

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

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 – 46765	⁵ Pool Name WINCHESTER; BONE SPRING, WEST		⁶ Pool Code 97569
⁷ Property Code 371449 327171	⁸ Property Name BIG BURRO 27 STATE COM		²⁹ Well Number 134H

II. ¹⁰ Surface Location

UL or lot no. P	Section 27	Township 19S	Range 28E	Lot Idn	Feet from the 1139	North/South Line South	Feet from the 134	East/West line East	County Eddy
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¹¹ Bottom Hole Location

UL or lot no. M	Section 28	Township 19S	Range 28E	Lot Idn	Feet from the 411	North/South line South	Feet from the 27	East/West line West	County Eddy
¹² Lse Code F	¹³ Producing Method Code		¹⁴ Gas Connection Date 05/01/2022		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 02/28/2022	²² Ready Date 06/01/2022	²³ TD 18,745 MD 8,398 TVD	²⁴ PBTD 18,633 MD 8,408 TVD	²⁵ Perforations 8,907-18,507	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set	
17.5		13.375		205	
12.25		9.625		3,012	
7.875		5.5		18,730	

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: <i>Mikah Thomas</i>		OIL CONSERVATION DIVISION Approved by: John Garcia	
Printed name: Mikah Thomas		Title: Petroleum Engineer	
Title: Sr. Regulatory Analyst		Approval Date: 6/22/2022	
E-mail Address: mthomas@colgateenergy.com		RT Expires 9/1/2022	
Date: 05/15/2022	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 30-015-46765	2 Pool Code 97569	3 Pool Name WINCHESTER; BONE SPRING, WEST
4 Property Code 327171	5 Property Name BIG BURRO 27 STATE COM	6 Well Number 134H
7 OGRID No. 371449	8 Operator Name COLGATE ENERGY LLC	9 Elevation 3339.4'

¹⁰ Surface Location

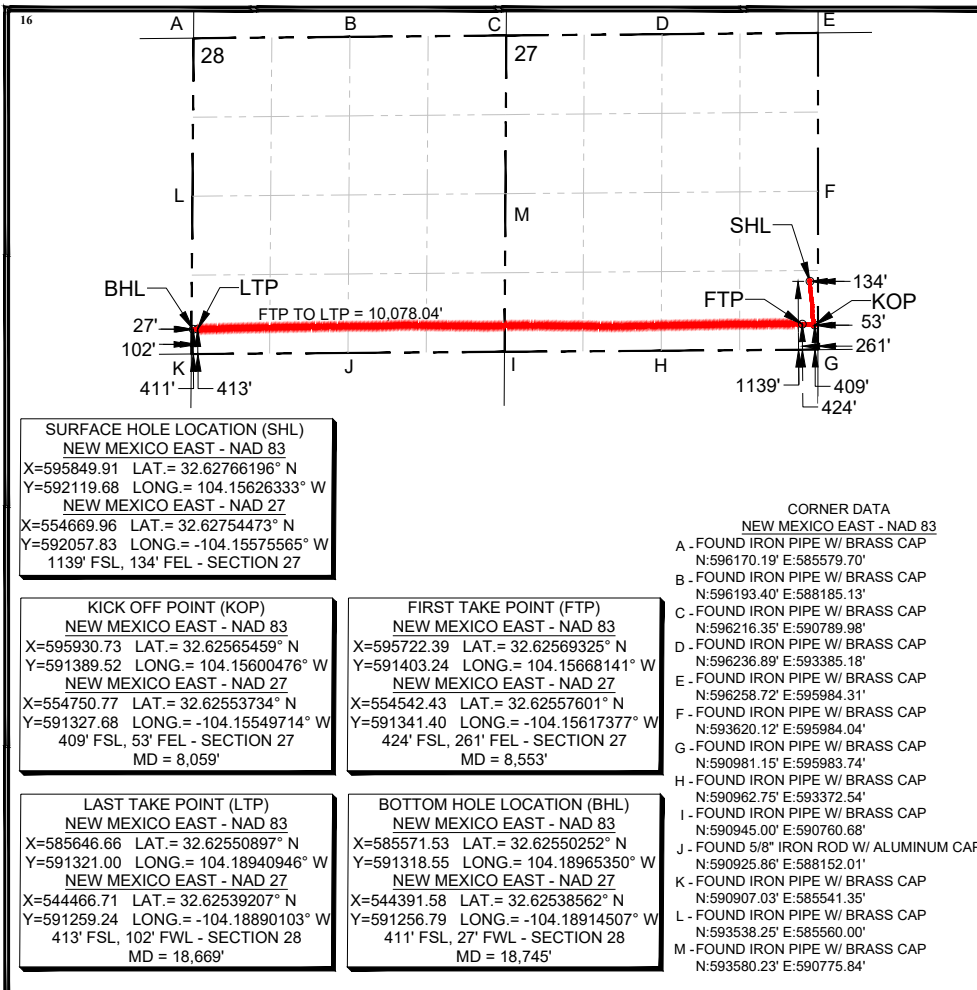
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	27	19-S	28-E		1139'	SOUTH	134'	EAST	EDDY

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
M	28	19-S	28-E		411'	SOUTH	27'	WEST	EDDY

12 Dedicated Acres 320	13 Joint or Infill	14 Consolidation Code	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]
Signature

03.30.2022

Date

Mikah Thomas

Printed Name

mthomas@colgateenergy.com

E-mail Address

18 SURVEYOR CERTIFICATION

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

Date of Survey: *[Signature]*
Signature and Seal of Professional Surveyor:



3/30/2022

Certificate Number



Colgate Energy

Eddy County, NM (N83-NME)

Big Burro 27 State Com

Big Burro 27 State Com 134H

30-015-46765

134H

Design: DRL

Standard Survey Report

15 March, 2022



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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	Big Burro 27 State Com		
Site Position:		Northing:	592,946.93 usft
From:	Map	Easting:	595,464.19 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.62993761
		Longitude:	-104.15751180

Well	Big Burro 27 State Com 134H		
Well Position	+N/-S	0.00 usft	Northing: 592,119.68 usft
	+E/-W	0.00 usft	Easting: 595,849.91 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.10 °	Ground Level:	3,339.00 usft

Wellbore	134H		
Magnetics	Model Name	Sample Date	Declination (°)
	IFR	2/28/2022	7.11
			Dip Angle (°)
			60.35
			Field Strength (nT)
			47,705.90000000

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 (°)
			269.59

Survey Program	Date	3/15/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
14.29	18,686.00	Survey #1_Gordon (134H)	MWD+IFR1+SAG+FDIR (SQ OWSG MWD + IFR1 + Sag + FDIR Correction	
18,745.00	18,745.00	Survey #2_PTB (134H)	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	
14.29	0.05	271.17	14.29	0.00	-0.01	0.01	0.35	0.35	0.00	
28.57	0.11	271.25	28.57	0.00	-0.03	0.03	0.42	0.42	0.56	
42.86	0.16	271.33	42.86	0.00	-0.06	0.06	0.35	0.35	0.56	
57.14	0.22	271.40	57.14	0.00	-0.11	0.11	0.42	0.42	0.49	
71.43	0.27	271.48	71.43	0.00	-0.17	0.17	0.35	0.35	0.56	
85.71	0.32	271.55	85.71	0.01	-0.24	0.24	0.35	0.35	0.49	
100.00	0.38	271.63	100.00	0.01	-0.33	0.33	0.42	0.42	0.56	
114.29	0.43	271.71	114.29	0.01	-0.43	0.43	0.35	0.35	0.56	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
128.57	0.49	271.78	128.57	0.01	-0.54	0.54	0.42	0.42	0.49
138.00	0.52	271.83	138.00	0.02	-0.63	0.63	0.35	0.35	0.58
Rustler									
142.86	0.54	271.86	142.86	0.02	-0.67	0.67	0.35	0.35	0.52
157.14	0.60	271.93	157.14	0.02	-0.81	0.81	0.42	0.42	0.49
171.43	0.65	272.01	171.43	0.03	-0.97	0.97	0.35	0.35	0.56
185.71	0.71	272.08	185.71	0.04	-1.14	1.14	0.42	0.42	0.49
200.00	0.76	272.16	199.99	0.04	-1.32	1.32	0.35	0.35	0.56
214.69	0.75	275.10	214.68	0.05	-1.52	1.52	0.27	-0.07	20.01
229.38	0.75	278.10	229.37	0.08	-1.71	1.71	0.27	0.00	20.42
244.08	0.75	281.14	244.07	0.11	-1.90	1.90	0.27	0.00	20.68
246.01	0.75	281.14	246.00	0.11	-1.92	1.92	0.00	0.00	0.00
Top of Salt									
258.77	0.75	284.19	258.76	0.15	-2.08	2.08	0.31	0.00	23.90
273.46	0.75	287.25	273.45	0.20	-2.27	2.27	0.27	0.00	20.83
288.15	0.75	290.30	288.14	0.26	-2.45	2.45	0.27	0.00	20.76
302.85	0.76	293.31	302.84	0.34	-2.63	2.63	0.28	0.07	20.48
317.54	0.77	296.27	317.52	0.42	-2.81	2.81	0.28	0.07	20.15
332.23	0.78	299.17	332.21	0.51	-2.99	2.98	0.28	0.07	19.74
346.92	0.79	301.99	346.90	0.61	-3.16	3.15	0.27	0.07	19.20
361.62	0.81	304.71	361.60	0.73	-3.33	3.32	0.29	0.14	18.50
376.31	0.82	307.34	376.29	0.85	-3.50	3.49	0.26	0.07	17.90
391.00	0.84	309.87	390.98	0.98	-3.66	3.66	0.28	0.14	17.22
404.14	1.26	331.31	404.11	1.17	-3.81	3.80	4.32	3.20	163.17
417.29	1.77	341.34	417.26	1.49	-3.94	3.93	4.36	3.88	76.27
430.43	2.30	346.81	430.39	1.94	-4.07	4.05	4.29	4.03	41.63
443.57	2.28	346.93	443.52	2.45	-4.19	4.17	0.16	-0.15	0.91
456.71	2.03	346.81	456.65	2.93	-4.30	4.28	1.90	-1.90	-0.91
469.86	1.92	346.68	469.79	3.37	-4.40	4.38	0.84	-0.84	-0.99
483.00	2.47	350.62	482.92	3.87	-4.50	4.47	4.34	4.19	29.98
496.29	2.48	352.44	496.20	4.43	-4.58	4.55	0.60	0.08	13.69
509.57	2.49	354.42	509.47	5.01	-4.65	4.61	0.65	0.08	14.91
522.86	2.50	356.48	522.75	5.58	-4.70	4.66	0.68	0.08	15.50
536.14	2.52	358.57	536.01	6.16	-4.72	4.68	0.71	0.15	15.74
549.43	2.53	0.65	549.29	6.75	-4.73	4.68	0.69	0.08	15.65
562.71	2.55	2.69	562.56	7.34	-4.71	4.66	0.70	0.15	15.36
576.00	2.55	4.66	575.84	7.93	-4.67	4.61	0.66	0.00	14.82
578.17	2.55	4.95	578.00	8.02	-4.66	4.60	0.63	-0.16	13.60
Base of Salt									
589.29	2.53	6.48	589.11	8.51	-4.61	4.55	0.63	-0.15	13.71
602.57	2.50	8.19	602.38	9.09	-4.54	4.47	0.61	-0.23	12.88
615.86	2.04	24.56	615.66	9.59	-4.40	4.33	5.95	-3.46	123.18
629.14	1.82	50.92	628.93	9.94	-4.14	4.07	6.82	-1.66	198.49
642.43	1.84	64.00	642.21	10.17	-3.78	3.71	3.14	0.15	98.42



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
655.71	1.78	65.87	655.49	10.34	-3.40	3.33	0.63	-0.45	14.08
669.00	1.71	67.52	668.77	10.50	-3.03	2.95	0.65	-0.53	12.42
682.38	1.60	68.35	682.15	10.65	-2.67	2.60	0.84	-0.82	6.20
695.75	1.48	68.94	695.51	10.78	-2.34	2.26	0.91	-0.90	4.41
709.13	1.35	69.64	708.89	10.90	-2.03	1.95	0.98	-0.97	5.23
722.50	1.24	78.50	722.25	10.98	-1.74	1.66	1.71	-0.82	66.27
735.88	1.46	112.09	735.63	10.95	-1.44	1.36	6.04	1.64	251.05
749.25	2.08	134.27	748.99	10.71	-1.11	1.03	6.83	4.64	165.89
762.63	2.05	138.38	762.37	10.36	-0.77	0.70	1.13	-0.22	30.72
776.00	1.97	142.23	775.73	10.00	-0.47	0.40	1.17	-0.60	28.80
789.43	1.88	146.08	789.15	9.64	-0.21	0.14	1.17	-0.67	28.67
802.86	1.81	150.36	802.57	9.27	0.02	-0.08	1.15	-0.52	31.87
815.29	1.77	154.52	815.00	8.93	0.20	-0.26	1.09	-0.30	33.45
Yates									
816.29	1.77	154.86	816.00	8.90	0.21	-0.27	1.09	-0.26	34.18
829.71	1.75	159.28	829.41	8.52	0.37	-0.43	1.02	-0.15	32.94
843.14	1.77	163.23	842.83	8.13	0.50	-0.56	0.92	0.15	29.41
856.57	2.63	166.03	856.25	7.63	0.64	-0.69	6.45	6.40	20.85
870.00	3.51	168.75	869.66	6.93	0.79	-0.84	6.64	6.55	20.25
883.14	4.17	170.33	882.77	6.06	0.95	-0.99	5.09	5.02	12.02
896.29	4.39	171.63	895.89	5.10	1.10	-1.14	1.83	1.67	9.89
909.43	4.64	172.83	908.99	4.07	1.24	-1.27	2.03	1.90	9.13
922.57	4.91	173.91	922.08	2.98	1.37	-1.39	2.17	2.05	8.22
935.71	5.16	174.87	935.17	1.84	1.48	-1.50	2.01	1.90	7.31
948.86	5.39	175.74	948.27	0.63	1.58	-1.59	1.85	1.75	6.62
962.00	5.79	175.14	961.34	-0.64	1.68	-1.68	3.08	3.04	-4.57
975.29	6.60	172.62	974.56	-2.07	1.84	-1.82	6.43	6.09	-18.96
988.57	7.45	171.55	987.74	-3.68	2.06	-2.04	6.48	6.40	-8.06
1,001.86	7.59	171.80	1,000.91	-5.40	2.31	-2.28	1.08	1.05	1.88
1,015.14	7.46	172.43	1,014.08	-7.12	2.55	-2.50	1.16	-0.98	4.74
1,028.43	7.31	173.06	1,027.26	-8.82	2.77	-2.71	1.28	-1.13	4.74
1,041.71	7.16	173.67	1,040.43	-10.48	2.96	-2.89	1.27	-1.13	4.59
1,055.00	7.01	174.22	1,053.62	-12.11	3.14	-3.05	1.24	-1.13	4.14
1,068.29	6.90	174.60	1,066.81	-13.71	3.29	-3.19	0.90	-0.83	2.86
1,081.57	6.80	174.90	1,080.00	-15.29	3.44	-3.33	0.80	-0.75	2.26
1,094.86	6.72	175.14	1,093.19	-16.85	3.57	-3.45	0.64	-0.60	1.81
1,108.14	6.65	175.35	1,106.38	-18.39	3.70	-3.57	0.56	-0.53	1.58
1,121.43	6.59	175.54	1,119.59	-19.91	3.82	-3.68	0.48	-0.45	1.43
1,134.71	6.54	175.73	1,132.78	-21.43	3.94	-3.78	0.41	-0.38	1.43
1,148.00	6.50	175.95	1,145.98	-22.93	4.05	-3.88	0.35	-0.30	1.66
1,162.38	6.47	176.26	1,160.27	-24.55	4.16	-3.98	0.32	-0.21	2.16
1,176.77	6.44	176.60	1,174.57	-26.17	4.26	-4.07	0.34	-0.21	2.36
1,191.15	6.43	176.96	1,188.86	-27.78	4.35	-4.15	0.29	-0.07	2.50



