10,097.57	89.99	271.63	7,425.42	-887.56	-2,627.95	2,632.87	0.07	0.07	0.00
10,111.14	90.02	271.60	7,425.41	-887.18	-2,641.51	2,646.43	0.31	0.22	-0.22
10,124.71	90.08	271.55	7,425.40	-886.80	-2,655.08	2,659.99	0.58	0.44	-0.37
10,138.29	90.11	271.50	7,425.38	-886.44	-2,668.65	2,673.56	0.43	0.22	-0.37
10,151.86	90.08	271.45	7,425.36	-886.09	-2,682.22	2,687.13	0.43	-0.22	-0.37
10,165.43	90.27	270.14	7,425.32	-885.91	-2,695.79	2,700.69	9.75	1.40	-9.65
10,179.00	90.51	269.18	7,425.22	-885.99	-2,709.36	2,714.26	7.29	1.77	-7.07
10,192.43	90.50	269.15	7,425.11	-886.18	-2,722.79	2,727.69	0.24	-0.07	-0.22
10,205.86	90.51	269.14	7,424.99	-886.38	-2,736.21	2,741.12	0.11	0.07	-0.07
10,219.29	90.54	269.12	7,424.86	-886.59	-2,749.64	2,754.55	0.27	0.22	-0.15
10,232.71	90.59	269.11	7,424.73	-886.79	-2,763.06	2,767.97	0.38	0.37	-0.07
10,246.14	90.65	269.11	7,424.59	-887.00	-2,776.49	2,781.40	0.45	0.45	0.00
10,259.57	90.71	269.11	7,424.43	-887.21	-2,789.91	2,794.83	0.45	0.45	0.00
10,273.00	90.77	269.13	7,424.25	-887.42	-2,803.34	2,808.25	0.47	0.45	0.15
10,286.57	90.83	269.16	7,424.06	-887.62	-2,816.91	2,821.82	0.49	0.44	0.22



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.14	90.88	269.19	7,423.86	-887.81	-2,830.48	2,835.39	0.43	0.37	0.22
10,313.71	90.96	269.24	7,423.64	-888.00	-2,844.04	2,848.96	0.70	0.59	0.37
10,327.29	91.05	269.29	7,423.41	-888.18	-2,857.62	2,862.54	0.76	0.66	0.37
10,340.86	91.16	269.34	7,423.14	-888.34	-2,871.19	2,876.10	0.89	0.81	0.37
10,354.43	91.26	269.39	7,422.86	-888.49	-2,884.75	2,889.67	0.82	0.74	0.37
10,368.00	91.35	269.43	7,422.55	-888.63	-2,898.32	2,903.24	0.73	0.66	0.29
10,381.57	91.44	269.47	7,422.22	-888.76	-2,911.88	2,916.80	0.73	0.66	0.29
10,395.14	91.53	269.50	7,421.87	-888.88	-2,925.45	2,930.37	0.70	0.66	0.22
10,408.71	91.62	269.52	7,421.49	-889.00	-2,939.01	2,943.93	0.68	0.66	0.15
10,422.29	91.70	269.55	7,421.10	-889.11	-2,952.59	2,957.51	0.63	0.59	0.22
10,435.86	91.79	269.56	7,420.69	-889.21	-2,966.15	2,971.07	0.67	0.66	0.07
10,449.43	91.88	269.58	7,420.25	-889.31	-2,979.71	2,984.63	0.68	0.66	0.15
10,463.00	91.98	269.58	7,419.80	-889.41	-2,993.27	2,998.19	0.74	0.74	0.00
10,476.43	92.09	269.58	7,419.32	-889.51	-3,006.70	3,011.62	0.82	0.82	0.00
10,489.86	92.20	269.57	7,418.82	-889.61	-3,020.12	3,025.04	0.82	0.82	-0.07
10,503.29	92.32	269.56	7,418.29	-889.71	-3,033.53	3,038.46	0.90	0.89	-0.07
10,516.71	92.45	269.54	7,417.73	-889.82	-3,046.94	3,051.86	0.98	0.97	-0.15
10,530.14	92.60	269.52	7,417.14	-889.93	-3,060.36	3,065.28	1.13	1.12	-0.15
10,543.57	92.76	269.50	7,416.51	-890.04	-3,073.77	3,078.70	1.20	1.19	-0.15
10,557.00	92.93	269.48	7,415.84	-890.16	-3,087.19	3,092.11	1.27	1.27	-0.15
10,570.57	93.09	269.45	7,415.13	-890.29	-3,100.74	3,105.66	1.20	1.18	-0.22
10,584.14	93.23	269.42	7,414.38	-890.42	-3,114.29	3,119.21	1.06	1.03	-0.22
10,597.71	93.36	269.39	7,413.60	-890.56	-3,127.83	3,132.76	0.98	0.96	-0.22
10,611.29	93.50	269.37	7,412.79	-890.71	-3,141.39	3,146.31	1.04	1.03	-0.15
10,624.86	93.64	269.36	7,411.94	-890.86	-3,154.93	3,159.86	1.03	1.03	-0.07
10,638.43	93.78	269.36	7,411.07	-891.01	-3,168.47	3,173.40	1.03	1.03	0.00
10,652.00	93.93	269.39	7,410.15	-891.16	-3,182.01	3,186.94	1.13	1.11	0.22
10,665.57	94.10	269.45	7,409.20	-891.30	-3,195.55	3,200.47	1.33	1.25	0.44
10,679.14	94.27	269.54	7,408.21	-891.41	-3,209.08	3,214.01	1.42	1.25	0.66
10,692.71	94.44	269.64	7,407.18	-891.51	-3,222.61	3,227.54	1.45	1.25	0.74
10,706.29	94.58	269.74	7,406.11	-891.58	-3,236.15	3,241.08	1.27	1.03	0.74
10,719.86	94.66	269.84	7,405.02	-891.63	-3,249.67	3,254.60	0.94	0.59	0.74
10,733.43	94.00	270.02	7,404.00	-891.65	-3,263.20	3,268.13	5.04	-4.86	1.33
10,747.00	93.21	270.26	7,403.14	-891.62	-3,276.75	3,281.68	6.08	-5.82	1.77
10,760.57	93.30	270.34	7,402.37	-891.55	-3,290.30	3,295.22	0.89	0.66	0.59
10,774.14	93.42	270.40	7,401.58	-891.46	-3,303.84	3,308.77	0.99	0.88	0.44
10,787.71	93.56	270.47	7,400.75	-891.36	-3,317.39	3,322.31	1.15	1.03	0.52
10,801.29	93.73	270.52	7,399.89	-891.24	-3,330.94	3,335.86	1.30	1.25	0.37
10,814.86	93.91	270.58	7,398.98	-891.11	-3,344.48	3,349.40	1.40	1.33	0.44
10,828.43	94.10	270.62	7,398.04	-890.97	-3,358.01	3,362.94	1.43	1.40	0.29
10,842.00	94.30	270.65	7,397.04	-890.82	-3,371.55	3,376.47	1.49	1.47	0.22
10,855.57	94.48	270.67	7,396.00	-890.66	-3,385.08	3,390.00	1.33	1.33	0.15
10,869.14	94.61	270.67	7,394.93	-890.50	-3,398.60	3,403.52	0.96	0.96	0.00