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
1,205.54	6.42	177.32	1,203.16	-29.38	4.43	-4.22	0.29	-0.07	2.50	
1,219.92	6.41	177.68	1,217.45	-30.99	4.50	-4.28	0.29	-0.07	2.50	
1,234.31	6.40	178.04	1,231.75	-32.59	4.56	-4.33	0.29	-0.07	2.50	
1,248.69	6.40	178.38	1,246.04	-34.20	4.61	-4.36	0.26	0.00	2.36	
1,263.08	7.15	178.14	1,260.33	-35.89	4.66	-4.40	5.22	5.21	-1.67	
1,277.46	7.39	178.25	1,274.59	-37.71	4.72	-4.45	1.67	1.67	0.76	
1,291.85	7.40	178.50	1,288.86	-39.56	4.77	-4.49	0.23	0.07	1.74	
1,306.23	7.40	178.74	1,303.12	-41.41	4.82	-4.52	0.21	0.00	1.67	
1,320.62	7.41	178.94	1,317.39	-43.27	4.85	-4.54	0.19	0.07	1.39	
1,335.00	7.42	179.10	1,331.65	-45.12	4.89	-4.56	0.16	0.07	1.11	
1,349.23	7.43	179.19	1,345.76	-46.96	4.91	-4.58	0.11	0.07	0.63	
1,363.46	7.45	179.23	1,359.87	-48.81	4.94	-4.59	0.15	0.14	0.28	
1,377.69	7.48	179.24	1,373.98	-50.65	4.96	-4.60	0.21	0.21	0.07	
1,391.92	7.50	179.24	1,388.09	-52.51	4.99	-4.61	0.14	0.14	0.00	
1,406.15	7.52	179.22	1,402.20	-54.37	5.01	-4.62	0.14	0.14	-0.14	
1,420.38	7.55	179.18	1,416.31	-56.23	5.04	-4.64	0.21	0.21	-0.28	
1,434.62	7.57	179.14	1,430.42	-58.11	5.07	-4.65	0.15	0.14	-0.28	
1,448.85	7.60	179.10	1,444.53	-59.99	5.09	-4.67	0.21	0.21	-0.28	
1,463.08	7.62	179.05	1,458.63	-61.87	5.12	-4.68	0.15	0.14	-0.35	
1,477.31	7.65	179.00	1,472.74	-63.76	5.16	-4.70	0.22	0.21	-0.35	
1,491.54	7.67	178.96	1,486.84	-65.66	5.19	-4.72	0.15	0.14	-0.28	
1,505.77	7.69	178.92	1,500.94	-67.56	5.23	-4.74	0.15	0.14	-0.28	
1,520.00	7.71	178.90	1,515.04	-69.46	5.26	-4.77	0.14	0.14	-0.14	
1,534.46	7.72	178.89	1,529.37	-71.40	5.30	-4.79	0.07	0.07	-0.07	
1,548.92	7.73	178.90	1,543.70	-73.35	5.34	-4.81	0.07	0.07	0.07	
1,563.38	7.74	178.92	1,558.03	-75.29	5.37	-4.84	0.07	0.07	0.14	
1,577.85	7.74	178.95	1,572.37	-77.24	5.41	-4.86	0.03	0.00	0.21	
1,592.31	7.75	178.99	1,586.70	-79.19	5.45	-4.88	0.08	0.07	0.28	
1,606.77	7.75	179.03	1,601.02	-81.14	5.48	-4.90	0.04	0.00	0.28	
1,621.23	7.75	179.08	1,615.35	-83.09	5.51	-4.92	0.05	0.00	0.35	
1,635.69	7.75	179.13	1,629.68	-85.04	5.54	-4.93	0.05	0.00	0.35	
1,650.15	7.75	179.20	1,644.01	-86.99	5.57	-4.95	0.07	0.00	0.48	
1,664.62	7.75	179.28	1,658.35	-88.94	5.60	-4.96	0.07	0.00	0.55	
1,679.08	7.75	179.37	1,672.67	-90.89	5.62	-4.97	0.08	0.00	0.62	
1,693.54	7.74	179.49	1,687.00	-92.84	5.64	-4.97	0.13	-0.07	0.83	
1,708.00	7.74	179.65	1,701.33	-94.79	5.65	-4.97	0.15	0.00	1.11	
1,722.23	7.73	179.87	1,715.43	-96.70	5.66	-4.97	0.22	-0.07	1.55	
1,736.46	7.72	180.12	1,729.53	-98.61	5.66	-4.96	0.25	-0.07	1.76	
1,750.69	7.72	180.39	1,743.63	-100.53	5.65	-4.93	0.25	0.00	1.90	
1,764.92	7.71	180.68	1,757.73	-102.44	5.63	-4.90	0.28	-0.07	2.04	
1,779.15	7.70	180.98	1,771.84	-104.34	5.61	-4.86	0.29	-0.07	2.11	
1,793.38	7.68	181.28	1,785.94	-106.25	5.57	-4.81	0.32	-0.14	2.11	
1,807.62	7.67	181.57	1,800.05	-108.15	5.52	-4.75	0.28	-0.07	2.04	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
1,821.85	7.66	175.04	1,814.15	-110.04	5.58	-4.79	6.12	-0.07	-45.89
1,836.08	7.65	175.32	1,828.26	-111.93	5.74	-4.94	0.27	-0.07	1.97
1,850.31	7.63	175.61	1,842.36	-113.82	5.89	-5.07	0.31	-0.14	2.04
1,864.54	7.62	175.90	1,856.46	-115.70	6.03	-5.20	0.28	-0.07	2.04
1,878.77	7.61	176.17	1,870.57	-117.58	6.16	-5.32	0.26	-0.07	1.90
1,893.00	7.60	176.43	1,884.67	-119.46	6.28	-5.42	0.25	-0.07	1.83
1,907.31	7.59	176.64	1,898.86	-121.35	6.39	-5.52	0.21	-0.07	1.47
1,921.62	7.57	176.83	1,913.04	-123.23	6.50	-5.62	0.22	-0.14	1.33
1,935.92	7.56	177.01	1,927.22	-125.11	6.60	-5.71	0.18	-0.07	1.26
1,950.23	7.55	177.17	1,941.40	-126.99	6.70	-5.79	0.16	-0.07	1.12
1,964.54	7.54	177.32	1,955.59	-128.87	6.79	-5.87	0.15	-0.07	1.05
1,978.85	7.53	177.47	1,969.78	-130.74	6.87	-5.94	0.15	-0.07	1.05
1,993.15	7.52	177.61	1,983.95	-132.62	6.95	-6.00	0.15	-0.07	0.98
2,007.46	7.51	177.74	1,998.14	-134.49	7.03	-6.07	0.14	-0.07	0.91
2,021.77	7.51	177.87	2,012.33	-136.35	7.10	-6.13	0.12	0.00	0.91
2,036.08	7.50	177.99	2,026.52	-138.22	7.17	-6.18	0.13	-0.07	0.84
2,050.38	7.50	178.10	2,040.69	-140.09	7.23	-6.23	0.10	0.00	0.77
2,064.69	7.51	178.20	2,054.88	-141.96	7.29	-6.28	0.11	0.07	0.70
2,079.00	7.52	178.29	2,069.07	-143.83	7.35	-6.32	0.11	0.07	0.63
2,091.04	7.55	178.36	2,081.00	-145.40	7.40	-6.36	0.22	0.21	0.56
Capitan									
2,093.38	7.55	178.37	2,083.32	-145.71	7.40	-6.36	0.22	0.21	0.56
2,107.77	7.58	178.43	2,097.59	-147.60	7.46	-6.40	0.22	0.21	0.42
2,122.15	7.62	178.48	2,111.84	-149.51	7.51	-6.44	0.28	0.28	0.35
2,136.54	7.66	178.53	2,126.10	-151.42	7.56	-6.48	0.28	0.28	0.35
2,150.92	7.70	178.57	2,140.35	-153.34	7.61	-6.51	0.28	0.28	0.28
2,165.31	7.75	178.61	2,154.61	-155.27	7.66	-6.54	0.35	0.35	0.28
2,179.69	7.79	178.65	2,168.86	-157.22	7.70	-6.58	0.28	0.28	0.28
2,194.08	7.92	172.60	2,183.12	-159.17	7.85	-6.71	5.81	0.90	-42.04
2,208.46	7.96	172.64	2,197.36	-161.14	8.11	-6.95	0.28	0.28	0.28
2,222.85	7.99	172.68	2,211.61	-163.12	8.36	-7.20	0.21	0.21	0.28
2,237.23	8.03	172.72	2,225.85	-165.11	8.62	-7.44	0.28	0.28	0.28
2,251.62	8.06	172.75	2,240.10	-167.11	8.87	-7.68	0.21	0.21	0.21
2,266.00	8.08	172.77	2,254.34	-169.11	9.13	-7.92	0.14	0.14	0.14
2,280.46	8.09	172.78	2,268.65	-171.13	9.38	-8.16	0.07	0.07	0.07
2,294.92	8.08	172.79	2,282.97	-173.15	9.64	-8.40	0.07	-0.07	0.07
2,309.38	8.08	172.79	2,297.29	-175.16	9.89	-8.64	0.00	0.00	0.00
2,323.85	8.06	172.78	2,311.61	-177.18	10.15	-8.88	0.14	-0.14	-0.07
2,338.31	8.05	172.78	2,325.93	-179.19	10.40	-9.12	0.07	-0.07	0.00
2,352.77	8.03	172.77	2,340.25	-181.20	10.66	-9.36	0.14	-0.14	-0.07
2,367.23	8.01	172.75	2,354.57	-183.20	10.91	-9.60	0.14	-0.14	-0.14
2,381.69	8.00	172.74	2,368.88	-185.19	11.17	-9.84	0.07	-0.07	-0.07
2,396.15	7.98	172.73	2,383.20	-187.19	11.42	-10.08	0.14	-0.14	-0.07
2,410.62	7.96	172.72	2,397.53	-189.18	11.67	-10.32	0.14	-0.14	-0.07



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
2,425.08	7.94	172.71	2,411.86	-191.16	11.93	-10.56	0.14	-0.14	-0.07
2,439.54	7.92	172.70	2,426.18	-193.14	12.18	-10.80	0.14	-0.14	-0.07
2,454.00	7.91	172.71	2,440.50	-195.12	12.43	-11.04	0.07	-0.07	0.07
2,468.31	7.90	172.74	2,454.67	-197.07	12.68	-11.27	0.08	-0.07	0.21
2,482.62	7.90	172.78	2,468.85	-199.02	12.93	-11.51	0.04	0.00	0.28
2,496.92	7.90	172.83	2,483.01	-200.97	13.18	-11.74	0.05	0.00	0.35
2,511.23	7.90	172.88	2,497.19	-202.92	13.42	-11.97	0.05	0.00	0.35
2,525.54	7.90	172.93	2,511.36	-204.87	13.66	-12.20	0.05	0.00	0.35
2,539.85	7.90	172.98	2,525.53	-206.83	13.91	-12.42	0.05	0.00	0.35
2,554.15	7.90	173.02	2,539.70	-208.78	14.14	-12.65	0.04	0.00	0.28
2,568.46	7.91	173.07	2,553.87	-210.73	14.38	-12.87	0.08	0.07	0.35
2,582.77	7.91	173.10	2,568.05	-212.68	14.62	-13.10	0.03	0.00	0.21
2,597.08	7.90	173.14	2,582.22	-214.64	14.86	-13.32	0.08	-0.07	0.28
2,598.88	7.94	167.46	2,584.00	-214.88	14.90	-13.36	43.62	2.15	-316.30
DLWR Mnt. Group									
2,611.38	7.90	173.16	2,596.39	-216.59	15.09	-13.54	6.29	-0.31	45.60
2,625.69	7.90	173.18	2,610.56	-218.54	15.32	-13.76	0.02	0.00	0.14
2,640.00	7.90	173.19	2,624.73	-220.50	15.56	-13.98	0.01	0.00	0.07
2,654.38	7.89	173.19	2,638.98	-222.46	15.79	-14.20	0.07	-0.07	0.00
2,668.77	7.88	173.17	2,653.23	-224.42	16.03	-14.42	0.07	-0.07	-0.14
2,683.15	7.87	173.15	2,667.48	-226.37	16.26	-14.64	0.07	-0.07	-0.14
2,697.54	7.86	173.12	2,681.73	-228.33	16.50	-14.86	0.08	-0.07	-0.21
2,711.92	7.85	173.08	2,695.98	-230.28	16.73	-15.08	0.08	-0.07	-0.28
2,726.31	7.83	173.04	2,710.23	-232.23	16.97	-15.31	0.14	-0.14	-0.28
2,740.69	7.82	172.99	2,724.48	-234.17	17.21	-15.53	0.08	-0.07	-0.35
2,755.08	7.80	172.93	2,738.73	-236.11	17.45	-15.76	0.15	-0.14	-0.42
2,769.46	7.79	172.88	2,752.98	-238.05	17.69	-15.98	0.08	-0.07	-0.35
2,783.85	7.77	172.82	2,767.24	-239.98	17.93	-16.21	0.15	-0.14	-0.42
2,798.23	7.75	172.78	2,781.49	-241.91	18.17	-16.44	0.14	-0.14	-0.28
2,812.62	7.73	172.75	2,795.75	-243.83	18.42	-16.67	0.14	-0.14	-0.21
2,827.00	7.71	172.76	2,809.99	-245.75	18.66	-16.90	0.14	-0.14	0.07
2,840.75	7.70	172.83	2,823.62	-247.57	18.89	-17.12	0.10	-0.07	0.51
2,854.50	7.68	172.92	2,837.25	-249.40	19.12	-17.34	0.17	-0.15	0.65
2,868.25	7.66	173.00	2,850.87	-251.22	19.35	-17.55	0.16	-0.15	0.58
2,882.00	7.64	173.07	2,864.50	-253.04	19.57	-17.76	0.16	-0.15	0.51
2,895.75	7.62	173.08	2,878.13	-254.85	19.79	-17.96	0.15	-0.15	0.07
2,909.50	7.59	173.02	2,891.76	-256.66	20.01	-18.17	0.23	-0.22	-0.44
2,923.25	7.57	172.83	2,905.39	-258.46	20.23	-18.38	0.23	-0.15	-1.38
2,937.00	7.54	172.45	2,919.02	-260.25	20.46	-18.60	0.42	-0.22	-2.76
2,951.50	7.50	171.74	2,933.39	-262.13	20.72	-18.85	0.70	-0.28	-4.90
2,966.00	7.46	170.83	2,947.77	-264.00	21.01	-19.12	0.86	-0.28	-6.28
2,980.50	7.41	169.79	2,962.15	-265.84	21.33	-19.42	0.99	-0.34	-7.17
2,995.00	7.37	168.67	2,976.53	-267.68	21.67	-19.76	1.03	-0.28	-7.72



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
3,009.50	7.33	167.53	2,990.91	-269.49	22.06	-20.13	1.04	-0.28	-7.86	
3,024.00	7.31	167.76	3,005.29	-271.30	22.45	-20.51	0.24	-0.14	1.59	
3,038.50	7.38	172.07	3,019.67	-273.12	22.78	-20.82	3.83	0.48	29.72	
3,053.00	7.60	178.72	3,034.05	-275.00	22.93	-20.96	6.16	1.52	45.86	
3,067.50	7.54	177.63	3,048.42	-276.91	22.99	-21.00	1.07	-0.41	-7.52	
3,082.00	7.49	176.50	3,062.80	-278.80	23.08	-21.09	1.08	-0.34	-7.79	
3,096.50	7.44	175.36	3,077.18	-280.68	23.22	-21.21	1.08	-0.34	-7.86	
3,111.00	7.39	174.26	3,091.55	-282.55	23.39	-21.36	1.04	-0.34	-7.59	
3,125.50	7.35	173.25	3,105.93	-284.40	23.59	-21.55	0.94	-0.28	-6.97	
3,140.00	7.31	172.41	3,120.32	-286.23	23.82	-21.77	0.79	-0.28	-5.79	
3,154.23	7.28	171.91	3,134.43	-288.02	24.07	-22.00	0.49	-0.21	-3.51	
3,168.46	7.26	171.58	3,148.55	-289.80	24.32	-22.25	0.33	-0.14	-2.32	
3,182.69	7.24	171.37	3,162.66	-291.58	24.59	-22.50	0.23	-0.14	-1.48	
3,196.92	7.23	171.25	3,176.78	-293.35	24.86	-22.76	0.13	-0.07	-0.84	
3,211.15	7.22	171.18	3,190.90	-295.12	25.14	-23.02	0.09	-0.07	-0.49	
3,225.38	7.20	171.17	3,205.01	-296.88	25.41	-23.28	0.14	-0.14	-0.07	
3,239.62	7.19	171.19	3,219.14	-298.65	25.68	-23.54	0.07	-0.07	0.14	
3,253.85	7.17	171.26	3,233.26	-300.40	25.95	-23.80	0.15	-0.14	0.49	
3,268.08	7.14	171.35	3,247.38	-302.16	26.22	-24.06	0.23	-0.21	0.63	
3,282.31	7.11	171.49	3,261.50	-303.90	26.49	-24.31	0.24	-0.21	0.98	
3,296.54	7.06	171.68	3,275.62	-305.64	26.74	-24.55	0.39	-0.35	1.34	
3,310.77	7.00	171.92	3,289.74	-307.36	26.99	-24.79	0.47	-0.42	1.69	
3,325.00	6.91	172.26	3,303.87	-309.07	27.23	-25.02	0.70	-0.63	2.39	
3,325.13	6.91	172.26	3,304.00	-309.08	27.23	-25.02	0.00	0.00	0.00	
Lower Brushy Canyon										
3,339.46	6.77	172.63	3,318.23	-310.78	27.45	-25.23	1.02	-0.98	2.58	
3,353.92	6.60	173.09	3,332.59	-312.45	27.66	-25.43	1.23	-1.18	3.18	
3,368.38	6.42	173.62	3,346.95	-314.07	27.85	-25.61	1.31	-1.24	3.67	
3,382.85	6.22	174.20	3,361.34	-315.66	28.02	-25.76	1.45	-1.38	4.01	
3,397.31	6.02	174.84	3,375.71	-317.19	28.17	-25.90	1.46	-1.38	4.43	
3,411.77	5.82	175.52	3,390.10	-318.68	28.30	-26.01	1.47	-1.38	4.70	
3,426.23	5.61	176.24	3,404.49	-320.11	28.40	-26.11	1.53	-1.45	4.98	
3,440.69	5.41	176.98	3,418.88	-321.50	28.48	-26.18	1.47	-1.38	5.12	
3,455.15	5.22	177.73	3,433.28	-322.84	28.54	-26.23	1.40	-1.31	5.19	
3,469.62	5.03	178.45	3,447.69	-324.13	28.59	-26.27	1.39	-1.31	4.98	
3,484.08	4.85	179.08	3,462.09	-325.38	28.61	-26.28	1.30	-1.24	4.36	
3,498.54	4.69	179.54	3,476.50	-326.58	28.63	-26.29	1.14	-1.11	3.18	
3,513.00	4.56	179.70	3,490.92	-327.74	28.64	-26.29	0.90	-0.90	1.11	
3,527.38	4.47	179.13	3,505.25	-328.88	28.65	-26.29	0.70	-0.63	-3.96	
3,541.77	4.42	178.24	3,519.60	-329.99	28.67	-26.31	0.59	-0.35	-6.18	
3,556.15	4.38	177.15	3,533.94	-331.09	28.72	-26.35	0.64	-0.28	-7.58	
3,570.54	4.37	175.94	3,548.29	-332.19	28.78	-26.41	0.65	-0.07	-8.41	
3,584.92	4.36	174.65	3,562.62	-333.28	28.87	-26.49	0.69	-0.07	-8.97	
3,599.31	4.36	173.35	3,576.97	-334.37	28.99	-26.59	0.69	0.00	-9.03	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
3,613.69	4.38	172.08	3,591.31	-335.45	29.13	-26.72	0.69	0.14	-8.83
3,628.08	4.39	170.88	3,605.66	-336.54	29.29	-26.88	0.64	0.07	-8.34
3,642.46	5.24	172.77	3,619.99	-337.74	29.46	-27.04	6.01	5.91	13.14
3,656.85	5.70	172.11	3,634.31	-339.10	29.64	-27.21	3.23	3.20	-4.59
3,671.23	5.73	171.31	3,648.62	-340.51	29.85	-27.41	0.59	0.21	-5.56
3,685.62	5.76	170.58	3,662.94	-341.94	30.07	-27.63	0.55	0.21	-5.07
3,700.00	5.81	170.00	3,677.24	-343.36	30.32	-27.86	0.53	0.35	-4.03
3,714.38	5.85	169.59	3,691.55	-344.80	30.58	-28.11	0.40	0.28	-2.85
3,728.77	5.90	169.33	3,705.86	-346.25	30.85	-28.37	0.39	0.35	-1.81
3,743.15	5.96	169.16	3,720.17	-347.71	31.12	-28.63	0.43	0.42	-1.18
3,757.54	6.01	169.05	3,734.48	-349.18	31.41	-28.91	0.36	0.35	-0.76
3,771.92	6.07	168.98	3,748.78	-350.67	31.69	-29.18	0.42	0.42	-0.49
3,786.31	6.13	168.94	3,763.09	-352.17	31.99	-29.47	0.42	0.42	-0.28
3,800.69	6.19	168.90	3,777.39	-353.68	32.28	-29.75	0.42	0.42	-0.28
3,815.08	6.24	168.86	3,791.69	-355.21	32.58	-30.04	0.35	0.35	-0.28
3,829.46	6.28	168.81	3,805.98	-356.75	32.89	-30.33	0.28	0.28	-0.35
3,843.85	6.32	168.74	3,820.29	-358.30	33.20	-30.63	0.28	0.28	-0.49
3,858.23	6.35	168.63	3,834.58	-359.86	33.51	-30.93	0.23	0.21	-0.76
3,872.62	6.36	168.45	3,848.88	-361.42	33.82	-31.24	0.15	0.07	-1.25
3,887.00	6.44	169.03	3,863.17	-362.99	34.14	-31.54	0.72	0.56	4.03
3,901.38	7.23	174.72	3,877.45	-364.68	34.37	-31.76	7.23	5.49	39.57
3,915.77	7.42	175.81	3,891.72	-366.51	34.52	-31.90	1.64	1.32	7.57
3,930.15	7.30	175.05	3,905.98	-368.35	34.67	-32.03	1.07	-0.83	-5.29
3,935.21	7.25	174.74	3,911.00	-368.98	34.73	-32.09	1.24	-0.98	-6.04
Bone Spring Lime									
3,944.54	7.16	174.17	3,920.26	-370.15	34.84	-32.19	1.24	-0.97	-6.16
3,958.92	7.01	173.19	3,934.53	-371.91	35.04	-32.37	1.34	-1.04	-6.82
3,973.31	6.86	172.15	3,948.81	-373.63	35.26	-32.58	1.36	-1.04	-7.23
3,987.69	6.70	171.06	3,963.09	-375.31	35.51	-32.82	1.43	-1.11	-7.58
4,002.08	6.54	169.93	3,977.39	-376.95	35.78	-33.08	1.43	-1.11	-7.85
4,016.46	6.39	168.80	3,991.68	-378.54	36.08	-33.37	1.37	-1.04	-7.86
4,030.85	6.23	167.69	4,005.98	-380.09	36.40	-33.68	1.40	-1.11	-7.71
4,045.23	6.09	166.67	4,020.28	-381.59	36.74	-34.01	1.24	-0.97	-7.09
4,059.62	5.94	165.81	4,034.59	-383.06	37.10	-34.36	1.22	-1.04	-5.98
4,074.00	5.81	165.24	4,048.89	-384.48	37.47	-34.72	0.99	-0.90	-3.96
4,088.38	5.69	165.39	4,063.20	-385.88	37.83	-35.07	0.84	-0.83	1.04
4,102.77	5.59	165.88	4,077.52	-387.25	38.18	-35.41	0.77	-0.69	3.41
4,117.15	5.50	166.59	4,091.83	-388.60	38.52	-35.73	0.79	-0.63	4.94
4,131.54	5.41	167.45	4,106.16	-389.93	38.82	-36.03	0.84	-0.63	5.98
4,145.92	5.34	168.40	4,120.47	-391.25	39.10	-36.30	0.79	-0.49	6.61
4,160.31	5.27	169.37	4,134.80	-392.55	39.36	-36.55	0.79	-0.49	6.74
4,174.69	5.90	172.66	4,149.11	-393.94	39.58	-36.76	4.91	4.38	22.88
4,189.08	6.86	175.88	4,163.41	-395.53	39.73	-36.90	7.12	6.67	22.38



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
4,203.46	6.80	176.66	4,177.69	-397.23	39.84	-37.00	0.77	-0.42	5.42
4,217.85	6.75	177.48	4,191.98	-398.93	39.93	-37.08	0.76	-0.35	5.70
4,232.23	6.69	178.30	4,206.26	-400.61	39.99	-37.13	0.79	-0.42	5.70
4,246.62	6.63	179.06	4,220.56	-402.28	40.03	-37.15	0.74	-0.42	5.28
4,261.00	6.57	179.69	4,234.84	-403.93	40.05	-37.16	0.65	-0.42	4.38
4,275.38	6.49	179.92	4,249.13	-405.57	40.06	-37.15	0.59	-0.56	1.60
4,289.77	6.41	179.98	4,263.43	-407.18	40.06	-37.14	0.56	-0.56	0.42
4,304.15	6.32	179.93	4,277.72	-408.78	40.06	-37.13	0.63	-0.63	-0.35
4,318.54	6.24	179.80	4,292.02	-410.35	40.06	-37.12	0.56	-0.56	-0.90
4,332.92	6.16	179.61	4,306.32	-411.90	40.07	-37.12	0.57	-0.56	-1.32
4,347.31	6.07	179.38	4,320.63	-413.44	40.08	-37.12	0.65	-0.63	-1.60
4,361.69	5.99	179.13	4,334.93	-414.95	40.10	-37.13	0.59	-0.56	-1.74
4,376.08	5.92	178.86	4,349.24	-416.44	40.13	-37.15	0.52	-0.49	-1.88
4,390.46	5.84	178.59	4,363.54	-417.91	40.16	-37.17	0.59	-0.56	-1.88
4,404.85	5.78	178.33	4,377.86	-419.37	40.20	-37.20	0.46	-0.42	-1.81
4,419.23	5.71	178.09	4,392.17	-420.81	40.25	-37.23	0.51	-0.49	-1.67
4,433.62	5.66	177.90	4,406.49	-422.23	40.30	-37.27	0.37	-0.35	-1.32
4,448.00	5.62	177.80	4,420.80	-423.64	40.35	-37.32	0.29	-0.28	-0.70
4,462.31	5.60	177.87	4,435.04	-425.04	40.40	-37.36	0.15	-0.14	0.49
4,476.62	5.60	178.02	4,449.28	-426.44	40.45	-37.40	0.10	0.00	1.05
4,490.92	5.60	178.21	4,463.51	-427.83	40.50	-37.44	0.13	0.00	1.33
4,505.23	5.61	178.42	4,477.75	-429.23	40.54	-37.47	0.16	0.07	1.47
4,519.54	5.62	178.63	4,491.99	-430.63	40.57	-37.49	0.16	0.07	1.47
4,533.85	5.63	178.83	4,506.24	-432.03	40.61	-37.51	0.15	0.07	1.40
4,548.15	6.26	180.77	4,520.46	-433.51	40.61	-37.51	4.62	4.41	13.57
4,562.46	7.29	182.56	4,534.67	-435.20	40.56	-37.44	7.35	7.20	12.51
4,576.77	7.30	182.67	4,548.86	-437.01	40.48	-37.35	0.12	0.07	0.77
4,591.08	7.31	182.78	4,563.06	-438.83	40.39	-37.25	0.12	0.07	0.77
4,605.38	7.33	182.86	4,577.24	-440.65	40.30	-37.15	0.16	0.14	0.56
4,619.69	7.34	182.91	4,591.43	-442.48	40.21	-37.04	0.08	0.07	0.35
4,634.00	7.34	182.88	4,605.63	-444.30	40.12	-36.94	0.03	0.00	-0.21
4,648.38	7.33	182.75	4,619.89	-446.14	40.03	-36.83	0.13	-0.07	-0.90
4,662.77	7.31	182.54	4,634.16	-447.97	39.94	-36.73	0.23	-0.14	-1.46
4,677.15	7.28	182.29	4,648.42	-449.79	39.86	-36.64	0.30	-0.21	-1.74
4,691.54	7.25	182.00	4,662.70	-451.61	39.80	-36.56	0.33	-0.21	-2.02
4,705.92	7.22	181.68	4,676.96	-453.42	39.74	-36.49	0.35	-0.21	-2.23
4,720.31	7.19	181.35	4,691.24	-455.22	39.69	-36.43	0.36	-0.21	-2.29
4,734.69	7.15	181.00	4,705.51	-457.02	39.65	-36.38	0.41	-0.28	-2.43
4,749.08	7.11	180.64	4,719.79	-458.80	39.63	-36.34	0.42	-0.28	-2.50
4,763.46	7.08	180.28	4,734.06	-460.58	39.61	-36.32	0.37	-0.21	-2.50
4,777.85	7.04	179.90	4,748.34	-462.35	39.61	-36.30	0.43	-0.28	-2.64
4,792.23	7.00	179.53	4,762.61	-464.11	39.62	-36.30	0.42	-0.28	-2.57
4,806.62	6.95	179.15	4,776.89	-465.85	39.64	-36.30	0.47	-0.35	-2.64
4,821.00	6.91	178.78	4,791.17	-467.59	39.67	-36.32	0.42	-0.28	-2.57