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,882.71	94.69	270.67	7,393.83	-890.35	-3,412.13	3,417.05	0.59	0.59	0.00
10,896.29	94.75	270.67	7,392.71	-890.19	-3,425.66	3,430.58	0.44	0.44	0.00
10,909.86	94.81	270.66	7,391.58	-890.03	-3,439.18	3,444.10	0.45	0.44	-0.07
10,923.43	94.52	270.65	7,390.48	-889.88	-3,452.71	3,457.62	2.14	-2.14	-0.07
10,937.00	94.57	270.65	7,389.40	-889.72	-3,466.23	3,471.15	0.37	0.37	0.00
10,950.57	94.64	270.67	7,388.31	-889.57	-3,479.76	3,484.67	0.54	0.52	0.15
10,964.14	94.75	270.68	7,387.20	-889.41	-3,493.28	3,498.19	0.81	0.81	0.07
10,977.71	94.87	270.70	7,386.06	-889.24	-3,506.80	3,511.71	0.90	0.88	0.15
10,991.29	95.01	270.71	7,384.89	-889.08	-3,520.33	3,525.24	1.03	1.03	0.07
11,004.86	95.17	270.72	7,383.69	-888.91	-3,533.85	3,538.76	1.18	1.18	0.07
11,018.43	95.36	270.72	7,382.44	-888.74	-3,547.36	3,552.27	1.40	1.40	0.00
11,032.00	95.56	270.70	7,381.15	-888.57	-3,560.87	3,565.77	1.48	1.47	-0.15
11,045.43	95.77	270.67	7,379.83	-888.41	-3,574.23	3,579.13	1.58	1.56	-0.22
11,058.86	95.93	270.61	7,378.46	-888.26	-3,587.59	3,592.49	1.27	1.19	-0.45
11,072.29	96.05	270.55	7,377.06	-888.13	-3,600.94	3,605.85	1.00	0.89	-0.45
11,085.71	96.16	270.49	7,375.63	-888.01	-3,614.29	3,619.19	0.93	0.82	-0.45
11,099.14	96.25	270.44	7,374.18	-887.90	-3,627.64	3,632.54	0.77	0.67	-0.37
11,112.57	96.43	269.68	7,372.70	-887.88	-3,640.99	3,645.89	5.78	1.34	-5.66
11,126.00	96.29	268.83	7,371.21	-888.06	-3,654.33	3,659.23	6.38	-1.04	-6.33
11,139.57	96.49	268.80	7,369.70	-888.34	-3,667.81	3,672.72	1.49	1.47	-0.22
11,153.14	96.70	268.77	7,368.14	-888.62	-3,681.29	3,686.20	1.56	1.55	-0.22
11,166.71	96.89	268.75	7,366.53	-888.91	-3,694.76	3,699.67	1.41	1.40	-0.15
11,180.29	97.04	268.72	7,364.89	-889.21	-3,708.24	3,713.15	1.13	1.10	-0.22
11,193.86	97.19	268.70	7,363.21	-889.51	-3,721.70	3,726.61	1.12	1.11	-0.15
11,207.43	96.17	268.26	7,361.63	-889.87	-3,735.17	3,740.09	8.18	-7.52	-3.24
11,221.00	95.13	267.92	7,360.29	-890.32	-3,748.67	3,753.59	8.06	-7.66	-2.51
11,234.57	95.26	267.89	7,359.06	-890.82	-3,762.18	3,767.09	0.98	0.96	-0.22
11,248.14	95.39	267.86	7,357.80	-891.32	-3,775.68	3,780.60	0.98	0.96	-0.22
11,261.71	95.52	267.82	7,356.51	-891.83	-3,789.18	3,794.10	1.00	0.96	-0.29
11,275.29	95.63	267.78	7,355.19	-892.35	-3,802.68	3,807.61	0.86	0.81	-0.29
11,288.86	95.75	267.73	7,353.85	-892.87	-3,816.18	3,821.10	0.96	0.88	-0.37
11,302.43	95.85	267.67	7,352.48	-893.42	-3,829.67	3,834.60	0.86	0.74	-0.44
11,316.00	95.94	267.59	7,351.08	-893.97	-3,843.15	3,848.09	0.89	0.66	-0.59
11,329.57	96.00	267.50	7,349.67	-894.55	-3,856.64	3,861.57	0.79	0.44	-0.66
11,343.14	96.06	267.39	7,348.25	-895.15	-3,870.12	3,875.06	0.92	0.44	-0.81
11,356.71	96.10	267.28	7,346.81	-895.78	-3,883.60	3,888.54	0.86	0.29	-0.81
11,370.29	96.10	267.17	7,345.37	-896.44	-3,897.08	3,902.03	0.81	0.00	-0.81
11,383.86	96.01	267.07	7,343.93	-897.11	-3,910.56	3,915.51	0.99	-0.66	-0.74
11,397.43	95.12	267.41	7,342.62	-897.76	-3,924.05	3,929.00	7.02	-6.56	2.51
11,411.00	93.95	267.70	7,341.55	-898.34	-3,937.57	3,942.52	8.88	-8.62	2.14
11,424.43	93.03	268.03	7,340.73	-898.84	-3,950.96	3,955.92	7.28	-6.85	2.46
11,437.86	93.15	267.99	7,340.00	-899.31	-3,964.36	3,969.33	0.94	0.89	-0.30
11,451.29	93.20	267.96	7,339.26	-899.78	-3,977.77	3,982.73	0.43	0.37	-0.22



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,464.71	93.29	267.92	7,338.50	-900.26	-3,991.16	3,996.12	0.73	0.67	-0.30
11,478.14	93.43	267.90	7,337.71	-900.75	-4,004.55	4,009.52	1.05	1.04	-0.15
11,491.57	93.61	267.87	7,336.89	-901.24	-4,017.95	4,022.92	1.36	1.34	-0.22
11,505.00	93.82	267.86	7,336.02	-901.74	-4,031.34	4,036.31	1.57	1.56	-0.07
11,518.57	94.05	267.85	7,335.09	-902.25	-4,044.87	4,049.85	1.70	1.69	-0.07
11,532.14	94.29	267.85	7,334.10	-902.76	-4,058.39	4,063.37	1.77	1.77	0.00
11,545.71	94.51	267.85	7,333.06	-903.27	-4,071.92	4,076.90	1.62	1.62	0.00
11,559.29	94.71	267.85	7,331.97	-903.77	-4,085.44	4,090.43	1.47	1.47	0.00
11,572.86	94.94	267.86	7,330.83	-904.28	-4,098.95	4,103.94	1.70	1.69	0.07
11,586.43	95.16	267.87	7,329.63	-904.78	-4,112.46	4,117.45	1.62	1.62	0.07
11,600.00	95.36	267.87	7,328.39	-905.29	-4,125.97	4,130.96	1.47	1.47	0.00
11,613.57	95.56	267.87	7,327.10	-905.79	-4,139.46	4,144.46	1.47	1.47	0.00
11,627.14	95.72	267.87	7,325.76	-906.29	-4,152.96	4,157.96	1.18	1.18	0.00
11,640.71	95.89	267.87	7,324.39	-906.79	-4,166.45	4,171.45	1.25	1.25	0.00
11,654.29	96.06	267.87	7,322.98	-907.29	-4,179.95	4,184.95	1.25	1.25	0.00
11,667.86	96.21	267.86	7,321.53	-907.80	-4,193.43	4,198.44	1.11	1.11	-0.07
11,681.43	96.33	267.84	7,320.05	-908.30	-4,206.91	4,211.92	0.90	0.88	-0.15
11,695.00	96.42	267.82	7,318.54	-908.81	-4,220.39	4,225.40	0.68	0.66	-0.15
11,708.57	96.37	267.77	7,317.03	-909.33	-4,233.86	4,238.87	0.52	-0.37	-0.37
11,722.14	96.18	267.73	7,315.54	-909.86	-4,247.34	4,252.36	1.43	-1.40	-0.29
11,735.71	95.56	267.75	7,314.16	-910.39	-4,260.83	4,265.85	4.57	-4.57	0.15
11,749.29	94.31	268.03	7,312.99	-910.89	-4,274.35	4,279.37	9.43	-9.20	2.06
11,762.86	93.83	268.08	7,312.02	-911.35	-4,287.88	4,292.90	3.56	-3.54	0.37
11,776.43	92.76	268.52	7,311.24	-911.75	-4,301.42	4,306.44	8.52	-7.89	3.24
11,790.00	91.55	268.91	7,310.73	-912.06	-4,314.97	4,320.00	9.37	-8.92	2.87
11,803.43	90.37	269.37	7,310.51	-912.26	-4,328.40	4,333.43	9.43	-8.79	3.43
11,816.86	90.16	269.46	7,310.45	-912.40	-4,341.83	4,346.86	1.70	-1.56	0.67
11,830.29	90.17	269.44	7,310.41	-912.52	-4,355.26	4,360.29	0.17	0.07	-0.15
11,843.71	90.16	269.41	7,310.37	-912.66	-4,368.68	4,373.71	0.24	-0.07	-0.22
11,857.14	90.07	269.38	7,310.34	-912.80	-4,382.11	4,387.14	0.71	-0.67	-0.22
11,870.57	89.51	269.59	7,310.39	-912.92	-4,395.54	4,400.57	4.45	-4.17	1.56
11,884.00	88.43	270.06	7,310.63	-912.96	-4,408.96	4,413.99	8.77	-8.04	3.50
11,897.57	87.25	270.50	7,311.15	-912.90	-4,422.52	4,427.55	9.28	-8.70	3.24
11,911.14	86.72	270.66	7,311.86	-912.76	-4,436.08	4,441.10	4.08	-3.91	1.18
11,924.71	86.87	270.57	7,312.62	-912.61	-4,449.62	4,454.65	1.29	1.11	-0.66
11,938.29	87.02	270.48	7,313.34	-912.49	-4,463.18	4,468.21	1.29	1.10	-0.66
11,951.86	87.17	270.39	7,314.03	-912.39	-4,476.74	4,481.76	1.29	1.11	-0.66
11,965.43	87.33	270.30	7,314.68	-912.31	-4,490.29	4,495.31	1.35	1.18	-0.66
11,979.00	87.47	270.23	7,315.30	-912.24	-4,503.85	4,508.87	1.15	1.03	-0.52
11,992.57	87.57	270.17	7,315.88	-912.19	-4,517.40	4,522.43	0.86	0.74	-0.44
12,006.14	87.67	270.13	7,316.45	-912.16	-4,530.96	4,535.98	0.79	0.74	-0.29
12,019.71	87.74	270.09	7,316.99	-912.13	-4,544.52	4,549.54	0.59	0.52	-0.29
12,033.29	87.81	270.07	7,317.52	-912.11	-4,558.09	4,563.11	0.54	0.52	-0.15
12,046.86	87.88	270.05	7,318.03	-912.10	-4,571.65	4,576.67	0.54	0.52	-0.15