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
4,835.38	6.85	178.45	4,805.44	-469.31	39.71	-36.35	0.50	-0.42	-2.29	
4,849.77	6.79	178.13	4,819.73	-471.02	39.76	-36.39	0.49	-0.42	-2.22	
4,864.15	6.73	177.82	4,834.01	-472.71	39.82	-36.44	0.49	-0.42	-2.16	
4,878.54	6.66	177.51	4,848.30	-474.39	39.89	-36.50	0.55	-0.49	-2.15	
4,892.92	6.60	177.21	4,862.59	-476.05	39.97	-36.56	0.48	-0.42	-2.09	
4,907.31	6.54	176.91	4,876.88	-477.69	40.05	-36.63	0.48	-0.42	-2.08	
4,921.69	6.48	176.64	4,891.17	-479.32	40.14	-36.71	0.47	-0.42	-1.88	
4,936.08	6.42	176.38	4,905.47	-480.93	40.24	-36.80	0.46	-0.42	-1.81	
4,950.46	6.36	176.14	4,919.76	-482.53	40.35	-36.89	0.46	-0.42	-1.67	
4,964.85	6.32	175.95	4,934.06	-484.11	40.46	-36.99	0.31	-0.28	-1.32	
4,979.23	6.28	175.82	4,948.36	-485.69	40.57	-37.09	0.30	-0.28	-0.90	
4,993.62	6.25	175.78	4,962.66	-487.25	40.68	-37.20	0.21	-0.21	-0.28	
5,008.00	6.25	175.88	4,976.95	-488.81	40.80	-37.30	0.08	0.00	0.70	
5,022.38	6.28	176.19	4,991.25	-490.38	40.91	-37.40	0.31	0.21	2.16	
5,036.77	6.34	176.61	5,005.55	-491.96	41.01	-37.48	0.53	0.42	2.92	
5,051.15	6.41	177.11	5,019.84	-493.55	41.09	-37.56	0.62	0.49	3.48	
5,065.54	6.49	177.65	5,034.14	-495.17	41.17	-37.62	0.70	0.56	3.75	
5,079.92	6.57	178.20	5,048.43	-496.80	41.23	-37.67	0.71	0.56	3.82	
5,094.31	6.65	178.74	5,062.72	-498.46	41.27	-37.70	0.70	0.56	3.75	
5,108.69	6.74	179.28	5,077.00	-500.13	41.30	-37.72	0.76	0.63	3.76	
5,123.08	6.82	179.79	5,091.29	-501.83	41.31	-37.72	0.70	0.56	3.54	
5,137.46	6.89	180.27	5,105.57	-503.55	41.31	-37.71	0.63	0.49	3.34	
5,151.85	6.95	180.69	5,119.86	-505.28	41.30	-37.68	0.55	0.42	2.92	
5,166.23	6.99	181.04	5,134.13	-507.03	41.27	-37.64	0.41	0.28	2.43	
5,180.62	7.31	181.76	5,148.41	-508.82	41.23	-37.59	2.31	2.22	5.00	
5,195.00	8.32	182.99	5,162.65	-510.77	41.14	-37.49	7.12	7.02	8.55	
5,209.38	9.14	183.65	5,176.87	-512.95	41.02	-37.35	5.74	5.70	4.59	
5,223.77	9.07	183.55	5,191.08	-515.22	40.87	-37.19	0.50	-0.49	-0.69	
5,238.15	8.98	183.39	5,205.28	-517.47	40.74	-37.03	0.65	-0.63	-1.11	
5,252.54	8.89	183.19	5,219.49	-519.71	40.61	-36.89	0.66	-0.63	-1.39	
5,266.92	8.78	182.95	5,233.70	-521.91	40.49	-36.76	0.81	-0.76	-1.67	
5,281.31	8.67	182.69	5,247.93	-524.09	40.38	-36.63	0.81	-0.76	-1.81	
5,295.69	8.55	182.40	5,262.14	-526.24	40.29	-36.52	0.89	-0.83	-2.02	
5,310.08	8.43	182.09	5,276.38	-528.37	40.21	-36.42	0.89	-0.83	-2.15	
5,324.46	8.30	181.76	5,290.60	-530.46	40.14	-36.34	0.96	-0.90	-2.29	
5,338.85	8.16	181.42	5,304.85	-532.52	40.08	-36.27	1.03	-0.97	-2.36	
5,353.23	8.02	181.05	5,319.08	-534.54	40.03	-36.21	1.04	-0.97	-2.57	
5,367.62	7.86	180.68	5,333.33	-536.53	40.00	-36.16	1.17	-1.11	-2.57	
5,382.00	7.69	180.28	5,347.58	-538.47	39.99	-36.13	1.24	-1.18	-2.78	
5,396.38	7.49	179.99	5,361.84	-540.37	39.98	-36.12	1.42	-1.39	-2.02	
5,410.77	7.27	179.69	5,376.11	-542.22	39.99	-36.11	1.55	-1.53	-2.08	
5,425.15	7.05	179.39	5,390.37	-544.01	40.00	-36.11	1.55	-1.53	-2.09	
5,439.54	6.82	179.07	5,404.66	-545.75	40.03	-36.12	1.62	-1.60	-2.22	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
5,453.92	6.59	178.74	5,418.94	-547.43	40.06	-36.14	1.62	-1.60	-2.29
5,468.31	6.36	178.39	5,433.24	-549.05	40.10	-36.17	1.62	-1.60	-2.43
5,482.69	6.13	178.02	5,447.53	-550.61	40.15	-36.21	1.62	-1.60	-2.57
5,497.08	5.90	177.64	5,461.84	-552.12	40.20	-36.25	1.62	-1.60	-2.64
5,511.46	5.68	177.25	5,476.15	-553.57	40.27	-36.31	1.55	-1.53	-2.71
5,525.85	5.47	176.85	5,490.47	-554.96	40.34	-36.37	1.48	-1.46	-2.78
5,540.23	5.28	176.47	5,504.79	-556.31	40.42	-36.44	1.34	-1.32	-2.64
5,554.62	5.12	176.12	5,519.12	-557.61	40.50	-36.51	1.13	-1.11	-2.43
5,569.00	4.99	175.85	5,533.44	-558.88	40.59	-36.59	0.92	-0.90	-1.88
5,583.38	4.91	175.80	5,547.77	-560.11	40.68	-36.67	0.56	-0.56	-0.35
5,597.77	4.88	175.82	5,562.11	-561.34	40.77	-36.75	0.21	-0.21	0.14
5,612.15	4.87	175.88	5,576.44	-562.56	40.86	-36.83	0.08	-0.07	0.42
5,626.54	4.87	175.97	5,590.77	-563.77	40.95	-36.91	0.05	0.00	0.63
5,640.92	4.88	176.06	5,605.10	-564.99	41.03	-36.99	0.09	0.07	0.63
5,655.31	5.42	175.92	5,619.43	-566.28	41.12	-37.07	3.75	3.75	-0.97
5,669.69	6.79	175.98	5,633.73	-567.81	41.23	-37.17	9.53	9.53	0.42
5,684.08	6.99	176.17	5,648.02	-569.53	41.35	-37.27	1.40	1.39	1.32
5,698.46	7.01	176.25	5,662.29	-571.28	41.46	-37.38	0.15	0.14	0.56
5,712.85	7.03	176.34	5,676.57	-573.03	41.58	-37.48	0.16	0.14	0.63
5,727.23	7.04	176.42	5,690.85	-574.79	41.69	-37.58	0.10	0.07	0.56
5,741.62	7.04	176.50	5,705.13	-576.55	41.80	-37.67	0.07	0.00	0.56
5,756.00	7.02	176.54	5,719.40	-578.31	41.91	-37.77	0.14	-0.14	0.28
5,770.15	6.97	176.54	5,733.44	-580.03	42.01	-37.86	0.35	-0.35	0.00
5,784.31	6.89	176.50	5,747.50	-581.73	42.11	-37.95	0.57	-0.56	-0.28
5,798.46	6.79	176.43	5,761.55	-583.42	42.22	-38.04	0.71	-0.71	-0.49
5,812.62	6.69	176.35	5,775.61	-585.07	42.32	-38.13	0.71	-0.71	-0.56
5,826.77	6.58	176.25	5,789.67	-586.71	42.43	-38.23	0.78	-0.78	-0.71
5,840.92	6.47	176.14	5,803.73	-588.31	42.53	-38.32	0.78	-0.78	-0.78
5,855.08	6.35	176.01	5,817.80	-589.89	42.64	-38.42	0.85	-0.85	-0.92
5,869.23	6.23	175.88	5,831.86	-591.43	42.75	-38.52	0.85	-0.85	-0.92
5,883.38	6.11	175.72	5,845.93	-592.95	42.86	-38.62	0.86	-0.85	-1.13
5,897.54	5.99	175.56	5,860.01	-594.44	42.98	-38.72	0.86	-0.85	-1.13
5,911.69	5.87	175.38	5,874.08	-595.90	43.09	-38.83	0.86	-0.85	-1.27
5,925.85	5.76	175.19	5,888.17	-597.33	43.21	-38.93	0.79	-0.78	-1.34
5,940.00	5.64	174.98	5,902.25	-598.73	43.33	-39.04	0.86	-0.85	-1.48
5,954.38	5.53	174.78	5,916.56	-600.12	43.45	-39.16	0.78	-0.76	-1.39
5,968.77	5.43	174.56	5,930.89	-601.49	43.58	-39.28	0.71	-0.69	-1.53
5,983.15	5.33	174.32	5,945.20	-602.83	43.71	-39.40	0.71	-0.70	-1.67
5,997.54	5.23	174.07	5,959.53	-604.15	43.85	-39.52	0.71	-0.69	-1.74
6,011.92	5.13	173.80	5,973.85	-605.44	43.98	-39.65	0.72	-0.70	-1.88
6,026.31	5.73	171.00	5,988.18	-606.79	44.17	-39.82	4.56	4.17	-19.46
6,040.69	7.04	169.17	6,002.47	-608.36	44.44	-40.09	9.22	9.11	-12.73
6,055.08	7.84	169.13	6,016.74	-610.19	44.79	-40.43	5.56	5.56	-0.28



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
6,069.46	7.74	168.88	6,030.99	-612.11	45.17	-40.79	0.73	-0.70	-1.74
6,083.85	7.65	168.61	6,045.25	-614.00	45.54	-41.15	0.67	-0.63	-1.88
6,098.23	7.55	168.30	6,059.50	-615.86	45.92	-41.51	0.75	-0.70	-2.16
6,112.62	7.44	167.94	6,073.77	-617.70	46.31	-41.89	0.83	-0.76	-2.50
6,127.00	7.34	167.49	6,088.03	-619.50	46.70	-42.27	0.80	-0.70	-3.13
6,141.31	7.22	166.96	6,102.22	-621.27	47.10	-42.66	0.96	-0.84	-3.70
6,155.62	7.10	166.35	6,116.42	-623.01	47.52	-43.06	0.99	-0.84	-4.26
6,169.92	6.97	165.67	6,130.61	-624.71	47.94	-43.47	1.08	-0.91	-4.76
6,184.23	6.85	164.94	6,144.82	-626.37	48.38	-43.89	1.04	-0.84	-5.10
6,198.54	6.73	164.17	6,159.03	-628.00	48.83	-44.33	1.05	-0.84	-5.38
6,212.85	6.62	163.38	6,173.24	-629.60	49.29	-44.78	1.00	-0.77	-5.52
6,227.15	6.50	162.56	6,187.45	-631.16	49.77	-45.25	1.06	-0.84	-5.73
6,241.46	6.40	161.74	6,201.67	-632.69	50.26	-45.73	0.95	-0.70	-5.73
6,255.77	6.30	160.94	6,215.89	-634.19	50.77	-46.23	0.93	-0.70	-5.59
6,270.08	6.21	160.16	6,230.12	-635.66	51.29	-46.74	0.86	-0.63	-5.45
6,284.38	6.15	159.46	6,244.33	-637.11	51.82	-47.26	0.67	-0.42	-4.90
6,298.69	6.10	158.87	6,258.56	-638.53	52.36	-47.79	0.56	-0.35	-4.12
6,313.00	6.09	158.49	6,272.79	-639.95	52.91	-48.33	0.29	-0.07	-2.66
6,327.38	6.13	158.38	6,287.09	-641.37	53.48	-48.89	0.29	0.28	-0.76
6,341.77	6.20	158.43	6,301.39	-642.81	54.04	-49.44	0.49	0.49	0.35
6,356.15	6.29	158.58	6,315.69	-644.26	54.62	-50.01	0.64	0.63	1.04
6,370.54	6.40	158.76	6,329.99	-645.75	55.20	-50.57	0.78	0.76	1.25
6,384.92	6.50	158.95	6,344.28	-647.25	55.78	-51.15	0.71	0.70	1.32
6,399.31	6.76	159.62	6,358.57	-648.81	56.37	-51.72	1.89	1.81	4.66
6,413.69	8.12	163.00	6,372.83	-650.57	56.96	-52.30	9.93	9.46	23.50
6,427.00	8.90	165.84	6,386.00	-652.47	57.49	-52.81	6.63	5.83	21.34
1st Bone Spring SD									
6,428.08	8.96	166.05	6,387.06	-652.63	57.53	-52.85	6.63	5.91	19.35
6,442.46	9.05	166.14	6,401.27	-654.82	58.07	-53.38	0.63	0.63	0.63
6,456.85	9.15	166.23	6,415.47	-657.03	58.61	-53.91	0.70	0.69	0.63
6,471.23	9.23	166.31	6,429.67	-659.26	59.16	-54.44	0.56	0.56	0.56
6,485.62	9.30	166.36	6,443.87	-661.51	59.70	-54.97	0.49	0.49	0.35
6,500.00	9.34	166.37	6,458.06	-663.77	60.25	-55.50	0.28	0.28	0.07
6,514.46	9.32	166.31	6,472.33	-666.05	60.80	-56.04	0.15	-0.14	-0.41
6,528.92	9.27	166.19	6,486.60	-668.32	61.36	-56.58	0.37	-0.35	-0.83
6,543.38	9.19	166.02	6,500.87	-670.57	61.92	-57.12	0.58	-0.55	-1.18
6,557.85	9.10	165.84	6,515.16	-672.80	62.48	-57.66	0.65	-0.62	-1.24
6,572.31	8.99	165.64	6,529.44	-675.00	63.04	-58.20	0.79	-0.76	-1.38
6,578.95	8.93	165.54	6,536.00	-676.00	63.29	-58.45	0.86	-0.83	-1.51
2nd Bone Spring LM									
6,586.77	8.87	165.42	6,543.73	-677.18	63.60	-58.75	0.86	-0.83	-1.53
6,601.23	8.73	165.20	6,558.01	-679.32	64.16	-59.30	1.00	-0.97	-1.52
6,615.69	8.59	164.98	6,572.31	-681.42	64.72	-59.84	0.99	-0.97	-1.52
6,630.15	8.44	164.76	6,586.61	-683.49	65.28	-60.38	1.06	-1.04	-1.52



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
6,644.62	8.28	164.55	6,600.93	-685.52	65.83	-60.93	1.13	-1.11	-1.45
6,659.08	8.09	164.36	6,615.24	-687.50	66.39	-61.46	1.33	-1.31	-1.31
6,673.54	7.89	164.21	6,629.56	-689.43	66.93	-61.99	1.39	-1.38	-1.04
6,688.00	7.66	164.11	6,643.89	-691.32	67.46	-62.51	1.59	-1.59	-0.69
6,702.38	7.38	164.23	6,658.14	-693.13	67.98	-63.02	1.95	-1.95	0.83
6,716.77	7.08	164.45	6,672.42	-694.87	68.47	-63.49	2.09	-2.08	1.53
6,731.15	6.76	164.75	6,686.69	-696.54	68.93	-63.94	2.24	-2.23	2.09
6,745.54	6.44	165.11	6,700.99	-698.14	69.36	-64.36	2.24	-2.22	2.50
6,759.92	6.14	165.54	6,715.28	-699.66	69.76	-64.75	2.11	-2.09	2.99
6,774.31	5.76	170.71	6,729.59	-701.12	70.06	-65.05	4.56	-2.64	35.93
6,788.69	5.39	183.04	6,743.91	-702.51	70.14	-65.12	8.70	-2.57	85.74
6,803.08	5.08	198.03	6,758.24	-703.79	69.91	-64.87	9.72	-2.15	104.17
6,817.46	4.83	200.46	6,772.56	-704.96	69.50	-64.46	2.27	-1.74	16.90
6,831.85	4.57	202.26	6,786.90	-706.06	69.07	-64.02	2.08	-1.81	12.51
6,846.23	4.32	204.23	6,801.24	-707.08	68.63	-63.57	2.04	-1.74	13.70
6,860.62	4.09	206.19	6,815.59	-708.04	68.19	-63.12	1.88	-1.60	13.62
6,875.00	3.88	207.84	6,829.94	-708.93	67.73	-62.66	1.66	-1.46	11.47
6,889.46	3.70	207.57	6,844.37	-709.77	67.29	-62.21	1.25	-1.24	-1.87
6,903.92	3.55	206.76	6,858.80	-710.59	66.87	-61.78	1.10	-1.04	-5.60
6,918.38	3.42	205.56	6,873.23	-711.37	66.48	-61.39	1.03	-0.90	-8.30
6,932.85	3.32	204.05	6,887.68	-712.15	66.13	-61.03	0.92	-0.69	-10.44
6,947.31	3.23	202.32	6,902.11	-712.91	65.80	-60.70	0.92	-0.62	-11.96
6,961.77	3.15	200.42	6,916.55	-713.66	65.51	-60.40	0.92	-0.55	-13.14
6,976.23	3.07	198.40	6,930.99	-714.39	65.25	-60.13	0.94	-0.55	-13.97
6,990.69	3.01	196.30	6,945.43	-715.13	65.02	-59.90	0.87	-0.41	-14.52
7,005.15	2.95	194.16	6,959.87	-715.85	64.82	-59.70	0.87	-0.41	-14.80
7,019.62	2.89	192.03	6,974.32	-716.57	64.65	-59.52	0.86	-0.41	-14.72
7,034.08	2.84	189.98	6,988.76	-717.28	64.51	-59.38	0.79	-0.35	-14.18
7,048.54	2.78	188.10	7,003.20	-717.98	64.40	-59.26	0.76	-0.41	-13.00
7,063.00	2.53	176.17	7,017.65	-718.64	64.38	-59.23	4.18	-1.73	-82.50
7,077.38	2.58	151.35	7,032.02	-719.25	64.55	-59.40	7.64	0.35	-172.60
7,091.77	3.09	136.59	7,046.39	-719.81	64.97	-59.82	6.16	3.54	-102.57
7,106.15	3.01	137.09	7,060.75	-720.37	65.50	-60.34	0.59	-0.56	3.48
7,120.54	2.92	137.85	7,075.12	-720.92	66.00	-60.84	0.68	-0.63	5.28
7,134.92	2.84	138.84	7,089.48	-721.46	66.48	-61.32	0.66	-0.56	6.88
7,149.31	2.77	140.02	7,103.85	-721.99	66.94	-61.77	0.63	-0.49	8.20
7,163.69	2.69	141.37	7,118.22	-722.52	67.37	-62.20	0.71	-0.56	9.39
7,178.08	2.61	142.90	7,132.59	-723.05	67.78	-62.60	0.74	-0.56	10.63
7,192.46	2.53	144.59	7,146.96	-723.57	68.16	-62.98	0.77	-0.56	11.75
7,206.85	2.45	146.46	7,161.33	-724.08	68.52	-63.33	0.79	-0.56	13.00
7,221.23	2.37	148.52	7,175.70	-724.59	68.84	-63.65	0.82	-0.56	14.33
7,235.62	2.28	150.80	7,190.08	-725.10	69.14	-63.95	0.90	-0.63	15.84
7,250.00	1.65	158.74	7,204.45	-725.54	69.35	-64.16	4.76	-4.38	55.22



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
7,264.38	0.71	206.08	7,218.83	-725.81	69.39	-64.19	8.90	-6.54	329.21
7,278.77	1.35	265.57	7,233.21	-725.90	69.18	-63.98	8.08	4.45	413.41
7,293.15	1.31	268.06	7,247.59	-725.92	68.85	-63.65	0.49	-0.28	17.32
7,307.54	1.05	270.03	7,261.98	-725.93	68.55	-63.35	1.83	-1.81	13.69
7,321.92	0.78	273.30	7,276.36	-725.92	68.32	-63.12	1.91	-1.88	22.74
7,336.31	0.50	280.20	7,290.75	-725.91	68.16	-62.96	2.01	-1.95	47.95
7,350.69	0.24	303.36	7,305.12	-725.88	68.07	-62.88	2.05	-1.81	161.06
7,356.57	0.17	331.97	7,311.00	-725.86	68.06	-62.86	2.08	-1.19	486.90
2nd Bone Spring SD									
7,365.08	0.20	28.34	7,319.51	-725.84	68.06	-62.86	2.08	0.35	662.07
7,379.46	0.44	60.74	7,333.89	-725.79	68.12	-62.92	2.03	1.67	225.31
7,393.85	0.72	69.01	7,348.28	-725.73	68.25	-63.06	2.03	1.95	57.47
7,408.23	0.99	72.48	7,362.66	-725.66	68.46	-63.26	1.91	1.88	24.13
7,422.62	1.25	74.22	7,377.05	-725.58	68.72	-63.53	1.82	1.81	12.09
7,437.00	1.49	75.09	7,391.43	-725.49	69.06	-63.86	1.68	1.67	6.05
7,451.31	1.30	77.64	7,405.73	-725.41	69.39	-64.20	1.40	-1.33	17.82
7,465.62	1.15	80.57	7,420.04	-725.35	69.70	-64.50	1.14	-1.05	20.48
7,479.92	1.07	85.72	7,434.34	-725.32	69.97	-64.78	0.89	-0.56	36.01
7,494.23	1.11	87.66	7,448.64	-725.30	70.24	-65.05	0.38	0.28	13.56
7,508.54	1.16	89.44	7,462.95	-725.29	70.52	-65.33	0.43	0.35	12.44
7,522.85	1.21	91.07	7,477.26	-725.30	70.82	-65.63	0.42	0.35	11.39
7,537.15	1.26	92.58	7,491.55	-725.31	71.13	-65.94	0.42	0.35	10.56
7,551.46	1.30	93.96	7,505.86	-725.32	71.45	-66.26	0.35	0.28	9.64
7,565.77	1.35	95.24	7,520.17	-725.35	71.78	-66.59	0.41	0.35	8.94
7,580.08	1.40	96.42	7,534.47	-725.38	72.12	-66.93	0.40	0.35	8.25
7,594.38	1.45	97.52	7,548.77	-725.43	72.47	-67.28	0.40	0.35	7.69
7,608.69	1.51	98.53	7,563.07	-725.48	72.84	-67.65	0.46	0.42	7.06
7,623.00	1.56	99.48	7,577.38	-725.54	73.22	-68.02	0.39	0.35	6.64
7,637.38	1.47	101.16	7,591.75	-725.61	73.59	-68.40	0.70	-0.63	11.68
7,651.77	1.39	103.06	7,606.14	-725.68	73.94	-68.75	0.65	-0.56	13.20
7,666.15	1.31	105.16	7,620.51	-725.77	74.27	-69.08	0.65	-0.56	14.60
7,676.64	1.26	106.82	7,631.00	-725.83	74.50	-69.30	0.60	-0.49	15.81
3rd Bone Spring LM									
7,680.54	1.24	107.47	7,634.90	-725.86	74.58	-69.38	0.60	-0.48	16.70
7,694.92	1.17	110.01	7,649.28	-725.95	74.86	-69.67	0.61	-0.49	17.66
7,709.31	1.10	112.78	7,663.66	-726.06	75.13	-69.93	0.62	-0.49	19.25
7,723.69	1.03	115.81	7,678.04	-726.17	75.37	-70.17	0.62	-0.49	21.07
7,738.08	1.05	116.73	7,692.43	-726.28	75.61	-70.41	0.18	0.14	6.39
7,752.46	1.09	116.98	7,706.81	-726.40	75.85	-70.65	0.28	0.28	1.74
7,766.85	1.13	117.21	7,721.19	-726.53	76.10	-70.89	0.28	0.28	1.60
7,781.23	1.17	117.41	7,735.57	-726.66	76.35	-71.15	0.28	0.28	1.39
7,795.62	1.20	117.60	7,749.96	-726.80	76.62	-71.41	0.21	0.21	1.32
7,810.00	1.24	117.78	7,764.34	-726.94	76.89	-71.68	0.28	0.28	1.25
7,824.83	1.17	119.66	7,779.16	-727.09	77.16	-71.96	0.54	-0.47	12.68



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
7,839.67	1.11	121.69	7,794.00	-727.24	77.41	-72.21	0.49	-0.40	13.68
7,854.50	1.05	123.92	7,808.83	-727.39	77.65	-72.44	0.49	-0.40	15.04
7,869.33	0.99	126.44	7,823.65	-727.54	77.86	-72.66	0.51	-0.40	16.99
7,884.17	1.03	127.23	7,838.49	-727.70	78.07	-72.86	0.29	0.27	5.32
7,899.00	1.10	126.39	7,853.32	-727.87	78.29	-73.08	0.48	0.47	-5.66
7,913.83	1.18	125.66	7,868.15	-728.04	78.53	-73.32	0.55	0.54	-4.92
7,928.67	1.26	125.02	7,882.98	-728.22	78.79	-73.58	0.55	0.54	-4.31
7,943.50	1.34	124.44	7,897.81	-728.41	79.07	-73.85	0.55	0.54	-3.91
7,958.33	1.42	123.93	7,912.63	-728.62	79.36	-74.15	0.55	0.54	-3.44
7,973.17	1.49	123.47	7,927.47	-728.82	79.68	-74.46	0.48	0.47	-3.10
7,988.00	1.57	123.05	7,942.29	-729.04	80.01	-74.79	0.54	0.54	-2.83
8,002.29	1.38	129.32	7,956.58	-729.26	80.31	-75.08	1.74	-1.33	43.88
8,016.57	1.20	138.52	7,970.86	-729.48	80.54	-75.32	1.92	-1.26	64.43
8,030.86	1.05	151.01	7,985.14	-729.70	80.70	-75.48	2.01	-1.05	87.40
8,045.14	0.96	166.08	7,999.42	-729.94	80.79	-75.57	1.95	-0.63	105.53
8,059.00	0.94	180.87	8,013.28	-730.16	80.82	-75.59	1.77	-0.15	106.69
KOP: 8059.00' MD, -75.59' VS, 8013.28' TVD									
8,059.43	0.94	181.33	8,013.71	-730.17	80.82	-75.59	1.77	0.09	107.75
8,073.71	1.97	248.82	8,027.99	-730.37	80.59	-75.36	12.81	7.21	472.62
8,088.00	3.88	263.67	8,042.26	-730.52	79.88	-74.65	14.27	13.37	103.92
8,101.43	5.80	264.43	8,055.64	-730.63	78.75	-73.52	14.30	14.30	5.66
8,114.86	7.55	268.14	8,068.98	-730.73	77.19	-71.96	13.41	13.03	27.62
8,128.29	9.26	272.11	8,082.26	-730.72	75.23	-70.00	13.44	12.73	29.56
8,141.71	10.58	275.94	8,095.48	-730.55	72.93	-67.70	10.99	9.84	28.54
8,155.14	11.96	279.81	8,108.65	-730.18	70.33	-65.10	11.71	10.28	28.82
8,168.57	13.75	278.70	8,121.74	-729.71	67.38	-62.16	13.45	13.33	-8.27
8,182.00	15.48	279.01	8,134.74	-729.18	64.03	-58.81	12.89	12.88	2.31
8,195.14	17.14	277.94	8,147.35	-728.64	60.38	-55.17	12.84	12.63	-8.14
8,208.29	18.88	277.26	8,159.86	-728.10	56.35	-51.14	13.33	13.23	-5.17
8,221.43	20.55	278.26	8,172.22	-727.50	51.96	-46.75	12.97	12.71	7.61
8,234.57	21.92	278.74	8,184.47	-726.80	47.25	-42.05	10.51	10.43	3.65
8,247.71	23.14	276.44	8,196.61	-726.14	42.26	-37.07	11.45	9.28	-17.50
8,260.86	24.67	276.68	8,208.63	-725.53	36.97	-31.78	11.66	11.63	1.83
8,269.00	25.55	276.21	8,216.00	-725.14	33.54	-28.35	11.08	10.80	-5.82
100FEL: 8269.00' MD, -28.35' VS, 8216.00' TVD									
8,274.00	26.09	275.93	8,220.50	-724.91	31.37	-26.18	11.08	10.82	-5.52
8,287.43	27.35	275.69	8,232.50	-724.30	25.36	-20.18	9.42	9.38	-1.79
8,300.86	28.49	275.34	8,244.37	-723.70	19.11	-13.93	8.58	8.49	-2.61
8,314.29	29.50	274.93	8,256.11	-723.11	12.62	-7.45	7.66	7.52	-3.05
8,327.71	30.26	274.70	8,267.75	-722.55	5.96	-0.79	5.73	5.66	-1.71
8,341.14	30.86	273.20	8,279.31	-722.08	-0.85	6.02	7.23	4.47	-11.17
8,354.57	32.05	273.03	8,290.77	-721.70	-7.85	13.01	8.89	8.86	-1.27
8,368.00	33.16	272.19	8,302.08	-721.37	-15.08	20.24	8.93	8.27	-6.25
8,381.14	33.82	272.46	8,313.04	-721.08	-22.32	27.48	5.15	5.02	2.05



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
8,394.29	33.55	272.24	8,323.98	-720.78	-29.61	34.77	2.25	-2.05	-1.67	
8,407.43	33.27	272.00	8,334.95	-720.51	-36.84	42.00	2.36	-2.13	-1.83	
8,420.57	33.00	271.77	8,345.95	-720.28	-44.02	49.17	2.27	-2.05	-1.75	
8,433.71	33.82	271.74	8,356.92	-720.06	-51.25	56.40	6.24	6.24	-0.23	
8,446.86	35.01	271.91	8,367.77	-719.82	-58.68	63.83	9.08	9.05	1.29	
8,460.00	36.20	272.24	8,378.45	-719.54	-66.32	71.47	9.17	9.06	2.51	
8,473.29	37.56	272.65	8,389.08	-719.20	-74.29	79.44	10.40	10.23	3.09	
8,486.57	39.02	273.13	8,399.51	-718.79	-82.51	87.65	11.22	10.99	3.61	
8,499.86	40.63	273.41	8,409.71	-718.30	-91.01	96.15	12.19	12.11	2.11	
8,501.56	40.84	273.36	8,411.00	-718.23	-92.11	97.25	12.35	12.19	-3.02	
3rd Bone Spring SD										
8,513.14	42.25	273.02	8,419.67	-717.81	-99.78	104.92	12.35	12.20	-2.92	
8,526.43	43.51	272.78	8,429.41	-717.35	-108.81	113.95	9.56	9.48	-1.81	
8,539.71	44.76	272.68	8,438.94	-716.91	-118.05	123.18	9.43	9.41	-0.75	
8,553.00	46.23	272.97	8,448.25	-716.44	-127.52	132.64	11.17	11.06	2.18	
00-FTP(BB-134H)										
8,566.43	47.78	273.37	8,457.41	-715.90	-137.33	142.44	11.75	11.54	2.98	
01-OVS(BB-134H)										
8,579.86	49.26	273.16	8,466.31	-715.33	-147.37	152.49	11.08	11.02	-1.56	
8,593.29	50.80	273.19	8,474.93	-714.76	-157.65	162.76	11.47	11.47	0.22	
8,606.71	52.24	272.87	8,483.28	-714.20	-168.14	173.24	10.89	10.73	-2.38	
8,620.14	53.41	273.04	8,491.40	-713.65	-178.82	183.93	8.77	8.71	1.27	
8,633.57	55.07	273.17	8,499.25	-713.06	-189.71	194.80	12.39	12.36	0.97	
8,647.00	56.85	273.23	8,506.77	-712.44	-200.82	205.91	13.26	13.25	0.45	
8,660.14	58.64	273.30	8,513.78	-711.80	-211.91	217.00	13.63	13.62	0.53	
8,673.29	60.50	273.32	8,520.44	-711.15	-223.23	228.31	14.15	14.14	0.15	
8,686.43	62.37	272.81	8,526.72	-710.53	-234.75	239.83	14.63	14.23	-3.88	
8,699.57	64.08	272.11	8,532.64	-710.03	-246.47	251.55	13.86	13.01	-5.33	
8,712.71	65.92	272.40	8,538.19	-709.56	-258.37	263.44	14.15	14.00	2.21	
8,725.86	67.54	271.39	8,543.39	-709.16	-270.45	275.51	14.20	12.32	-7.68	
8,739.00	69.17	270.44	8,548.23	-708.97	-282.66	287.72	14.11	12.40	-7.23	
8,752.43	71.07	269.87	8,552.80	-708.93	-295.29	300.35	14.70	14.15	-4.24	
8,765.86	73.04	269.61	8,556.94	-708.99	-308.06	313.13	14.78	14.67	-1.94	
8,779.29	75.01	269.53	8,560.63	-709.09	-320.97	326.04	14.68	14.67	-0.60	
8,792.71	76.96	269.48	8,563.88	-709.20	-333.99	339.06	14.54	14.53	-0.37	
8,806.14	78.23	269.96	8,566.77	-709.27	-347.11	352.17	10.08	9.46	3.57	
8,819.57	80.22	270.25	8,569.28	-709.24	-360.30	365.37	14.97	14.82	2.16	
8,833.00	82.28	270.64	8,571.32	-709.14	-373.57	378.64	15.60	15.34	2.90	
8,846.29	84.36	270.86	8,572.87	-708.97	-386.77	391.83	15.74	15.65	1.66	
8,859.57	86.36	271.26	8,573.94	-708.72	-400.00	405.06	15.36	15.06	3.01	
8,872.86	88.14	271.16	8,574.58	-708.44	-413.27	418.33	13.41	13.39	-0.75	
8,886.14	89.80	270.62	8,574.82	-708.23	-426.55	431.61	13.14	12.50	-4.07	
8,887.00	89.87	270.61	8,574.82	-708.22	-427.41	432.47	8.19	8.05	-1.50	
EOC: 8887.00' MD, 432.47' VS, 8574.82' TVD										