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,060.43	87.95	270.03	7,318.52	-912.09	-4,585.21	4,590.23	0.54	0.52	-0.15
12,074.00	88.03	270.02	7,319.00	-912.08	-4,598.77	4,603.79	0.59	0.59	-0.07
12,087.57	88.11	270.02	7,319.45	-912.08	-4,612.33	4,617.36	0.59	0.59	0.00
12,101.14	88.21	270.02	7,319.89	-912.08	-4,625.90	4,630.92	0.74	0.74	0.00
12,114.17	88.32	270.03	7,320.28	-912.07	-4,638.92	4,643.95	0.81	0.81	0.07
00-W17_Arco003H(D-123H)									
12,114.71	88.32	270.03	7,320.30	-912.07	-4,639.46	4,644.48	0.81	0.81	0.07
12,128.29	88.44	270.03	7,320.68	-912.06	-4,653.04	4,658.06	0.88	0.88	0.00
12,141.86	88.57	270.04	7,321.04	-912.05	-4,666.60	4,671.62	0.96	0.96	0.07
12,155.43	88.70	270.05	7,321.36	-912.04	-4,680.17	4,685.19	0.96	0.96	0.07
12,169.00	88.83	270.06	7,321.65	-912.03	-4,693.73	4,698.76	0.96	0.96	0.07
12,182.43	88.94	270.07	7,321.92	-912.02	-4,707.16	4,712.18	0.82	0.82	0.07
12,195.86	89.05	270.08	7,322.15	-912.00	-4,720.59	4,725.61	0.82	0.82	0.07
12,209.29	89.17	270.09	7,322.36	-911.98	-4,734.02	4,739.04	0.90	0.89	0.07
12,222.71	89.29	270.10	7,322.54	-911.96	-4,747.44	4,752.46	0.90	0.89	0.07
12,236.14	89.42	270.10	7,322.69	-911.93	-4,760.87	4,765.89	0.97	0.97	0.00
12,249.57	90.13	270.07	7,322.74	-911.91	-4,774.30	4,779.31	5.29	5.29	-0.22
12,263.00	90.52	270.05	7,322.67	-911.90	-4,787.73	4,792.74	2.91	2.90	-0.15
12,276.57	90.65	270.04	7,322.53	-911.89	-4,801.30	4,806.31	0.96	0.96	-0.07
12,290.14	90.81	270.02	7,322.36	-911.88	-4,814.86	4,819.88	1.19	1.18	-0.15
12,303.71	90.98	270.00	7,322.14	-911.88	-4,828.43	4,833.45	1.26	1.25	-0.15
12,317.29	91.13	269.98	7,321.89	-911.88	-4,842.01	4,847.03	1.11	1.10	-0.15
12,330.86	91.27	269.96	7,321.61	-911.89	-4,855.58	4,860.59	1.04	1.03	-0.15
12,344.43	91.41	269.94	7,321.29	-911.90	-4,869.14	4,874.16	1.04	1.03	-0.15
12,358.00	91.54	269.93	7,320.94	-911.91	-4,882.71	4,887.73	0.96	0.96	-0.07
12,371.57	91.67	269.92	7,320.56	-911.93	-4,896.27	4,901.29	0.96	0.96	-0.07
12,385.14	91.79	269.92	7,320.15	-911.95	-4,909.84	4,914.85	0.88	0.88	0.00
12,398.71	91.92	269.93	7,319.71	-911.97	-4,923.40	4,928.42	0.96	0.96	0.07
12,412.29	92.06	269.93	7,319.24	-911.99	-4,936.97	4,941.99	1.03	1.03	0.00
12,425.86	92.22	269.94	7,318.74	-912.00	-4,950.53	4,955.55	1.18	1.18	0.07
12,439.43	92.39	269.95	7,318.19	-912.01	-4,964.09	4,969.11	1.25	1.25	0.07
12,453.00	92.56	269.95	7,317.60	-912.03	-4,977.65	4,982.66	1.25	1.25	0.00
12,466.57	92.71	269.95	7,316.98	-912.04	-4,991.20	4,996.22	1.11	1.11	0.00
12,470.49	92.75	269.95	7,316.79	-912.04	-4,995.12	5,000.13	1.11	1.11	0.00
04-V5000(D-123H)									
12,480.14	92.86	269.95	7,316.32	-912.05	-5,004.76	5,009.77	1.11	1.11	0.00
12,493.71	93.01	269.94	7,315.63	-912.06	-5,018.31	5,023.33	1.11	1.11	-0.07
12,507.29	93.16	269.93	7,314.90	-912.08	-5,031.87	5,036.89	1.11	1.10	-0.07
12,520.86	93.32	269.93	7,314.13	-912.09	-5,045.42	5,050.43	1.18	1.18	0.00
12,534.43	93.48	269.92	7,313.32	-912.11	-5,058.97	5,063.98	1.18	1.18	-0.07
12,548.00	93.63	269.91	7,312.48	-912.13	-5,072.51	5,077.52	1.11	1.11	-0.07
12,561.43	93.75	269.90	7,311.62	-912.15	-5,085.91	5,090.93	0.90	0.89	-0.07
12,574.86	93.86	269.88	7,310.73	-912.18	-5,099.31	5,104.33	0.83	0.82	-0.15