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
8,899.43	90.87	270.42	8,574.74	-708.11	-439.84	444.90	8.19	8.05	-1.50	
8,912.71	90.87	270.25	8,574.54	-708.04	-453.12	458.17	1.28	0.00	-1.28	
8,926.00	90.87	270.09	8,574.34	-708.00	-466.41	471.46	1.20	0.00	-1.20	
8,939.43	90.91	270.01	8,574.13	-707.98	-479.83	484.89	0.67	0.30	-0.60	
8,952.86	90.95	269.98	8,573.91	-707.99	-493.26	498.32	0.37	0.30	-0.22	
8,966.29	90.98	269.98	8,573.69	-707.99	-506.69	511.74	0.22	0.22	0.00	
8,979.71	91.04	269.98	8,573.45	-707.99	-520.11	525.16	0.45	0.45	0.00	
8,993.14	91.09	269.98	8,573.20	-708.00	-533.54	538.59	0.37	0.37	0.00	
9,006.57	91.14	269.96	8,572.94	-708.01	-546.96	552.02	0.40	0.37	-0.15	
9,020.00	91.18	269.90	8,572.67	-708.02	-560.39	565.44	0.54	0.30	-0.45	
9,033.43	91.13	269.76	8,572.40	-708.06	-573.82	578.87	1.11	-0.37	-1.04	
9,046.86	90.99	269.58	8,572.15	-708.14	-587.25	592.30	1.70	-1.04	-1.34	
9,060.29	90.76	269.38	8,571.94	-708.26	-600.67	605.73	2.27	-1.71	-1.49	
9,073.71	90.43	269.19	8,571.80	-708.43	-614.09	619.15	2.84	-2.46	-1.42	
9,087.14	89.96	269.02	8,571.76	-708.64	-627.52	632.57	3.72	-3.50	-1.27	
9,100.57	88.68	268.78	8,571.92	-708.90	-640.95	646.00	9.70	-9.53	-1.79	
9,114.00	87.90	268.63	8,572.32	-709.20	-654.37	659.43	5.91	-5.81	-1.12	
9,127.29	87.81	268.65	8,572.81	-709.52	-667.64	672.70	0.69	-0.68	0.15	
9,140.57	87.84	268.71	8,573.32	-709.82	-680.91	685.97	0.50	0.23	0.45	
9,153.86	87.95	268.80	8,573.81	-710.11	-694.19	699.25	1.07	0.83	0.68	
9,167.14	88.10	268.90	8,574.26	-710.38	-707.46	712.52	1.36	1.13	0.75	
9,180.43	88.36	268.98	8,574.67	-710.62	-720.74	725.81	2.05	1.96	0.60	
9,193.71	90.04	268.82	8,574.86	-710.88	-734.02	739.08	12.71	12.65	-1.20	
9,207.00	91.06	268.93	8,574.73	-711.14	-747.30	752.37	7.72	7.67	0.83	
9,220.29	91.21	268.97	8,574.47	-711.38	-760.59	765.66	1.17	1.13	0.30	
9,233.57	91.34	269.01	8,574.17	-711.62	-773.86	778.93	1.02	0.98	0.30	
9,246.86	91.44	269.04	8,573.85	-711.84	-787.15	792.22	0.79	0.75	0.23	
9,260.14	91.50	269.06	8,573.51	-712.06	-800.42	805.49	0.48	0.45	0.15	
9,273.43	91.55	269.08	8,573.16	-712.28	-813.70	818.78	0.41	0.38	0.15	
9,286.71	91.58	269.08	8,572.79	-712.49	-826.98	832.05	0.23	0.23	0.00	
9,300.00	91.60	269.05	8,572.43	-712.71	-840.26	845.34	0.27	0.15	-0.23	
9,313.14	91.59	269.00	8,572.06	-712.93	-853.39	858.47	0.39	-0.08	-0.38	
9,326.29	91.56	268.93	8,571.70	-713.17	-866.54	871.62	0.58	-0.23	-0.53	
9,339.43	91.54	268.86	8,571.34	-713.42	-879.67	884.75	0.55	-0.15	-0.53	
9,352.57	91.54	268.79	8,570.99	-713.69	-892.80	897.89	0.53	0.00	-0.53	
9,365.71	91.53	268.74	8,570.64	-713.97	-905.93	911.02	0.39	-0.08	-0.38	
9,378.86	91.52	268.72	8,570.29	-714.27	-919.08	924.16	0.17	-0.08	-0.15	
9,392.00	91.51	268.74	8,569.94	-714.56	-932.21	937.30	0.17	-0.08	0.15	
9,405.43	91.49	268.83	8,569.59	-714.84	-945.63	950.72	0.69	-0.15	0.67	
9,418.86	91.50	268.97	8,569.24	-715.10	-959.05	964.15	1.04	0.07	1.04	
9,432.29	91.51	269.13	8,568.89	-715.32	-972.48	977.57	1.19	0.07	1.19	
9,445.71	91.54	269.29	8,568.53	-715.51	-985.89	990.98	1.21	0.22	1.19	
9,459.14	91.60	269.43	8,568.16	-715.66	-999.31	1,004.41	1.13	0.45	1.04	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
9,472.57	92.05	269.90	8,567.73	-715.73	-1,012.74	1,017.83	4.84	3.35	3.50	
9,486.00	92.61	270.51	8,567.19	-715.69	-1,026.16	1,031.25	6.16	4.17	4.54	
9,499.43	92.59	270.52	8,566.58	-715.57	-1,039.57	1,044.67	0.17	-0.15	0.07	
9,512.86	92.60	270.49	8,565.97	-715.45	-1,052.99	1,058.08	0.24	0.07	-0.22	
9,526.29	92.65	270.43	8,565.35	-715.34	-1,066.40	1,071.49	0.58	0.37	-0.45	
9,539.71	92.69	270.37	8,564.73	-715.25	-1,079.81	1,084.90	0.54	0.30	-0.45	
9,553.14	92.73	270.31	8,564.09	-715.17	-1,093.22	1,098.31	0.54	0.30	-0.45	
9,566.57	92.77	270.25	8,563.45	-715.10	-1,106.64	1,111.73	0.54	0.30	-0.45	
9,580.00	92.80	270.21	8,562.80	-715.05	-1,120.05	1,125.14	0.37	0.22	-0.30	
9,593.29	92.81	270.20	8,562.15	-715.00	-1,133.32	1,138.41	0.11	0.08	-0.08	
9,606.57	92.85	270.22	8,561.49	-714.95	-1,146.59	1,151.68	0.34	0.30	0.15	
9,619.86	92.89	270.23	8,560.83	-714.90	-1,159.86	1,164.95	0.31	0.30	0.08	
9,633.14	92.93	270.25	8,560.15	-714.84	-1,173.12	1,178.21	0.34	0.30	0.15	
9,646.43	92.96	270.26	8,559.47	-714.78	-1,186.40	1,191.48	0.24	0.23	0.08	
9,659.71	92.98	270.24	8,558.78	-714.73	-1,199.66	1,204.74	0.21	0.15	-0.15	
9,673.00	92.99	270.19	8,558.09	-714.68	-1,212.93	1,218.01	0.38	0.08	-0.38	
9,686.43	92.91	270.09	8,557.40	-714.64	-1,226.34	1,231.43	0.95	-0.60	-0.74	
9,699.86	92.82	269.95	8,556.73	-714.64	-1,239.76	1,244.84	1.24	-0.67	-1.04	
9,713.29	92.70	269.79	8,556.08	-714.67	-1,253.17	1,258.25	1.49	-0.89	-1.19	
9,726.71	92.58	269.64	8,555.46	-714.74	-1,266.58	1,271.66	1.43	-0.89	-1.12	
9,740.14	92.44	269.50	8,554.87	-714.84	-1,279.99	1,285.08	1.47	-1.04	-1.04	
9,753.57	92.20	269.38	8,554.33	-714.97	-1,293.41	1,298.49	2.00	-1.79	-0.89	
9,767.00	91.36	268.86	8,553.91	-715.17	-1,306.83	1,311.92	7.36	-6.25	-3.87	
9,780.29	90.81	268.50	8,553.66	-715.48	-1,320.12	1,325.20	4.95	-4.14	-2.71	
9,793.57	90.74	268.55	8,553.48	-715.82	-1,333.39	1,338.48	0.65	-0.53	0.38	
9,806.86	90.81	268.63	8,553.30	-716.15	-1,346.68	1,351.77	0.80	0.53	0.60	
9,820.14	90.93	268.73	8,553.10	-716.46	-1,359.95	1,365.04	1.18	0.90	0.75	
9,833.43	91.08	268.82	8,552.87	-716.74	-1,373.24	1,378.33	1.32	1.13	0.68	
9,846.71	91.22	268.90	8,552.60	-717.00	-1,386.51	1,391.61	1.21	1.05	0.60	
9,860.00	91.34	268.96	8,552.30	-717.25	-1,399.80	1,404.89	1.01	0.90	0.45	
9,873.43	91.38	268.96	8,551.98	-717.50	-1,413.22	1,418.32	0.30	0.30	0.00	
9,886.86	91.39	268.93	8,551.66	-717.74	-1,426.64	1,431.74	0.24	0.07	-0.22	
9,900.29	91.41	268.88	8,551.33	-718.00	-1,440.07	1,445.17	0.40	0.15	-0.37	
9,913.71	91.46	268.81	8,551.00	-718.27	-1,453.48	1,458.58	0.64	0.37	-0.52	
9,927.14	91.51	268.74	8,550.65	-718.56	-1,466.90	1,472.01	0.64	0.37	-0.52	
9,940.57	91.53	268.67	8,550.29	-718.86	-1,480.32	1,485.43	0.54	0.15	-0.52	
9,954.00	91.52	268.59	8,549.93	-719.18	-1,493.75	1,498.85	0.60	-0.07	-0.60	
9,967.43	91.48	268.52	8,549.58	-719.52	-1,507.17	1,512.28	0.60	-0.30	-0.52	
9,980.86	91.43	268.45	8,549.24	-719.87	-1,520.59	1,525.70	0.64	-0.37	-0.52	
9,994.29	91.38	268.38	8,548.91	-720.25	-1,534.01	1,539.12	0.64	-0.37	-0.52	
10,007.71	91.33	268.33	8,548.60	-720.63	-1,547.42	1,552.54	0.53	-0.37	-0.37	
10,021.14	91.27	268.28	8,548.29	-721.03	-1,560.84	1,565.96	0.58	-0.45	-0.37	
10,034.57	91.13	268.26	8,548.01	-721.43	-1,574.26	1,579.38	1.05	-1.04	-0.15	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
10,048.00	90.85	268.26	8,547.78	-721.84	-1,587.68	1,592.81	2.08	-2.08	0.00
10,061.43	90.29	268.29	8,547.64	-722.25	-1,601.11	1,606.23	4.18	-4.17	0.22
10,074.86	88.96	268.22	8,547.73	-722.65	-1,614.53	1,619.66	9.92	-9.90	-0.52
10,088.29	88.57	268.32	8,548.02	-723.06	-1,627.95	1,633.08	3.00	-2.90	0.74
10,101.71	88.43	268.44	8,548.37	-723.44	-1,641.36	1,646.49	1.37	-1.04	0.89
10,115.14	88.38	268.58	8,548.75	-723.79	-1,654.78	1,659.92	1.11	-0.37	1.04
10,128.57	88.35	268.71	8,549.13	-724.11	-1,668.20	1,673.34	0.99	-0.22	0.97
10,142.00	88.33	268.85	8,549.52	-724.39	-1,681.62	1,686.76	1.05	-0.15	1.04
10,155.29	88.29	268.97	8,549.91	-724.64	-1,694.90	1,700.05	0.95	-0.30	0.90
10,168.57	88.26	269.08	8,550.31	-724.87	-1,708.18	1,713.32	0.86	-0.23	0.83
10,181.86	88.22	269.18	8,550.72	-725.07	-1,721.46	1,726.60	0.81	-0.30	0.75
10,195.14	88.22	269.26	8,551.13	-725.25	-1,734.73	1,739.88	0.60	0.00	0.60
10,208.43	88.25	269.33	8,551.54	-725.42	-1,748.01	1,753.16	0.57	0.23	0.53
10,221.71	88.71	269.48	8,551.89	-725.55	-1,761.29	1,766.43	3.64	3.46	1.13
10,235.00	89.57	269.74	8,552.09	-725.64	-1,774.58	1,779.72	6.76	6.47	1.96
10,248.29	89.65	269.69	8,552.18	-725.71	-1,787.86	1,793.01	0.71	0.60	-0.38
10,261.57	89.75	269.62	8,552.25	-725.79	-1,801.14	1,806.29	0.92	0.75	-0.53
10,274.86	89.83	269.53	8,552.30	-725.89	-1,814.43	1,819.58	0.91	0.60	-0.68
10,288.14	89.91	269.43	8,552.33	-726.01	-1,827.71	1,832.86	0.96	0.60	-0.75
10,301.43	90.00	269.33	8,552.34	-726.15	-1,841.00	1,846.15	1.01	0.68	-0.75
10,314.71	90.13	269.24	8,552.33	-726.32	-1,854.28	1,859.43	1.19	0.98	-0.68
10,328.00	91.40	269.41	8,552.15	-726.48	-1,867.57	1,872.72	9.64	9.56	1.28
10,341.29	92.34	269.45	8,551.71	-726.61	-1,880.85	1,886.00	7.08	7.07	0.30
10,354.57	92.40	269.37	8,551.17	-726.74	-1,894.12	1,899.27	0.75	0.45	-0.60
10,367.86	92.42	269.29	8,550.61	-726.90	-1,907.40	1,912.55	0.62	0.15	-0.60
10,381.14	92.43	269.21	8,550.04	-727.07	-1,920.66	1,925.82	0.61	0.08	-0.60
10,394.43	92.41	269.13	8,549.48	-727.27	-1,933.94	1,939.10	0.62	-0.15	-0.60
10,407.71	92.38	269.05	8,548.93	-727.48	-1,947.21	1,952.36	0.64	-0.23	-0.60
10,421.00	92.34	268.98	8,548.38	-727.70	-1,960.48	1,965.64	0.61	-0.30	-0.53
10,434.29	92.34	268.90	8,547.84	-727.95	-1,973.76	1,978.92	0.60	0.00	-0.60
10,447.57	92.37	268.84	8,547.29	-728.21	-1,987.03	1,992.19	0.50	0.23	-0.45
10,460.86	92.42	268.77	8,546.74	-728.49	-2,000.30	2,005.46	0.65	0.38	-0.53
10,474.14	92.46	268.72	8,546.17	-728.78	-2,013.57	2,018.73	0.48	0.30	-0.38
10,487.43	92.51	268.67	8,545.60	-729.08	-2,026.84	2,032.01	0.53	0.38	-0.38
10,500.71	92.54	268.63	8,545.01	-729.39	-2,040.10	2,045.27	0.38	0.23	-0.30
10,514.00	92.58	268.60	8,544.42	-729.72	-2,053.38	2,058.55	0.38	0.30	-0.23
10,527.43	92.65	268.59	8,543.80	-730.04	-2,066.79	2,071.96	0.53	0.52	-0.07
10,540.86	92.71	268.60	8,543.18	-730.37	-2,080.20	2,085.37	0.45	0.45	0.07
10,554.29	92.76	268.62	8,542.54	-730.70	-2,093.61	2,098.79	0.40	0.37	0.15
10,567.71	92.81	268.64	8,541.88	-731.02	-2,107.01	2,112.19	0.40	0.37	0.15
10,581.14	92.90	268.66	8,541.22	-731.34	-2,120.42	2,125.60	0.69	0.67	0.15
10,594.57	92.94	268.73	8,540.53	-731.64	-2,133.83	2,139.01	0.60	0.30	0.52
10,608.00	92.48	269.09	8,539.90	-731.90	-2,147.24	2,152.43	4.35	-3.43	2.68
10,621.29	92.54	269.12	8,539.31	-732.10	-2,160.52	2,165.70	0.50	0.45	0.23