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,588.29	93.96	269.87	7,309.81	-912.21	-5,112.71	5,117.73	0.75	0.74	-0.07	
12,601.71	94.02	269.86	7,308.88	-912.24	-5,126.10	5,131.11	0.45	0.45	-0.07	
12,615.14	94.07	269.85	7,307.93	-912.27	-5,139.49	5,144.51	0.38	0.37	-0.07	
12,628.57	93.55	269.78	7,307.04	-912.32	-5,152.89	5,157.91	3.91	-3.87	-0.52	
12,642.00	92.65	270.01	7,306.31	-912.34	-5,166.30	5,171.32	6.92	-6.70	1.71	
12,655.57	92.45	270.26	7,305.71	-912.31	-5,179.86	5,184.88	2.36	-1.47	1.84	
12,669.14	92.49	270.24	7,305.12	-912.25	-5,193.42	5,198.43	0.33	0.29	-0.15	
12,682.71	92.57	270.22	7,304.52	-912.20	-5,206.98	5,211.99	0.61	0.59	-0.15	
12,696.29	92.67	270.20	7,303.90	-912.15	-5,220.54	5,225.55	0.75	0.74	-0.15	
12,709.86	92.77	270.18	7,303.26	-912.10	-5,234.10	5,239.11	0.75	0.74	-0.15	
12,723.43	92.87	270.15	7,302.59	-912.06	-5,247.65	5,252.66	0.77	0.74	-0.22	
12,737.00	92.97	270.12	7,301.90	-912.03	-5,261.20	5,266.21	0.77	0.74	-0.22	
12,750.57	93.04	270.09	7,301.19	-912.01	-5,274.75	5,279.76	0.56	0.52	-0.22	
12,764.14	93.07	270.05	7,300.47	-911.99	-5,288.30	5,293.31	0.37	0.22	-0.29	
12,777.71	93.07	270.01	7,299.74	-911.98	-5,301.85	5,306.86	0.29	0.00	-0.29	
12,791.29	93.04	269.97	7,299.02	-911.99	-5,315.41	5,320.43	0.37	-0.22	-0.29	
12,804.86	92.92	269.94	7,298.31	-912.00	-5,328.97	5,333.98	0.91	-0.88	-0.22	
12,818.43	92.22	269.85	7,297.70	-912.02	-5,342.52	5,347.53	5.20	-5.16	-0.66	
12,832.00	90.96	269.59	7,297.32	-912.09	-5,356.09	5,361.10	9.48	-9.29	-1.92	
12,845.43	90.11	269.62	7,297.20	-912.18	-5,369.52	5,374.53	6.33	-6.33	0.22	
12,858.86	90.21	269.59	7,297.16	-912.27	-5,382.95	5,387.96	0.78	0.74	-0.22	
12,872.29	90.32	269.57	7,297.10	-912.37	-5,396.37	5,401.39	0.83	0.82	-0.15	
12,885.71	90.43	269.56	7,297.01	-912.47	-5,409.79	5,414.81	0.82	0.82	-0.07	
12,899.14	90.55	269.55	7,296.90	-912.58	-5,423.22	5,428.24	0.90	0.89	-0.07	
12,912.57	90.71	269.55	7,296.75	-912.68	-5,436.65	5,441.66	1.19	1.19	0.00	
12,926.00	90.85	269.57	7,296.57	-912.79	-5,450.08	5,455.09	1.05	1.04	0.15	
12,939.57	90.90	269.61	7,296.36	-912.88	-5,463.65	5,468.66	0.47	0.37	0.29	
12,953.14	90.89	269.67	7,296.15	-912.97	-5,477.22	5,482.23	0.45	-0.07	0.44	
12,966.71	90.86	269.73	7,295.94	-913.04	-5,490.78	5,495.80	0.49	-0.22	0.44	
12,980.29	90.69	269.80	7,295.76	-913.09	-5,504.36	5,509.38	1.35	-1.25	0.52	
12,993.86	90.39	269.88	7,295.63	-913.13	-5,517.93	5,522.95	2.29	-2.21	0.59	
13,007.43	89.62	270.14	7,295.63	-913.13	-5,531.50	5,536.52	5.99	-5.67	1.92	
13,021.00	88.87	270.42	7,295.81	-913.06	-5,545.07	5,550.08	5.90	-5.53	2.06	
13,034.57	88.53	270.78	7,296.11	-912.92	-5,558.64	5,563.65	3.65	-2.51	2.65	
13,048.14	88.48	270.84	7,296.47	-912.73	-5,572.20	5,577.21	0.58	-0.37	0.44	
13,061.71	88.51	270.89	7,296.82	-912.53	-5,585.76	5,590.77	0.43	0.22	0.37	
13,075.29	88.59	270.94	7,297.17	-912.31	-5,599.34	5,604.35	0.69	0.59	0.37	
13,088.86	88.71	271.00	7,297.49	-912.08	-5,612.90	5,617.91	0.99	0.88	0.44	
13,102.43	88.84	271.05	7,297.78	-911.84	-5,626.47	5,631.47	1.03	0.96	0.37	
13,116.00	88.98	271.10	7,298.04	-911.58	-5,640.03	5,645.04	1.10	1.03	0.37	
13,129.43	89.08	271.15	7,298.26	-911.32	-5,653.46	5,658.46	0.83	0.74	0.37	
13,142.86	89.18	271.19	7,298.47	-911.04	-5,666.88	5,671.88	0.80	0.74	0.30	
13,156.29	89.30	271.24	7,298.65	-910.76	-5,680.31	5,685.31	0.97	0.89	0.37	
13,169.71	89.45	271.28	7,298.79	-910.46	-5,693.73	5,698.72	1.16	1.12	0.30	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,183.14	89.60	271.31	7,298.90	-910.16	-5,707.15	5,712.15	1.14	1.12	0.22
13,196.57	89.75	271.33	7,298.98	-909.85	-5,720.58	5,725.57	1.13	1.12	0.15
13,210.00	89.87	271.34	7,299.02	-909.54	-5,734.00	5,738.99	0.90	0.89	0.07
13,223.57	89.96	271.32	7,299.04	-909.22	-5,747.57	5,752.56	0.68	0.66	-0.15
13,237.14	90.01	271.29	7,299.05	-908.91	-5,761.14	5,766.12	0.43	0.37	-0.22
13,250.71	90.06	271.26	7,299.04	-908.61	-5,774.70	5,779.69	0.43	0.37	-0.22
13,264.29	90.13	271.22	7,299.02	-908.32	-5,788.28	5,793.26	0.59	0.52	-0.29
13,277.86	90.20	271.18	7,298.98	-908.03	-5,801.85	5,806.83	0.59	0.52	-0.29
13,291.43	90.30	271.15	7,298.92	-907.76	-5,815.41	5,820.39	0.77	0.74	-0.22
13,305.00	90.40	271.13	7,298.84	-907.49	-5,828.98	5,833.96	0.75	0.74	-0.15
13,318.57	90.51	271.12	7,298.73	-907.22	-5,842.55	5,847.52	0.81	0.81	-0.07
13,332.14	90.61	271.14	7,298.60	-906.95	-5,856.12	5,861.09	0.75	0.74	0.15
13,345.71	90.72	271.15	7,298.44	-906.68	-5,869.68	5,874.65	0.81	0.81	0.07
13,359.29	90.82	271.18	7,298.26	-906.41	-5,883.26	5,888.23	0.77	0.74	0.22
13,372.86	90.93	271.20	7,298.05	-906.13	-5,896.82	5,901.79	0.82	0.81	0.15
13,386.43	91.06	271.22	7,297.81	-905.84	-5,910.39	5,915.36	0.97	0.96	0.15
13,400.00	91.16	271.24	7,297.55	-905.55	-5,923.95	5,928.92	0.75	0.74	0.15
13,413.57	91.24	271.25	7,297.27	-905.25	-5,937.52	5,942.48	0.59	0.59	0.07
13,427.14	91.30	271.25	7,296.96	-904.96	-5,951.08	5,956.04	0.44	0.44	0.00
13,440.71	91.34	271.26	7,296.65	-904.66	-5,964.64	5,969.60	0.30	0.29	0.07
13,454.29	91.38	271.26	7,296.33	-904.36	-5,978.22	5,983.17	0.29	0.29	0.00
13,467.86	91.41	271.26	7,296.00	-904.06	-5,991.78	5,996.73	0.22	0.22	0.00
13,481.43	91.50	271.26	7,295.65	-903.76	-6,005.34	6,010.29	0.66	0.66	0.00
13,495.00	91.63	271.27	7,295.28	-903.47	-6,018.90	6,023.85	0.96	0.96	0.07
13,508.43	91.79	271.29	7,294.88	-903.17	-6,032.32	6,037.27	1.20	1.19	0.15
13,521.86	91.95	271.31	7,294.44	-902.86	-6,045.74	6,050.69	1.20	1.19	0.15
13,535.29	92.12	271.33	7,293.97	-902.55	-6,059.16	6,064.11	1.27	1.27	0.15
13,548.71	92.28	271.35	7,293.45	-902.24	-6,072.57	6,077.51	1.20	1.19	0.15
13,562.14	92.36	271.36	7,292.91	-901.92	-6,085.98	6,090.92	0.60	0.60	0.07
13,575.57	92.45	271.36	7,292.35	-901.60	-6,099.40	6,104.34	0.67	0.67	0.00
13,589.00	92.52	271.35	7,291.76	-901.28	-6,112.81	6,117.75	0.53	0.52	-0.07
13,602.57	92.54	271.31	7,291.16	-900.97	-6,126.36	6,131.30	0.33	0.15	-0.29
13,616.14	92.54	271.25	7,290.56	-900.67	-6,139.92	6,144.85	0.44	0.00	-0.44
13,629.71	92.57	271.19	7,289.96	-900.38	-6,153.47	6,158.40	0.49	0.22	-0.44
13,643.29	92.59	271.12	7,289.35	-900.11	-6,167.03	6,171.96	0.54	0.15	-0.52
13,656.86	92.61	271.05	7,288.73	-899.85	-6,180.59	6,185.52	0.54	0.15	-0.52
13,670.43	92.66	270.99	7,288.11	-899.61	-6,194.14	6,199.07	0.58	0.37	-0.44
13,684.00	92.72	270.94	7,287.47	-899.38	-6,207.69	6,212.62	0.58	0.44	-0.37
13,697.57	92.81	270.92	7,286.82	-899.16	-6,221.25	6,226.17	0.68	0.66	-0.15
13,711.14	92.91	270.90	7,286.14	-898.94	-6,234.80	6,239.72	0.75	0.74	-0.15
13,724.71	93.00	270.90	7,285.44	-898.73	-6,248.35	6,253.27	0.66	0.66	0.00
13,738.29	93.09	270.90	7,284.72	-898.52	-6,261.91	6,266.83	0.66	0.66	0.00
13,751.86	93.17	270.90	7,283.98	-898.30	-6,275.45	6,280.37	0.59	0.59	0.00



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,765.43	93.23	270.90	7,283.22	-898.09	-6,289.00	6,293.92	0.44	0.44	0.00
13,779.00	93.30	270.90	7,282.45	-897.88	-6,302.55	6,307.46	0.52	0.52	0.00
13,792.43	93.36	270.90	7,281.67	-897.67	-6,315.95	6,320.87	0.45	0.45	0.00
13,805.86	93.42	270.89	7,280.87	-897.46	-6,329.36	6,334.27	0.45	0.45	-0.07
13,819.29	93.49	270.88	7,280.06	-897.25	-6,342.76	6,347.68	0.53	0.52	-0.07
13,832.71	93.57	270.88	7,279.24	-897.05	-6,356.16	6,361.07	0.60	0.60	0.00
13,846.14	93.67	270.87	7,278.39	-896.84	-6,369.56	6,374.47	0.75	0.74	-0.07
13,859.57	93.79	270.86	7,277.52	-896.64	-6,382.96	6,387.87	0.90	0.89	-0.07
13,873.00	93.90	270.85	7,276.61	-896.44	-6,396.36	6,401.26	0.82	0.82	-0.07
13,886.57	94.00	270.84	7,275.68	-896.24	-6,409.89	6,414.80	0.74	0.74	-0.07
13,900.14	94.10	270.83	7,274.72	-896.04	-6,423.43	6,428.33	0.74	0.74	-0.07
13,913.71	94.19	270.82	7,273.74	-895.85	-6,436.96	6,441.86	0.67	0.66	-0.07
13,927.29	94.32	270.81	7,272.73	-895.66	-6,450.50	6,455.40	0.96	0.96	-0.07
13,940.86	94.47	270.80	7,271.69	-895.47	-6,464.03	6,468.93	1.11	1.11	-0.07
13,954.43	94.63	270.78	7,270.62	-895.28	-6,477.56	6,482.45	1.19	1.18	-0.15
13,968.00	94.79	270.75	7,269.50	-895.10	-6,491.08	6,495.98	1.20	1.18	-0.22
13,981.57	94.90	270.70	7,268.36	-894.93	-6,504.60	6,509.50	0.89	0.81	-0.37
13,995.14	94.99	270.65	7,267.19	-894.77	-6,518.12	6,523.01	0.76	0.66	-0.37
14,008.71	95.09	270.60	7,265.99	-894.62	-6,531.63	6,536.53	0.82	0.74	-0.37
14,022.29	95.11	270.55	7,264.79	-894.48	-6,545.16	6,550.05	0.40	0.15	-0.37
14,035.86	95.07	270.50	7,263.58	-894.36	-6,558.68	6,563.57	0.47	-0.29	-0.37
14,049.43	94.35	269.82	7,262.47	-894.32	-6,572.20	6,577.09	7.29	-5.31	-5.01
14,063.00	93.17	269.56	7,261.58	-894.40	-6,585.74	6,590.63	8.90	-8.70	-1.92
14,076.57	91.94	269.36	7,260.97	-894.52	-6,599.30	6,604.19	9.18	-9.06	-1.47
14,090.14	91.58	269.28	7,260.56	-894.68	-6,612.86	6,617.75	2.72	-2.65	-0.59
14,103.71	91.70	269.28	7,260.17	-894.86	-6,626.42	6,631.32	0.88	0.88	0.00
14,117.29	91.82	269.29	7,259.75	-895.02	-6,639.99	6,644.89	0.89	0.88	0.07
14,130.86	91.94	269.30	7,259.31	-895.19	-6,653.56	6,658.45	0.89	0.88	0.07
14,144.43	92.06	269.31	7,258.83	-895.36	-6,667.12	6,672.01	0.89	0.88	0.07
14,158.00	92.16	269.32	7,258.33	-895.52	-6,680.68	6,685.57	0.74	0.74	0.07
14,171.43	92.23	269.32	7,257.82	-895.68	-6,694.10	6,698.99	0.52	0.52	0.00
14,184.86	92.31	269.31	7,257.29	-895.84	-6,707.51	6,712.41	0.60	0.60	-0.07
14,198.29	92.42	269.30	7,256.73	-896.00	-6,720.93	6,725.83	0.82	0.82	-0.07
14,211.71	92.55	269.28	7,256.15	-896.17	-6,734.34	6,739.24	0.98	0.97	-0.15
14,225.14	92.69	269.25	7,255.54	-896.34	-6,747.75	6,752.65	1.07	1.04	-0.22
14,238.57	92.84	269.21	7,254.89	-896.52	-6,761.17	6,766.07	1.16	1.12	-0.30
14,252.00	92.97	269.14	7,254.21	-896.71	-6,774.58	6,779.48	1.10	0.97	-0.52
14,265.57	93.02	269.04	7,253.50	-896.93	-6,788.13	6,793.03	0.82	0.37	-0.74
14,279.14	93.07	268.92	7,252.78	-897.17	-6,801.68	6,806.58	0.96	0.37	-0.88
14,292.71	93.05	268.80	7,252.05	-897.44	-6,815.22	6,820.13	0.90	-0.15	-0.88
14,306.29	92.94	268.68	7,251.34	-897.74	-6,828.78	6,833.69	1.20	-0.81	-0.88
14,319.86	92.29	268.62	7,250.73	-898.06	-6,842.33	6,847.24	4.81	-4.79	-0.44
14,333.43	91.07	268.45	7,250.33	-898.40	-6,855.89	6,860.80	9.08	-8.99	-1.25



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,347.00	89.99	267.96	7,250.20	-898.83	-6,869.46	6,874.37	8.74	-7.96	-3.61	
14,360.57	88.75	267.78	7,250.35	-899.33	-6,883.02	6,887.93	9.23	-9.14	-1.33	
14,374.14	88.84	267.78	7,250.64	-899.86	-6,896.57	6,901.49	0.66	0.66	0.00	
14,387.71	88.88	267.78	7,250.91	-900.38	-6,910.13	6,915.05	0.29	0.29	0.00	
14,401.29	88.91	267.79	7,251.17	-900.91	-6,923.70	6,928.62	0.23	0.22	0.07	
14,414.86	88.96	267.80	7,251.42	-901.43	-6,937.25	6,942.18	0.38	0.37	0.07	
14,428.43	89.03	267.81	7,251.66	-901.95	-6,950.81	6,955.74	0.52	0.52	0.07	
14,442.00	89.10	267.81	7,251.88	-902.47	-6,964.37	6,969.30	0.52	0.52	0.00	
14,455.57	89.18	267.80	7,252.08	-902.99	-6,977.93	6,982.86	0.59	0.59	-0.07	
14,469.14	89.26	267.78	7,252.27	-903.51	-6,991.49	6,996.43	0.61	0.59	-0.15	
14,482.71	89.36	267.76	7,252.43	-904.04	-7,005.05	7,009.99	0.75	0.74	-0.15	
14,496.29	89.47	267.73	7,252.57	-904.57	-7,018.62	7,023.56	0.84	0.81	-0.22	
14,509.86	89.60	267.71	7,252.68	-905.11	-7,032.17	7,037.12	0.97	0.96	-0.15	
14,523.43	89.76	267.69	7,252.76	-905.66	-7,045.73	7,050.68	1.19	1.18	-0.15	
14,537.00	89.92	267.68	7,252.79	-906.21	-7,059.29	7,064.24	1.18	1.18	-0.07	
14,550.43	90.04	267.69	7,252.80	-906.75	-7,072.71	7,077.67	0.90	0.89	0.07	
14,563.86	90.13	267.70	7,252.78	-907.29	-7,086.13	7,091.09	0.67	0.67	0.07	
14,577.29	90.22	267.71	7,252.74	-907.83	-7,099.55	7,104.51	0.67	0.67	0.07	
14,590.71	90.32	267.73	7,252.68	-908.36	-7,112.96	7,117.92	0.76	0.75	0.15	
14,604.14	90.43	267.74	7,252.59	-908.89	-7,126.38	7,131.34	0.82	0.82	0.07	
14,617.57	90.54	267.74	7,252.47	-909.42	-7,139.80	7,144.76	0.82	0.82	0.00	
14,631.00	90.63	267.74	7,252.34	-909.95	-7,153.22	7,158.19	0.67	0.67	0.00	
14,644.57	90.72	267.72	7,252.18	-910.49	-7,166.77	7,171.75	0.68	0.66	-0.15	
14,658.14	90.80	267.68	7,252.00	-911.03	-7,180.33	7,185.31	0.66	0.59	-0.29	
14,671.71	90.87	267.64	7,251.80	-911.59	-7,193.89	7,198.87	0.59	0.52	-0.29	
14,685.29	90.93	267.60	7,251.59	-912.15	-7,207.46	7,212.44	0.53	0.44	-0.29	
14,698.86	90.96	267.55	7,251.36	-912.72	-7,221.01	7,226.00	0.43	0.22	-0.37	
14,712.43	90.92	267.51	7,251.14	-913.31	-7,234.57	7,239.56	0.42	-0.29	-0.29	
14,726.00	90.82	267.47	7,250.93	-913.90	-7,248.12	7,253.11	0.79	-0.74	-0.29	
14,739.43	90.76	267.45	7,250.75	-914.50	-7,261.54	7,266.53	0.47	-0.45	-0.15	
14,752.86	90.71	267.43	7,250.58	-915.10	-7,274.95	7,279.95	0.40	-0.37	-0.15	
14,766.29	90.67	267.42	7,250.41	-915.70	-7,288.37	7,293.37	0.31	-0.30	-0.07	
14,779.71	90.68	267.41	7,250.26	-916.31	-7,301.77	7,306.78	0.11	0.07	-0.07	
14,793.14	90.63	267.40	7,250.10	-916.91	-7,315.19	7,320.20	0.38	-0.37	-0.07	
14,806.57	90.53	267.40	7,249.97	-917.52	-7,328.61	7,333.62	0.74	-0.74	0.00	
14,820.00	90.37	267.41	7,249.86	-918.13	-7,342.02	7,347.03	1.19	-1.19	0.07	
14,833.57	90.10	267.42	7,249.81	-918.74	-7,355.58	7,360.59	1.99	-1.99	0.07	
14,847.14	90.61	267.29	7,249.72	-919.37	-7,369.13	7,374.15	3.88	3.76	-0.96	
14,860.71	91.36	267.09	7,249.49	-920.04	-7,382.68	7,387.71	5.72	5.53	-1.47	
14,874.29	91.18	267.12	7,249.19	-920.72	-7,396.24	7,401.27	1.34	-1.33	0.22	
14,887.86	91.09	267.15	7,248.92	-921.40	-7,409.79	7,414.82	0.70	-0.66	0.22	
14,901.43	91.08	267.17	7,248.66	-922.07	-7,423.34	7,428.38	0.16	-0.07	0.15	
14,915.00	91.11	267.19	7,248.40	-922.74	-7,436.90	7,441.93	0.27	0.22	0.15	
14,928.43	91.19	267.19	7,248.13	-923.40	-7,450.31	7,455.35	0.60	0.60	0.00	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,941.86	91.29	267.17	7,247.84	-924.06	-7,463.72	7,468.76	0.76	0.74	-0.15
14,955.29	91.37	267.15	7,247.53	-924.72	-7,477.13	7,482.18	0.61	0.60	-0.15
14,968.71	91.44	267.13	7,247.20	-925.39	-7,490.53	7,495.58	0.54	0.52	-0.15
14,972.88	91.46	267.12	7,247.10	-925.60	-7,494.69	7,499.74	0.50	0.45	-0.22
05-V7500(D-123H)									
14,982.14	91.50	267.10	7,246.86	-926.07	-7,503.94	7,508.99	0.50	0.45	-0.22
14,995.57	91.54	267.07	7,246.50	-926.75	-7,517.34	7,522.40	0.37	0.30	-0.22
15,009.00	91.52	267.05	7,246.14	-927.44	-7,530.75	7,535.81	0.21	-0.15	-0.15
15,022.57	91.34	267.04	7,245.80	-928.14	-7,544.30	7,549.36	1.33	-1.33	-0.07
15,036.14	91.05	267.02	7,245.52	-928.84	-7,557.85	7,562.92	2.14	-2.14	-0.15
15,049.71	90.70	267.01	7,245.31	-929.55	-7,571.40	7,576.47	2.58	-2.58	-0.07
15,063.29	90.28	267.00	7,245.20	-930.26	-7,584.96	7,590.04	3.09	-3.09	-0.07
15,076.86	89.84	266.98	7,245.18	-930.97	-7,598.51	7,603.59	3.25	-3.24	-0.15
15,090.43	89.15	267.73	7,245.30	-931.60	-7,612.06	7,617.15	7.51	-5.08	5.53
15,104.00	88.88	268.81	7,245.54	-932.01	-7,625.63	7,630.71	8.20	-1.99	7.96
15,117.57	88.75	269.52	7,245.82	-932.20	-7,639.19	7,644.28	5.32	-0.96	5.23
15,131.14	88.66	269.45	7,246.12	-932.33	-7,652.76	7,657.85	0.84	-0.66	-0.52
15,144.71	88.63	269.37	7,246.44	-932.47	-7,666.32	7,671.41	0.63	-0.22	-0.59
15,158.29	88.63	269.29	7,246.77	-932.62	-7,679.90	7,684.99	0.59	0.00	-0.59
15,171.86	88.66	269.21	7,247.09	-932.80	-7,693.46	7,698.55	0.63	0.22	-0.59
15,185.43	88.69	269.13	7,247.40	-933.00	-7,707.03	7,712.12	0.63	0.22	-0.59
15,199.00	88.73	269.07	7,247.71	-933.21	-7,720.59	7,725.68	0.53	0.29	-0.44
15,212.43	88.77	269.03	7,248.00	-933.43	-7,734.02	7,739.11	0.42	0.30	-0.30
15,225.86	88.83	268.99	7,248.28	-933.67	-7,747.44	7,752.54	0.54	0.45	-0.30
15,239.29	88.88	268.97	7,248.55	-933.90	-7,760.87	7,765.96	0.40	0.37	-0.15
15,252.71	88.93	268.96	7,248.81	-934.15	-7,774.28	7,779.38	0.38	0.37	-0.07
15,266.14	88.95	268.96	7,249.06	-934.39	-7,787.71	7,792.81	0.15	0.15	0.00
15,279.57	88.94	268.97	7,249.30	-934.63	-7,801.13	7,806.23	0.11	-0.07	0.07
15,293.00	88.92	268.98	7,249.55	-934.87	-7,814.56	7,819.66	0.17	-0.15	0.07
15,306.57	88.90	269.02	7,249.81	-935.11	-7,828.13	7,833.23	0.33	-0.15	0.29
15,320.14	88.89	269.07	7,250.07	-935.34	-7,841.69	7,846.79	0.38	-0.07	0.37
15,333.71	88.93	269.12	7,250.33	-935.55	-7,855.26	7,860.36	0.47	0.29	0.37
15,347.29	89.01	269.16	7,250.58	-935.75	-7,868.83	7,873.94	0.66	0.59	0.29
15,360.86	89.12	269.20	7,250.80	-935.95	-7,882.40	7,887.50	0.86	0.81	0.29
15,374.43	89.72	269.90	7,250.93	-936.06	-7,895.97	7,901.07	6.79	4.42	5.16
15,388.00	90.42	270.69	7,250.92	-935.99	-7,909.54	7,914.64	7.78	5.16	5.82
15,401.43	90.89	271.25	7,250.76	-935.76	-7,922.97	7,928.07	5.44	3.50	4.17
15,414.86	91.01	271.20	7,250.54	-935.47	-7,936.39	7,941.49	0.97	0.89	-0.37
15,428.29	91.18	271.14	7,250.29	-935.20	-7,949.82	7,954.91	1.34	1.27	-0.45
15,441.71	91.35	271.07	7,249.99	-934.94	-7,963.23	7,968.33	1.37	1.27	-0.52
15,455.14	91.50	270.99	7,249.66	-934.70	-7,976.65	7,981.75	1.27	1.12	-0.60
15,468.57	91.61	270.92	7,249.29	-934.47	-7,990.08	7,995.17	0.97	0.82	-0.52
15,482.00	91.67	270.85	7,248.91	-934.27	-8,003.50	8,008.59	0.69	0.45	-0.52