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
10,634.57	92.55	269.15	8,538.72	-732.30	-2,173.78	2,178.97	0.24	0.08	0.23	
10,647.86	92.54	269.17	8,538.13	-732.50	-2,187.06	2,192.24	0.17	-0.08	0.15	
10,661.14	92.53	269.20	8,537.55	-732.69	-2,200.33	2,205.51	0.24	-0.08	0.23	
10,674.43	92.51	269.21	8,536.96	-732.87	-2,213.60	2,218.79	0.17	-0.15	0.08	
10,687.71	92.45	269.22	8,536.39	-733.05	-2,226.87	2,232.06	0.46	-0.45	0.08	
10,701.00	92.36	269.21	8,535.83	-733.23	-2,240.14	2,245.33	0.68	-0.68	-0.08	
10,714.43	91.75	269.83	8,535.35	-733.35	-2,253.57	2,258.76	6.47	-4.54	4.62	
10,727.86	91.75	269.78	8,534.94	-733.39	-2,266.99	2,272.18	0.37	0.00	-0.37	
10,741.29	91.76	269.72	8,534.53	-733.45	-2,280.41	2,285.60	0.45	0.07	-0.45	
10,754.71	91.78	269.65	8,534.11	-733.53	-2,293.83	2,299.02	0.54	0.15	-0.52	
10,768.14	91.81	269.56	8,533.69	-733.62	-2,307.25	2,312.44	0.71	0.22	-0.67	
10,781.57	91.85	269.48	8,533.26	-733.73	-2,320.67	2,325.86	0.67	0.30	-0.60	
10,795.00	91.91	269.39	8,532.82	-733.86	-2,334.09	2,339.29	0.81	0.45	-0.67	
10,808.43	91.94	269.30	8,532.37	-734.02	-2,347.52	2,352.71	0.71	0.22	-0.67	
10,821.86	91.97	269.20	8,531.91	-734.19	-2,360.94	2,366.13	0.78	0.22	-0.74	
10,835.29	91.99	269.11	8,531.45	-734.39	-2,374.36	2,379.55	0.69	0.15	-0.67	
10,848.71	92.03	269.02	8,530.98	-734.61	-2,387.77	2,392.96	0.73	0.30	-0.67	
10,862.14	92.10	268.93	8,530.49	-734.85	-2,401.19	2,406.38	0.85	0.52	-0.67	
10,875.57	92.17	268.84	8,529.99	-735.11	-2,414.60	2,419.80	0.85	0.52	-0.67	
10,889.00	92.22	268.76	8,529.48	-735.39	-2,428.02	2,433.22	0.70	0.37	-0.60	
10,902.43	92.25	268.70	8,528.96	-735.69	-2,441.44	2,446.64	0.50	0.22	-0.45	
10,915.86	92.26	268.64	8,528.43	-736.00	-2,454.85	2,460.06	0.45	0.07	-0.45	
10,929.29	92.28	268.59	8,527.90	-736.32	-2,468.27	2,473.47	0.40	0.15	-0.37	
10,942.71	92.29	268.53	8,527.36	-736.66	-2,481.67	2,486.88	0.45	0.07	-0.45	
10,955.77	92.23	268.48	8,526.85	-737.00	-2,494.72	2,499.93	0.58	-0.45	-0.37	
02-2500VS(BB-134H)										
10,956.14	92.23	268.48	8,526.83	-737.01	-2,495.09	2,500.30	0.58	-0.45	-0.37	
10,969.57	91.73	268.79	8,526.37	-737.33	-2,508.51	2,513.72	4.38	-3.72	2.31	
10,983.00	90.77	269.60	8,526.07	-737.52	-2,521.93	2,527.15	9.35	-7.15	6.03	
10,996.29	90.64	269.66	8,525.91	-737.61	-2,535.22	2,540.43	1.08	-0.98	0.45	
11,009.57	90.66	269.58	8,525.76	-737.69	-2,548.50	2,553.71	0.62	0.15	-0.60	
11,022.86	90.66	269.50	8,525.61	-737.80	-2,561.79	2,567.00	0.60	0.00	-0.60	
11,036.14	90.63	269.41	8,525.46	-737.93	-2,575.07	2,580.28	0.71	-0.23	-0.68	
11,049.43	90.60	269.32	8,525.31	-738.07	-2,588.36	2,593.57	0.71	-0.23	-0.68	
11,062.71	90.59	269.22	8,525.18	-738.24	-2,601.63	2,606.85	0.76	-0.08	-0.75	
11,076.00	90.60	269.12	8,525.04	-738.44	-2,614.92	2,620.14	0.76	0.08	-0.75	
11,089.43	90.58	269.00	8,524.90	-738.66	-2,628.35	2,633.57	0.91	-0.15	-0.89	
11,102.86	90.55	268.88	8,524.77	-738.90	-2,641.78	2,647.00	0.92	-0.22	-0.89	
11,116.29	90.52	268.75	8,524.64	-739.18	-2,655.20	2,660.42	0.99	-0.22	-0.97	
11,129.71	90.49	268.61	8,524.52	-739.49	-2,668.62	2,673.84	1.07	-0.22	-1.04	
11,143.14	90.47	268.48	8,524.41	-739.83	-2,682.04	2,687.27	0.98	-0.15	-0.97	
11,156.57	90.48	268.34	8,524.30	-740.20	-2,695.47	2,700.70	1.05	0.07	-1.04	
11,170.00	90.53	268.20	8,524.18	-740.61	-2,708.89	2,714.12	1.11	0.37	-1.04	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
11,183.43	90.56	268.07	8,524.05	-741.05	-2,722.31	2,727.55	0.99	0.22	-0.97
11,196.86	90.58	267.93	8,523.92	-741.52	-2,735.74	2,740.97	1.05	0.15	-1.04
11,210.29	90.55	267.80	8,523.79	-742.02	-2,749.16	2,754.39	0.99	-0.22	-0.97
11,223.71	90.52	267.69	8,523.66	-742.54	-2,762.56	2,767.81	0.85	-0.22	-0.82
11,237.14	90.51	267.58	8,523.54	-743.10	-2,775.98	2,781.23	0.82	-0.07	-0.82
11,250.57	90.49	267.50	8,523.43	-743.67	-2,789.40	2,794.65	0.61	-0.15	-0.60
11,264.00	90.43	267.44	8,523.32	-744.27	-2,802.82	2,808.07	0.63	-0.45	-0.45
11,277.43	90.31	267.44	8,523.23	-744.87	-2,816.23	2,821.49	0.89	-0.89	0.00
11,290.86	90.16	267.47	8,523.18	-745.46	-2,829.65	2,834.91	1.14	-1.12	0.22
11,304.29	90.04	267.50	8,523.15	-746.05	-2,843.07	2,848.33	0.92	-0.89	0.22
11,317.71	89.98	267.54	8,523.15	-746.63	-2,856.47	2,861.74	0.54	-0.45	0.30
11,331.14	89.98	267.55	8,523.15	-747.21	-2,869.89	2,875.16	0.07	0.00	0.07
11,344.57	90.12	267.75	8,523.14	-747.76	-2,883.31	2,888.59	1.82	1.04	1.49
11,358.00	90.43	268.79	8,523.08	-748.17	-2,896.73	2,902.01	8.08	2.31	7.74
11,371.29	90.68	270.05	8,522.95	-748.30	-2,910.02	2,915.30	9.67	1.88	9.48
11,384.57	90.74	270.60	8,522.78	-748.22	-2,923.30	2,928.58	4.17	0.45	4.14
11,397.86	90.80	270.38	8,522.61	-748.11	-2,936.59	2,941.87	1.72	0.45	-1.66
11,411.14	90.88	270.14	8,522.41	-748.05	-2,949.87	2,955.14	1.90	0.60	-1.81
11,424.43	90.98	269.88	8,522.20	-748.05	-2,963.16	2,968.43	2.10	0.75	-1.96
11,437.71	91.13	269.62	8,521.95	-748.11	-2,976.43	2,981.71	2.26	1.13	-1.96
11,451.00	91.29	269.38	8,521.67	-748.22	-2,989.72	2,995.00	2.17	1.20	-1.81
11,464.29	91.45	269.17	8,521.35	-748.39	-3,003.00	3,008.28	1.99	1.20	-1.58
11,477.57	91.58	268.97	8,521.00	-748.61	-3,016.28	3,021.56	1.80	0.98	-1.51
11,490.86	91.66	268.80	8,520.63	-748.86	-3,029.56	3,034.84	1.41	0.60	-1.28
11,504.14	91.70	268.64	8,520.24	-749.16	-3,042.83	3,048.11	1.24	0.30	-1.20
11,517.43	91.77	268.50	8,519.83	-749.49	-3,056.11	3,061.40	1.18	0.53	-1.05
11,530.71	91.83	268.37	8,519.42	-749.85	-3,069.38	3,074.67	1.08	0.45	-0.98
11,544.00	91.92	268.28	8,518.98	-750.24	-3,082.66	3,087.95	0.96	0.68	-0.68
11,557.43	92.06	268.23	8,518.52	-750.65	-3,096.07	3,101.36	1.11	1.04	-0.37
11,570.86	92.23	268.20	8,518.01	-751.07	-3,109.49	3,114.78	1.29	1.27	-0.22
11,584.29	92.43	268.18	8,517.47	-751.49	-3,122.90	3,128.20	1.50	1.49	-0.15
11,597.71	92.66	268.16	8,516.87	-751.92	-3,136.30	3,141.60	1.72	1.71	-0.15
11,611.14	92.92	268.12	8,516.22	-752.36	-3,149.71	3,155.01	1.96	1.94	-0.30
11,624.57	93.13	268.90	8,515.51	-752.71	-3,163.11	3,168.42	6.01	1.56	5.81
11,638.00	93.13	270.16	8,514.78	-752.82	-3,176.52	3,181.83	9.37	0.00	9.38
11,651.14	92.90	271.38	8,514.08	-752.64	-3,189.64	3,194.95	9.44	-1.75	9.28
11,664.29	93.10	271.21	8,513.40	-752.34	-3,202.77	3,208.07	1.99	1.52	-1.29
11,677.43	93.27	271.02	8,512.67	-752.09	-3,215.89	3,221.19	1.94	1.29	-1.45
11,690.57	93.38	270.81	8,511.90	-751.88	-3,229.00	3,234.30	1.80	0.84	-1.60
11,703.71	93.45	270.58	8,511.12	-751.72	-3,242.12	3,247.42	1.83	0.53	-1.75
11,716.86	93.46	270.33	8,510.33	-751.61	-3,255.25	3,260.54	1.90	0.08	-1.90
11,730.00	93.45	270.07	8,509.54	-751.57	-3,268.36	3,273.66	1.98	-0.08	-1.98
11,743.29	93.27	269.78	8,508.76	-751.59	-3,281.63	3,286.92	2.57	-1.35	-2.18
11,756.57	93.00	269.47	8,508.03	-751.67	-3,294.89	3,300.18	3.09	-2.03	-2.33



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
11,769.86	92.64	269.17	8,507.38	-751.83	-3,308.16	3,313.46	3.52	-2.71	-2.26
11,783.14	92.24	268.89	8,506.81	-752.05	-3,321.43	3,326.72	3.68	-3.01	-2.11
11,796.43	91.71	268.82	8,506.35	-752.32	-3,334.71	3,340.00	4.02	-3.99	-0.53
11,809.71	90.55	269.55	8,506.09	-752.51	-3,347.98	3,353.28	10.32	-8.73	5.50
11,823.00	89.46	270.11	8,506.09	-752.55	-3,361.27	3,366.57	9.22	-8.20	4.21
11,836.43	88.25	270.28	8,506.36	-752.50	-3,374.70	3,380.00	9.10	-9.01	1.27
11,849.86	88.34	270.12	8,506.76	-752.46	-3,388.12	3,393.42	1.37	0.67	-1.19
11,863.29	88.41	269.98	8,507.14	-752.44	-3,401.55	3,406.84	1.17	0.52	-1.04
11,876.71	88.48	269.86	8,507.50	-752.46	-3,414.96	3,420.26	1.03	0.52	-0.89
11,890.14	88.56	269.75	8,507.85	-752.51	-3,428.39	3,433.68	1.01	0.60	-0.82
11,903.57	88.62	269.67	8,508.18	-752.58	-3,441.81	3,447.11	0.74	0.45	-0.60
11,917.00	88.70	269.63	8,508.50	-752.66	-3,455.24	3,460.54	0.67	0.60	-0.30
11,930.14	88.78	269.65	8,508.79	-752.74	-3,468.38	3,473.67	0.63	0.61	0.15
11,943.29	88.83	269.70	8,509.06	-752.82	-3,481.52	3,486.82	0.54	0.38	0.38
11,956.43	88.88	269.75	8,509.32	-752.88	-3,494.66	3,499.96	0.54	0.38	0.38
11,969.57	88.95	269.79	8,509.57	-752.93	-3,507.80	3,513.10	0.61	0.53	0.30
11,982.71	89.05	269.80	8,509.80	-752.98	-3,520.94	3,526.23	0.76	0.76	0.08
11,995.86	89.39	271.04	8,509.98	-752.88	-3,534.08	3,539.38	9.78	2.59	9.43
12,009.00	89.72	272.30	8,510.08	-752.50	-3,547.22	3,552.51	9.91	2.51	9.59
12,022.43	90.17	273.43	8,510.09	-751.83	-3,560.63	3,565.92	9.06	3.35	8.41
12,035.86	90.39	273.81	8,510.03	-750.98	-3,574.03	3,579.32	3.27	1.64	2.83
12,049.29	90.48	273.46	8,509.93	-750.13	-3,587.44	3,592.71	2.69	0.67	-2.61
12,062.71	90.67	273.07	8,509.79	-749.36	-3,600.83	3,606.10	3.23	1.42	-2.91
12,076.14	91.01	272.68	8,509.59	-748.69	-3,614.25	3,619.51	3.85	2.53	-2.90
12,089.57	91.42	272.31	8,509.31	-748.11	-3,627.66	3,632.92	4.11	3.05	-2.76
12,103.00	91.77	272.00	8,508.94	-747.60	-3,641.07	3,646.33	3.48	2.61	-2.31
12,116.43	92.00	271.79	8,508.49	-747.16	-3,654.49	3,659.74	2.32	1.71	-1.56
12,129.86	92.21	271.64	8,508.00	-746.76	-3,667.91	3,673.15	1.92	1.56	-1.12
12,143.29	92.40	271.54	8,507.46	-746.38	-3,681.32	3,686.57	1.60	1.41	-0.74
12,156.71	92.52	271.45	8,506.89	-746.03	-3,694.72	3,699.97	1.12	0.89	-0.67
12,170.14	92.49	271.37	8,506.30	-745.70	-3,708.14	3,713.38	0.64	-0.22	-0.60
12,183.57	92.39	271.29	8,505.73	-745.39	-3,721.55	3,726.79	0.95	-0.74	-0.60
12,197.00	92.31	271.19	8,505.18	-745.10	-3,734.97	3,740.20	0.95	-0.60	-0.74
12,210.29	92.28	271.05	8,504.64	-744.84	-3,748.24	3,753.48	1.08	-0.23	-1.05
12,223.57	92.23	270.88	8,504.12	-744.62	-3,761.51	3,766.74	1.33	-0.38	-1.28
12,236.86	92.14	270.71	8,503.61	-744.43	-3,774.79	3,780.02	1.45	-0.68	-1.28
12,250.14	91.95	270.54	8,503.14	-744.29	-3,788.06	3,793.29	1.92	-1.43	-1.28
12,263.43	91.67	270.37	8,502.72	-744.18	-3,801.34	3,806.57	2.46	-2.11	-1.28
12,276.71	91.39	270.23	8,502.37	-744.11	-3,814.62	3,819.84	2.36	-2.11	-1.05
12,290.00	91.21	270.13	8,502.06	-744.07	-3,827.90	3,833.13	1.55	-1.35	-0.75
12,303.43	91.20	270.08	8,501.78	-744.05	-3,841.33	3,846.56	0.38	-0.07	-0.37
12,316.86	91.31	270.07	8,501.49	-744.03	-3,854.76	3,859.98	0.82	0.82	-0.07
12,330.29	91.48	270.07	8,501.16	-744.01	-3,868.18	3,873.41	1.27	1.27	0.00



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
12,343.71	91.68	270.09	8,500.79	-744.00	-3,881.60	3,886.82	1.50	1.49	0.15
12,357.14	91.83	270.10	8,500.38	-743.97	-3,895.02	3,900.25	1.12	1.12	0.07
12,370.57	92.00	270.10	8,499.93	-743.95	-3,908.44	3,913.67	1.27	1.27	0.00
12,384.00	92.15	270.07	8,499.44	-743.93	-3,921.87	3,927.09	1.14	1.12	-0.22
12,397.29	92.23	269.99	8,498.94	-743.92	-3,935.15	3,940.37	0.85	0.60	-0.60
12,410.57	92.26	269.88	8,498.42	-743.94	-3,948.42	3,953.64	0.86	0.23	-0.83
12,423.86	92.25	269.77	8,497.89	-743.98	-3,961.70	3,966.92	0.83	-0.08	-0.83
12,437.14	92.24	269.65	8,497.37	-744.05	-3,974.97	3,980.19	0.91	-0.08	-0.90
12,450.43	92.34	269.56	8,496.84	-744.14	-3,988.24	3,993.47	1.01	0.75	-0.68
12,456.86	92.42	269.53	8,496.58	-744.19	-3,994.66	3,999.89	1.31	1.20	-0.53
03-4000VS(BB-134H)									
12,463.71	92.50	269.49	8,496.28	-744.25	-4,001.51	4,006.74	1.31	1.20	-0.53
12,477.00	92.65	269.48	8,495.68	-744.37	-4,014.79	4,020.01	1.13	1.13	-0.08
12,490.29	92.80	269.56	8,495.05	-744.48	-4,028.06	4,033.29	1.28	1.13	0.60
12,503.57	92.91	269.69	8,494.39	-744.56	-4,041.33	4,046.55	1.28	0.83	0.98
12,516.86	93.00	269.84	8,493.71	-744.62	-4,054.60	4,059.82	1.31	0.68	1.13
12,530.14	93.04	269.99	8,493.01	-744.64	-4,067.86	4,073.08	1.17	0.30	1.13
12,543.43	93.00	270.12	8,492.31	-744.63	-4,081.13	4,086.36	1.02	-0.30	0.98
12,556.71	92.62	270.31	8,491.66	-744.58	-4,094.40	4,099.62	3.20	-2.86	1.43
12,570.00	91.66	270.90	8,491.16	-744.44	-4,107.67	4,112.90	8.48	-7.22	4.44
12,583.29	90.96	272.03	8,490.86	-744.10	-4,120.96	4,126.18	10.00	-5.27	8.50
12,596.57	91.08	272.03	8,490.62	-743.63	-4,134.23	4,139.44	0.90	0.90	0.00
12,609.86	91.18	271.88	8,490.36	-743.17	-4,147.51	4,152.72	1.36	0.75	-1.13
12,623.14	91.33	271.71	8,490.07	-742.76	-4,160.78	4,165.98	1.71	1.13	-1.28
12,636.43	91.47	271.54	8,489.74	-742.38	-4,174.06	4,179.26	1.66	1.05	-1.28
12,649.71	91.62	271.36	8,489.38	-742.04	-4,187.33	4,192.53	1.76	1.13	-1.36
12,663.00	91.75	271.21	8,488.99	-741.75	-4,200.61	4,205.81	1.49	0.98	-1.13
12,676.43	91.81	271.09	8,488.57	-741.48	-4,214.03	4,219.23	1.00	0.45	-0.89
12,689.86	91.85	271.00	8,488.15	-741.23	-4,227.45	4,232.65	0.73	0.30	-0.67
12,703.29	91.88	270.92	8,487.71	-741.01	-4,240.87	4,246.07	0.64	0.22	-0.60
12,716.71	91.91	270.85	8,487.27	-740.80	-4,254.28	4,259.47	0.57	0.22	-0.52
12,730.14	91.83	270.79	8,486.83	-740.61	-4,267.70	4,272.89	0.74	-0.60	-0.45
12,743.57	91.31	270.95	8,486.46	-740.40	-4,281.13	4,286.32	4.05	-3.87	1.19
12,757.00	90.19	271.33	8,486.28	-740.14	-4,294.55	4,299.74	8.81	-8.34	2.83
12,770.29	89.07	271.26	8,486.37	-739.84	-4,307.84	4,313.02	8.44	-8.43	-0.53
12,783.57	89.17	271.24	8,486.57	-739.55	-4,321.11	4,326.30	0.77	0.75	-0.15
12,796.86	89.22	271.23	8,486.76	-739.26	-4,334.40	4,339.58	0.38	0.38	-0.08
12,810.14	89.29	271.21	8,486.93	-738.98	-4,347.68	4,352.85	0.55	0.53	-0.15
12,823.43	89.35	271.20	8,487.09	-738.70	-4,360.96	4,366.14	0.46	0.45	-0.08
12,836.71	89.40	271.17	8,487.24	-738.42	-4,374.24	4,379.41	0.44	0.38	-0.23
12,850.00	89.46	271.13	8,487.37	-738.16	-4,387.53	4,392.70	0.54	0.45	-0.30
12,863.29	89.50	271.07	8,487.49	-737.90	-4,400.81	4,405.98	0.54	0.30	-0.45
12,876.57	89.54	271.00	8,487.60	-737.66	-4,414.09	4,419.26	0.61	0.30	-0.53