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,495.57	91.66	270.79	7,248.51	-934.07	-8,017.06	8,022.15	0.45	-0.07	-0.44	
15,509.14	91.63	270.74	7,248.12	-933.89	-8,030.63	8,035.72	0.43	-0.22	-0.37	
15,522.71	91.63	270.69	7,247.74	-933.72	-8,044.19	8,049.28	0.37	0.00	-0.37	
15,536.29	91.66	270.64	7,247.35	-933.56	-8,057.76	8,062.85	0.43	0.22	-0.37	
15,549.86	91.70	270.60	7,246.95	-933.42	-8,071.33	8,076.41	0.42	0.29	-0.29	
15,563.43	91.76	270.57	7,246.54	-933.28	-8,084.89	8,089.98	0.49	0.44	-0.22	
15,577.00	91.82	270.54	7,246.12	-933.15	-8,098.45	8,103.54	0.49	0.44	-0.22	
15,590.43	91.90	270.52	7,245.68	-933.02	-8,111.87	8,116.96	0.61	0.60	-0.15	
15,603.86	91.97	270.51	7,245.23	-932.90	-8,125.30	8,130.38	0.53	0.52	-0.07	
15,617.29	92.08	270.50	7,244.75	-932.78	-8,138.72	8,143.80	0.82	0.82	-0.07	
15,630.71	92.19	270.50	7,244.25	-932.67	-8,152.13	8,157.21	0.82	0.82	0.00	
15,644.14	92.31	270.49	7,243.72	-932.55	-8,165.55	8,170.63	0.90	0.89	-0.07	
15,657.57	92.44	270.47	7,243.17	-932.44	-8,178.96	8,184.04	0.98	0.97	-0.15	
15,671.00	92.54	270.45	7,242.58	-932.33	-8,192.38	8,197.46	0.76	0.74	-0.15	
15,684.57	92.60	270.41	7,241.98	-932.23	-8,205.94	8,211.02	0.53	0.44	-0.29	
15,698.14	92.66	270.36	7,241.35	-932.14	-8,219.49	8,224.57	0.58	0.44	-0.37	
15,711.71	92.69	270.31	7,240.72	-932.06	-8,233.05	8,238.12	0.43	0.22	-0.37	
15,725.29	92.66	270.27	7,240.09	-931.99	-8,246.61	8,251.69	0.37	-0.22	-0.29	
15,738.86	92.56	270.23	7,239.47	-931.93	-8,260.17	8,265.24	0.79	-0.74	-0.29	
15,752.43	91.71	270.23	7,238.96	-931.88	-8,273.73	8,278.80	6.26	-6.26	0.00	
15,766.00	90.94	270.23	7,238.65	-931.82	-8,287.29	8,292.37	5.67	-5.67	0.00	
15,779.43	90.97	270.24	7,238.42	-931.77	-8,300.72	8,305.80	0.24	0.22	0.07	
15,792.86	91.05	270.26	7,238.19	-931.71	-8,314.15	8,319.22	0.61	0.60	0.15	
15,806.29	91.14	270.29	7,237.93	-931.64	-8,327.58	8,332.65	0.71	0.67	0.22	
15,819.71	91.22	270.32	7,237.65	-931.57	-8,341.00	8,346.07	0.64	0.60	0.22	
15,833.14	91.27	270.35	7,237.36	-931.49	-8,354.42	8,359.49	0.43	0.37	0.22	
15,846.57	91.28	270.37	7,237.06	-931.41	-8,367.85	8,372.92	0.17	0.07	0.15	
15,860.00	91.25	270.39	7,236.77	-931.32	-8,381.27	8,386.35	0.27	-0.22	0.15	
15,873.57	91.21	270.39	7,236.48	-931.23	-8,394.84	8,399.91	0.29	-0.29	0.00	
15,887.14	91.19	270.38	7,236.19	-931.14	-8,408.41	8,413.48	0.16	-0.15	-0.07	
15,900.71	91.19	270.36	7,235.91	-931.05	-8,421.97	8,427.04	0.15	0.00	-0.15	
15,914.29	91.21	270.35	7,235.63	-930.97	-8,435.55	8,440.62	0.16	0.15	-0.07	
15,927.86	91.21	270.33	7,235.34	-930.88	-8,449.12	8,454.19	0.15	0.00	-0.15	
15,941.43	91.20	270.31	7,235.05	-930.81	-8,462.68	8,467.75	0.16	-0.07	-0.15	
15,955.00	91.21	270.29	7,234.77	-930.74	-8,476.25	8,481.32	0.16	0.07	-0.15	
15,968.43	91.26	270.27	7,234.48	-930.67	-8,489.68	8,494.74	0.40	0.37	-0.15	
15,981.86	91.34	270.26	7,234.17	-930.61	-8,503.10	8,508.17	0.60	0.60	-0.07	
15,995.29	91.41	270.26	7,233.85	-930.55	-8,516.53	8,521.60	0.52	0.52	0.00	
16,008.71	91.46	270.25	7,233.52	-930.49	-8,529.95	8,535.01	0.38	0.37	-0.07	
16,022.14	91.48	270.24	7,233.17	-930.43	-8,543.37	8,548.44	0.17	0.15	-0.07	
16,035.57	91.49	270.24	7,232.82	-930.38	-8,556.80	8,561.86	0.07	0.07	0.00	
16,049.00	91.51	270.23	7,232.47	-930.32	-8,570.22	8,575.28	0.17	0.15	-0.07	
16,062.57	91.54	270.22	7,232.11	-930.27	-8,583.79	8,588.85	0.23	0.22	-0.07	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
16,076.14	91.59	270.21	7,231.74	-930.22	-8,597.35	8,602.41	0.38	0.37	-0.07	
16,089.71	91.66	270.20	7,231.36	-930.17	-8,610.92	8,615.98	0.52	0.52	-0.07	
16,103.29	91.78	270.19	7,230.95	-930.12	-8,624.49	8,629.55	0.89	0.88	-0.07	
16,116.86	91.90	270.17	7,230.51	-930.08	-8,638.05	8,643.11	0.90	0.88	-0.15	
16,130.43	92.03	270.15	7,230.05	-930.04	-8,651.62	8,656.67	0.97	0.96	-0.15	
16,144.00	92.17	270.12	7,229.55	-930.01	-8,665.18	8,670.24	1.06	1.03	-0.22	
16,157.57	92.30	270.08	7,229.02	-929.99	-8,678.74	8,683.79	1.00	0.96	-0.29	
16,171.14	92.40	270.02	7,228.46	-929.97	-8,692.29	8,697.35	0.86	0.74	-0.44	
16,184.71	92.43	269.97	7,227.89	-929.98	-8,705.85	8,710.91	0.43	0.22	-0.37	
16,198.29	92.44	269.91	7,227.32	-929.99	-8,719.42	8,724.48	0.45	0.07	-0.44	
16,211.86	92.39	269.86	7,226.74	-930.02	-8,732.98	8,738.04	0.52	-0.37	-0.37	
16,225.43	92.18	269.83	7,226.20	-930.05	-8,746.54	8,751.60	1.56	-1.55	-0.22	
16,239.00	90.90	270.13	7,225.84	-930.06	-8,760.10	8,765.16	9.69	-9.43	2.21	
16,252.43	90.71	270.12	7,225.65	-930.03	-8,773.53	8,778.59	1.42	-1.41	-0.07	
16,265.86	90.64	270.10	7,225.49	-930.00	-8,786.96	8,792.02	0.54	-0.52	-0.15	
16,279.29	90.62	270.08	7,225.34	-929.98	-8,800.39	8,805.45	0.21	-0.15	-0.15	
16,292.71	90.61	270.06	7,225.20	-929.97	-8,813.81	8,818.86	0.17	-0.07	-0.15	
16,306.14	90.62	270.04	7,225.06	-929.95	-8,827.24	8,832.29	0.17	0.07	-0.15	
16,319.57	90.64	270.02	7,224.91	-929.95	-8,840.67	8,845.72	0.21	0.15	-0.15	
16,333.00	90.67	269.99	7,224.75	-929.95	-8,854.10	8,859.15	0.32	0.22	-0.22	
16,346.57	90.71	269.96	7,224.59	-929.95	-8,867.66	8,872.72	0.37	0.29	-0.22	
16,360.14	90.76	269.92	7,224.42	-929.97	-8,881.23	8,886.29	0.47	0.37	-0.29	
16,373.71	90.84	269.88	7,224.23	-929.99	-8,894.80	8,899.86	0.66	0.59	-0.29	
16,387.29	90.91	269.84	7,224.02	-930.02	-8,908.38	8,913.44	0.59	0.52	-0.29	
16,400.86	90.97	269.80	7,223.80	-930.07	-8,921.95	8,927.00	0.53	0.44	-0.29	
16,414.43	91.02	269.76	7,223.56	-930.12	-8,935.52	8,940.57	0.47	0.37	-0.29	
16,428.00	91.07	269.72	7,223.31	-930.18	-8,949.08	8,954.14	0.47	0.37	-0.29	
16,441.43	91.13	269.70	7,223.06	-930.25	-8,962.51	8,967.57	0.47	0.45	-0.15	
16,454.86	91.19	269.67	7,222.78	-930.32	-8,975.94	8,980.99	0.50	0.45	-0.22	
16,468.29	91.25	269.65	7,222.50	-930.40	-8,989.37	8,994.42	0.47	0.45	-0.15	
16,481.71	91.30	269.63	7,222.20	-930.48	-9,002.78	9,007.84	0.40	0.37	-0.15	
16,495.14	91.32	269.61	7,221.89	-930.57	-9,016.21	9,021.26	0.21	0.15	-0.15	
16,508.57	91.32	269.59	7,221.58	-930.67	-9,029.63	9,034.69	0.15	0.00	-0.15	
16,522.00	91.33	269.57	7,221.27	-930.77	-9,043.06	9,048.12	0.17	0.07	-0.15	
16,535.57	91.35	269.54	7,220.96	-930.87	-9,056.63	9,061.68	0.27	0.15	-0.22	
16,549.14	91.39	269.51	7,220.63	-930.98	-9,070.19	9,075.25	0.37	0.29	-0.22	
16,562.71	91.43	269.48	7,220.30	-931.10	-9,083.76	9,088.82	0.37	0.29	-0.22	
16,576.29	91.46	269.45	7,219.95	-931.23	-9,097.33	9,102.39	0.31	0.22	-0.22	
16,589.86	91.48	269.42	7,219.61	-931.36	-9,110.90	9,115.96	0.27	0.15	-0.22	
16,603.43	91.54	269.40	7,219.25	-931.50	-9,124.46	9,129.52	0.47	0.44	-0.15	
16,617.00	91.67	269.39	7,218.87	-931.65	-9,138.03	9,143.09	0.96	0.96	-0.07	
16,630.43	91.80	269.38	7,218.46	-931.79	-9,151.45	9,156.51	0.97	0.97	-0.07	
16,643.86	91.93	269.39	7,218.02	-931.94	-9,164.87	9,169.93	0.97	0.97	0.07	
16,657.29	92.05	269.40	7,217.56	-932.08	-9,178.29	9,183.35	0.90	0.89	0.07	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
16,670.71	92.15	269.41	7,217.07	-932.22	-9,191.70	9,196.77	0.75	0.75	0.07	
16,684.14	92.25	269.43	7,216.55	-932.35	-9,205.12	9,210.19	0.76	0.74	0.15	
16,697.57	92.31	269.44	7,216.02	-932.48	-9,218.54	9,223.60	0.45	0.45	0.07	
16,711.00	92.33	269.45	7,215.47	-932.61	-9,231.96	9,237.02	0.17	0.15	0.07	
16,724.57	92.36	269.46	7,214.92	-932.74	-9,245.52	9,250.58	0.23	0.22	0.07	
16,738.14	92.38	269.46	7,214.36	-932.87	-9,259.07	9,264.14	0.15	0.15	0.00	
16,751.71	92.43	269.46	7,213.79	-933.00	-9,272.63	9,277.70	0.37	0.37	0.00	
16,765.29	92.50	269.46	7,213.20	-933.13	-9,286.20	9,291.27	0.52	0.52	0.00	
16,778.86	92.59	269.45	7,212.60	-933.26	-9,299.75	9,304.82	0.67	0.66	-0.07	
16,792.43	92.69	269.44	7,211.98	-933.39	-9,313.31	9,318.38	0.74	0.74	-0.07	
16,806.00	92.80	269.41	7,211.33	-933.52	-9,326.86	9,331.93	0.84	0.81	-0.22	
16,819.43	92.88	269.38	7,210.66	-933.66	-9,340.28	9,345.35	0.64	0.60	-0.22	
16,832.86	92.98	269.33	7,209.97	-933.82	-9,353.69	9,358.76	0.83	0.74	-0.37	
16,846.29	93.05	269.28	7,209.27	-933.98	-9,367.10	9,372.17	0.64	0.52	-0.37	
16,859.71	93.02	269.23	7,208.56	-934.15	-9,380.50	9,385.57	0.43	-0.22	-0.37	
16,873.14	92.87	269.16	7,207.87	-934.34	-9,393.91	9,398.98	1.23	-1.12	-0.52	
16,886.57	91.82	269.86	7,207.32	-934.46	-9,407.33	9,412.40	9.39	-7.82	5.21	
16,900.00	90.68	270.45	7,207.02	-934.42	-9,420.75	9,425.83	9.56	-8.49	4.39	
16,913.57	89.46	270.93	7,207.01	-934.26	-9,434.32	9,439.39	9.66	-8.99	3.54	
16,927.14	89.15	270.98	7,207.17	-934.03	-9,447.89	9,452.96	2.31	-2.28	0.37	
16,940.71	89.14	270.83	7,207.38	-933.82	-9,461.46	9,466.52	1.11	-0.07	-1.11	
16,954.29	89.13	270.68	7,207.58	-933.64	-9,475.03	9,480.10	1.11	-0.07	-1.10	
16,967.86	89.09	270.53	7,207.79	-933.49	-9,488.60	9,493.67	1.14	-0.29	-1.11	
16,981.43	89.05	270.38	7,208.01	-933.39	-9,502.17	9,507.23	1.14	-0.29	-1.11	
16,995.00	88.99	270.24	7,208.24	-933.31	-9,515.74	9,520.80	1.12	-0.44	-1.03	
17,008.43	88.91	270.14	7,208.49	-933.27	-9,529.16	9,534.23	0.95	-0.60	-0.74	
17,021.86	88.82	270.05	7,208.76	-933.25	-9,542.59	9,547.66	0.95	-0.67	-0.67	
17,035.29	88.77	269.98	7,209.04	-933.24	-9,556.02	9,561.08	0.64	-0.37	-0.52	
17,048.71	88.77	269.92	7,209.33	-933.25	-9,569.44	9,574.50	0.45	0.00	-0.45	
17,062.14	88.79	269.87	7,209.61	-933.28	-9,582.86	9,587.93	0.40	0.15	-0.37	
17,075.57	88.84	269.83	7,209.89	-933.31	-9,596.29	9,601.35	0.48	0.37	-0.30	
17,089.00	88.94	269.79	7,210.15	-933.36	-9,609.72	9,614.78	0.80	0.74	-0.30	
17,102.57	89.04	269.77	7,210.39	-933.41	-9,623.28	9,628.35	0.75	0.74	-0.15	
17,116.14	89.13	269.76	7,210.61	-933.47	-9,636.85	9,641.92	0.67	0.66	-0.07	
17,129.71	89.21	269.75	7,210.80	-933.52	-9,650.42	9,655.48	0.59	0.59	-0.07	
17,143.29	89.27	269.75	7,210.98	-933.58	-9,664.00	9,669.06	0.44	0.44	0.00	
17,156.86	89.31	269.75	7,211.15	-933.64	-9,677.57	9,682.63	0.29	0.29	0.00	
17,170.43	89.36	269.75	7,211.31	-933.70	-9,691.14	9,696.20	0.37	0.37	0.00	
17,184.00	89.42	269.75	7,211.45	-933.76	-9,704.71	9,709.77	0.44	0.44	0.00	
17,197.43	89.51	269.74	7,211.58	-933.82	-9,718.14	9,723.20	0.67	0.67	-0.07	
17,210.86	89.60	269.73	7,211.68	-933.88	-9,731.57	9,736.63	0.67	0.67	-0.07	
17,224.29	89.68	269.72	7,211.77	-933.95	-9,745.00	9,750.06	0.60	0.60	-0.07	
17,237.71	89.77	269.71	7,211.83	-934.01	-9,758.42	9,763.48	0.67	0.67	-0.07	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
17,251.14	89.84	269.70	7,211.88	-934.08	-9,771.84	9,776.91	0.53	0.52	-0.07	
17,264.57	89.88	269.69	7,211.91	-934.15	-9,785.27	9,790.34	0.31	0.30	-0.07	
17,278.00	89.92	269.67	7,211.93	-934.23	-9,798.70	9,803.77	0.33	0.30	-0.15	
17,291.57	89.96	269.66	7,211.95	-934.31	-9,812.27	9,817.34	0.30	0.29	-0.07	
17,305.14	90.02	269.65	7,211.95	-934.39	-9,825.84	9,830.91	0.45	0.44	-0.07	
17,318.71	90.08	269.63	7,211.94	-934.48	-9,839.41	9,844.48	0.47	0.44	-0.15	
17,332.29	90.14	269.62	7,211.91	-934.56	-9,852.99	9,858.06	0.45	0.44	-0.07	
17,345.86	90.21	269.61	7,211.87	-934.66	-9,866.56	9,871.63	0.52	0.52	-0.07	
17,359.43	90.28	269.59	7,211.81	-934.75	-9,880.13	9,885.20	0.54	0.52	-0.15	
17,373.00	90.37	269.57	7,211.74	-934.85	-9,893.70	9,898.77	0.68	0.66	-0.15	
17,386.43	90.45	269.54	7,211.64	-934.95	-9,907.13	9,912.20	0.64	0.60	-0.22	
17,399.86	90.51	269.51	7,211.53	-935.07	-9,920.56	9,925.63	0.50	0.45	-0.22	
17,413.29	90.57	269.48	7,211.40	-935.18	-9,933.99	9,939.06	0.50	0.45	-0.22	
17,426.71	90.63	269.46	7,211.26	-935.31	-9,947.41	9,952.48	0.47	0.45	-0.15	
17,440.14	90.68	269.43	7,211.11	-935.44	-9,960.84	9,965.91	0.43	0.37	-0.22	
17,453.57	90.74	269.41	7,210.94	-935.57	-9,974.26	9,979.33	0.47	0.45	-0.15	
17,467.00	90.81	269.39	7,210.76	-935.71	-9,987.69	9,992.76	0.54	0.52	-0.15	
17,474.29	90.86	269.38	7,210.65	-935.79	-9,994.98	10,000.05	0.67	0.66	-0.07	
07-V10000(D-123H)										
17,480.57	90.90	269.38	7,210.56	-935.86	-10,001.26	10,006.33	0.67	0.66	-0.07	
17,494.14	91.00	269.38	7,210.33	-936.01	-10,014.83	10,019.90	0.74	0.74	0.00	
17,507.71	91.08	269.38	7,210.08	-936.15	-10,028.39	10,033.47	0.59	0.59	0.00	
17,521.29	91.14	269.38	7,209.82	-936.30	-10,041.97	10,047.04	0.44	0.44	0.00	
17,534.86	91.15	269.38	7,209.55	-936.45	-10,055.54	10,060.61	0.07	0.07	0.00	
17,548.43	91.14	269.37	7,209.28	-936.60	-10,069.10	10,074.18	0.10	-0.07	-0.07	
17,562.00	91.11	269.35	7,209.01	-936.75	-10,082.67	10,087.75	0.27	-0.22	-0.15	
17,575.00	91.08	269.32	7,208.76	-936.90	-10,095.67	10,100.74	0.33	-0.23	-0.23	
17,588.00	91.05	269.28	7,208.52	-937.06	-10,108.66	10,113.74	0.38	-0.23	-0.31	
17,601.00	91.02	269.24	7,208.29	-937.22	-10,121.66	10,126.74	0.38	-0.23	-0.31	
17,614.00	91.02	269.19	7,208.06	-937.40	-10,134.66	10,139.74	0.38	0.00	-0.38	
17,627.00	91.06	269.15	7,207.82	-937.59	-10,147.65	10,152.73	0.44	0.31	-0.31	
17,634.68	91.11	269.12	7,207.67	-937.71	-10,155.33	10,160.41	0.79	0.69	-0.38	
100 FWL: 17634.68' MD, 10160.41' VS, 7207.67' TVD										
17,634.99	91.11	269.12	7,207.67	-937.71	-10,155.64	10,160.72	0.00	0.00	0.00	
05-LTP(D-123H)										
17,640.00	91.15	269.10	7,207.57	-937.79	-10,160.65	10,165.73	0.84	0.74	-0.41	
17,653.00	91.27	269.06	7,207.29	-938.00	-10,173.65	10,178.73	0.97	0.92	-0.31	
Final MWD Survey: 17653.00' MD, 91.27°INC, 269.06°AZ - 06-PBHL(D-123H)										



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Dawson 34 Fed Com 123H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3309+30 @ 3339.00usft
Site:	Dawson 34 Fed State Com	MD Reference:	3309+30 @ 3339.00usft
Well:	Dawson 34 Fed Com 123H	North Reference:	Grid
Wellbore:	123H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
109.00	109.00	Rustler				
361.00	361.00	Top of Salt				
682.07	682.00	Base of Salt				
990.20	990.00	Yates				
2,540.94	2,537.00	Capitan				
3,063.72	3,052.00	DLWR Mnt. Group				
3,871.77	3,848.00	Lower Brushy Canyon				
4,351.02	4,318.00	Bone Spring Lime				
6,500.96	6,432.00	1st Bone Spring SD				
6,732.62	6,660.00	2nd Bone Spring LM				
7,226.14	7,129.00	2nd Bone Spring SD				

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
6,931.00	6,856.03	-769.38	201.17	KOP: 6931.00' MD, -196.87' VS, 6856.03' TVD	
7,906.00	7,466.97	-871.10	-438.51	EOC: 7906.00' MD, 443.37' VS, 7466.97' TVD	
17,634.68	7,207.67	-937.71	-10,155.33	100 FWL: 17634.68' MD, 10160.41' VS, 7207.67' TVD	
17,653.00	7,207.29	-938.00	-10,173.65	Final MWD Survey: 17653.00' MD, 91.27°INC, 269.06°AZ	

Checked By: _____ Approved By: _____ Date: _____

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Action 106056

ACKNOWLEDGMENTS

Operator: COLGATE OPERATING, LLC 300 North Marienfeld Street Midland, TX 79701	OGRID: 371449
	Action Number: 106056
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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CONDITIONS

Action 106056

CONDITIONS

Operator: COLGATE OPERATING, LLC 300 North Marienfeld Street Midland, TX 79701	OGRID: 371449
	Action Number: 106056
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	RT EXPIRES 8/6/2022.	5/13/2022