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
12,889.86	89.60	270.91	8,487.70	-737.44	-4,427.38	4,432.54	0.81	0.45	-0.68
12,903.14	89.64	270.83	8,487.79	-737.24	-4,440.66	4,445.82	0.67	0.30	-0.60
12,916.43	89.66	270.74	8,487.87	-737.06	-4,453.94	4,459.10	0.69	0.15	-0.68
12,929.71	89.68	270.65	8,487.94	-736.90	-4,467.22	4,472.38	0.69	0.15	-0.68
12,943.00	89.71	270.58	8,488.02	-736.75	-4,480.51	4,485.67	0.57	0.23	-0.53
12,956.43	89.77	270.52	8,488.08	-736.62	-4,493.94	4,499.10	0.63	0.45	-0.45
12,969.86	89.88	270.46	8,488.12	-736.51	-4,507.37	4,512.53	0.93	0.82	-0.45
12,983.29	90.05	270.41	8,488.13	-736.41	-4,520.80	4,525.95	1.32	1.27	-0.37
12,996.71	90.25	270.37	8,488.09	-736.32	-4,534.22	4,539.37	1.52	1.49	-0.30
13,010.14	90.46	270.32	8,488.01	-736.24	-4,547.65	4,552.80	1.61	1.56	-0.37
13,023.57	90.65	270.27	8,487.88	-736.17	-4,561.08	4,566.23	1.46	1.41	-0.37
13,037.00	90.81	270.20	8,487.71	-736.11	-4,574.51	4,579.66	1.30	1.19	-0.52
13,050.29	90.93	270.13	8,487.50	-736.07	-4,587.80	4,592.95	1.05	0.90	-0.53
13,063.57	90.98	270.05	8,487.28	-736.05	-4,601.07	4,606.22	0.71	0.38	-0.60
13,076.86	90.96	269.96	8,487.06	-736.05	-4,614.36	4,619.51	0.69	-0.15	-0.68
13,090.14	90.88	269.87	8,486.84	-736.07	-4,627.64	4,632.79	0.91	-0.60	-0.68
13,103.43	90.63	269.79	8,486.67	-736.11	-4,640.93	4,646.08	1.98	-1.88	-0.60
13,116.71	89.98	269.86	8,486.60	-736.15	-4,654.21	4,659.36	4.92	-4.89	0.53
13,130.00	88.64	270.24	8,486.76	-736.14	-4,667.50	4,672.65	10.48	-10.08	2.86
13,143.29	88.04	270.22	8,487.14	-736.09	-4,680.78	4,685.93	4.52	-4.51	-0.15
13,156.57	87.97	270.17	8,487.61	-736.04	-4,694.05	4,699.20	0.65	-0.53	-0.38
13,169.86	87.96	270.12	8,488.08	-736.01	-4,707.34	4,712.48	0.38	-0.08	-0.38
13,183.14	87.99	270.08	8,488.55	-735.98	-4,720.61	4,725.75	0.38	0.23	-0.30
13,196.43	88.04	270.03	8,489.01	-735.97	-4,733.89	4,739.03	0.53	0.38	-0.38
13,209.71	88.09	269.99	8,489.46	-735.97	-4,747.16	4,752.31	0.48	0.38	-0.30
13,223.00	88.17	269.94	8,489.89	-735.98	-4,760.44	4,765.59	0.71	0.60	-0.38
13,236.29	88.25	269.88	8,490.30	-736.00	-4,773.73	4,778.87	0.75	0.60	-0.45
13,249.57	88.30	269.81	8,490.70	-736.03	-4,787.00	4,792.15	0.65	0.38	-0.53
13,262.86	88.33	269.74	8,491.10	-736.09	-4,800.29	4,805.43	0.57	0.23	-0.53
13,276.14	88.36	269.67	8,491.48	-736.15	-4,813.56	4,818.70	0.57	0.23	-0.53
13,289.43	88.44	269.60	8,491.85	-736.24	-4,826.84	4,831.99	0.80	0.60	-0.53
13,302.71	88.54	269.53	8,492.20	-736.34	-4,840.12	4,845.26	0.92	0.75	-0.53
13,316.00	88.65	269.47	8,492.53	-736.46	-4,853.41	4,858.55	0.94	0.83	-0.45
13,329.14	88.79	269.40	8,492.82	-736.58	-4,866.54	4,871.69	1.19	1.07	-0.53
13,342.29	88.96	269.33	8,493.08	-736.73	-4,879.69	4,884.83	1.40	1.29	-0.53
13,355.43	89.16	269.27	8,493.29	-736.89	-4,892.83	4,897.97	1.59	1.52	-0.46
13,368.57	89.29	269.21	8,493.47	-737.07	-4,905.96	4,911.11	1.09	0.99	-0.46
13,381.71	89.34	269.16	8,493.63	-737.25	-4,919.10	4,924.25	0.54	0.38	-0.38
13,394.86	89.39	269.12	8,493.77	-737.45	-4,932.25	4,937.40	0.49	0.38	-0.30
13,408.00	89.50	269.08	8,493.90	-737.66	-4,945.39	4,950.54	0.89	0.84	-0.30
13,421.57	89.73	269.07	8,493.99	-737.87	-4,958.95	4,964.11	1.70	1.69	-0.07
13,435.14	90.02	269.07	8,494.02	-738.10	-4,972.52	4,977.68	2.14	2.14	0.00
13,448.71	90.24	269.07	8,493.99	-738.32	-4,986.09	4,991.25	1.62	1.62	0.00
13,462.29	90.45	269.06	8,493.91	-738.54	-4,999.67	5,004.83	1.55	1.55	-0.07



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
13,475.86	90.63	269.04	8,493.78	-738.76	-5,013.24	5,018.39	1.33	1.33	-0.15
13,489.43	90.77	268.99	8,493.62	-739.00	-5,026.80	5,031.96	1.10	1.03	-0.37
13,503.00	90.80	268.90	8,493.43	-739.25	-5,040.37	5,045.53	0.70	0.22	-0.66
13,516.14	90.69	268.74	8,493.26	-739.52	-5,053.51	5,058.67	1.48	-0.84	-1.22
13,529.29	90.51	268.54	8,493.12	-739.83	-5,066.65	5,071.82	2.05	-1.37	-1.52
13,542.43	90.36	268.33	8,493.02	-740.19	-5,079.79	5,084.95	1.96	-1.14	-1.60
13,555.57	90.22	268.12	8,492.95	-740.59	-5,092.92	5,098.09	1.92	-1.07	-1.60
13,568.71	90.04	267.93	8,492.92	-741.05	-5,106.05	5,111.22	1.99	-1.37	-1.45
13,581.86	89.30	268.02	8,493.00	-741.51	-5,119.19	5,124.37	5.67	-5.63	0.68
13,595.00	88.80	268.22	8,493.22	-741.94	-5,132.32	5,137.50	4.10	-3.81	1.52
13,608.29	88.93	268.14	8,493.48	-742.36	-5,145.60	5,150.78	1.15	0.98	-0.60
13,621.57	89.04	268.08	8,493.72	-742.80	-5,158.88	5,164.06	0.94	0.83	-0.45
13,634.86	89.13	268.04	8,493.93	-743.25	-5,172.16	5,177.34	0.74	0.68	-0.30
13,648.14	89.17	268.01	8,494.13	-743.71	-5,185.43	5,190.62	0.38	0.30	-0.23
13,661.43	89.20	268.00	8,494.32	-744.17	-5,198.71	5,203.90	0.24	0.23	-0.08
13,674.71	89.12	268.01	8,494.51	-744.63	-5,211.98	5,217.17	0.61	-0.60	0.08
13,688.00	88.89	268.03	8,494.74	-745.09	-5,225.26	5,230.46	1.74	-1.73	0.15
13,701.43	88.67	268.07	8,495.03	-745.55	-5,238.68	5,243.88	1.66	-1.64	0.30
13,714.86	88.58	268.13	8,495.35	-746.00	-5,252.10	5,257.30	0.81	-0.67	0.45
13,728.29	88.59	268.20	8,495.68	-746.43	-5,265.51	5,270.72	0.53	0.07	0.52
13,741.71	88.66	268.29	8,496.00	-746.84	-5,278.92	5,284.13	0.85	0.52	0.67
13,755.14	88.72	268.39	8,496.31	-747.23	-5,292.35	5,297.56	0.87	0.45	0.74
13,768.57	88.79	268.50	8,496.60	-747.59	-5,305.77	5,310.98	0.97	0.52	0.82
13,782.00	88.86	268.64	8,496.88	-747.92	-5,319.19	5,324.41	1.17	0.52	1.04
13,795.29	88.90	268.81	8,497.14	-748.22	-5,332.47	5,337.69	1.31	0.30	1.28
13,808.57	88.94	269.00	8,497.39	-748.47	-5,345.75	5,350.97	1.46	0.30	1.43
13,821.86	89.01	269.20	8,497.62	-748.68	-5,359.04	5,364.26	1.59	0.53	1.50
13,835.14	89.08	269.42	8,497.85	-748.84	-5,372.31	5,377.53	1.74	0.53	1.66
13,848.43	89.17	269.63	8,498.05	-748.95	-5,385.60	5,390.82	1.72	0.68	1.58
13,861.71	89.30	269.85	8,498.23	-749.01	-5,398.88	5,404.10	1.92	0.98	1.66
13,875.00	89.46	270.06	8,498.37	-749.02	-5,412.17	5,417.39	1.99	1.20	1.58
13,888.43	89.64	270.26	8,498.48	-748.99	-5,425.60	5,430.82	2.00	1.34	1.49
13,901.86	89.86	270.46	8,498.53	-748.90	-5,439.03	5,444.25	2.21	1.64	1.49
13,915.29	90.10	270.65	8,498.54	-748.77	-5,452.46	5,457.68	2.28	1.79	1.41
13,928.71	90.31	270.83	8,498.49	-748.60	-5,465.88	5,471.09	2.06	1.56	1.34
13,942.14	90.52	271.01	8,498.39	-748.38	-5,479.30	5,484.52	2.06	1.56	1.34
13,955.57	90.77	271.17	8,498.24	-748.13	-5,492.73	5,497.94	2.21	1.86	1.19
13,969.00	91.04	271.31	8,498.03	-747.84	-5,506.16	5,511.37	2.26	2.01	1.04
13,982.43	91.26	271.42	8,497.76	-747.52	-5,519.58	5,524.79	1.83	1.64	0.82
13,995.86	91.46	271.52	8,497.44	-747.17	-5,533.00	5,538.21	1.66	1.49	0.74
14,009.29	91.70	271.60	8,497.07	-746.81	-5,546.42	5,551.62	1.88	1.79	0.60
14,022.71	91.93	271.66	8,496.65	-746.43	-5,559.83	5,565.03	1.77	1.71	0.45
14,036.14	92.14	271.71	8,496.17	-746.03	-5,573.24	5,578.44	1.61	1.56	0.37



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
14,049.57	92.37	271.73	8,495.64	-745.63	-5,586.66	5,591.85	1.72	1.71	0.15
14,063.00	92.60	271.73	8,495.06	-745.22	-5,600.07	5,605.26	1.71	1.71	0.00
14,076.29	92.70	271.68	8,494.44	-744.83	-5,613.34	5,618.53	0.84	0.75	-0.38
14,089.57	92.76	271.60	8,493.81	-744.45	-5,626.60	5,631.78	0.75	0.45	-0.60
14,102.86	92.80	271.52	8,493.17	-744.09	-5,639.87	5,645.05	0.67	0.30	-0.60
14,116.14	92.86	271.44	8,492.51	-743.74	-5,653.13	5,658.30	0.75	0.45	-0.60
14,129.43	92.93	271.37	8,491.84	-743.42	-5,666.40	5,671.57	0.74	0.53	-0.53
14,142.71	92.35	271.07	8,491.23	-743.14	-5,679.66	5,684.83	4.92	-4.37	-2.26
14,156.00	91.36	270.56	8,490.80	-742.95	-5,692.94	5,698.11	8.38	-7.45	-3.84
14,169.43	90.37	270.00	8,490.60	-742.88	-5,706.37	5,711.54	8.47	-7.37	-4.17
14,182.86	89.91	269.71	8,490.56	-742.92	-5,719.80	5,724.97	4.05	-3.43	-2.16
14,196.29	90.08	269.77	8,490.56	-742.98	-5,733.23	5,738.40	1.34	1.27	0.45
14,209.71	90.28	269.83	8,490.52	-743.02	-5,746.65	5,751.82	1.56	1.49	0.45
14,223.14	90.47	269.90	8,490.43	-743.06	-5,760.08	5,765.25	1.51	1.41	0.52
14,236.57	90.57	269.96	8,490.31	-743.07	-5,773.51	5,778.68	0.87	0.74	0.45
14,250.00	90.61	270.00	8,490.17	-743.08	-5,786.94	5,792.11	0.42	0.30	0.30
14,263.29	90.69	270.03	8,490.02	-743.07	-5,800.23	5,805.39	0.64	0.60	0.23
14,276.57	90.86	270.04	8,489.84	-743.06	-5,813.50	5,818.67	1.28	1.28	0.08
14,289.86	91.09	270.04	8,489.62	-743.06	-5,826.79	5,831.96	1.73	1.73	0.00
14,303.14	91.30	270.04	8,489.34	-743.05	-5,840.07	5,845.24	1.58	1.58	0.00
14,316.43	91.49	270.05	8,489.02	-743.04	-5,853.36	5,858.52	1.43	1.43	0.08
14,329.71	91.63	270.08	8,488.66	-743.02	-5,866.63	5,871.80	1.08	1.05	0.23
14,343.00	91.72	270.13	8,488.27	-743.00	-5,879.92	5,885.08	0.77	0.68	0.38
14,356.43	91.69	270.22	8,487.87	-742.96	-5,893.34	5,898.50	0.71	-0.22	0.67
14,369.86	91.44	270.33	8,487.50	-742.89	-5,906.76	5,911.93	2.03	-1.86	0.82
14,383.29	90.70	270.42	8,487.25	-742.80	-5,920.19	5,925.36	5.55	-5.51	0.67
14,396.71	89.81	270.34	8,487.19	-742.71	-5,933.61	5,938.77	6.66	-6.63	-0.60
14,410.14	89.95	270.39	8,487.22	-742.63	-5,947.04	5,952.20	1.11	1.04	0.37
14,423.57	90.21	270.51	8,487.20	-742.52	-5,960.47	5,965.63	2.13	1.94	0.89
14,437.00	90.46	270.60	8,487.12	-742.39	-5,973.90	5,979.06	1.98	1.86	0.67
14,450.43	90.60	270.65	8,487.00	-742.25	-5,987.33	5,992.49	1.11	1.04	0.37
14,463.86	90.51	270.68	8,486.87	-742.09	-6,000.76	6,005.91	0.71	-0.67	0.22
14,477.29	90.34	270.68	8,486.77	-741.93	-6,014.19	6,019.34	1.27	-1.27	0.00
14,490.71	90.34	270.67	8,486.69	-741.77	-6,027.60	6,032.76	0.07	0.00	-0.07
14,504.14	90.50	270.65	8,486.59	-741.62	-6,041.03	6,046.18	1.20	1.19	-0.15
14,517.57	90.78	270.62	8,486.44	-741.47	-6,054.46	6,059.61	2.10	2.08	-0.22
14,531.00	91.10	270.58	8,486.22	-741.33	-6,067.89	6,073.04	2.40	2.38	-0.30
14,544.29	91.40	270.53	8,485.93	-741.20	-6,081.17	6,086.32	2.29	2.26	-0.38
14,557.57	91.64	270.48	8,485.58	-741.08	-6,094.45	6,099.60	1.85	1.81	-0.38
14,570.86	91.79	270.43	8,485.18	-740.98	-6,107.73	6,112.88	1.19	1.13	-0.38
14,584.14	91.81	270.38	8,484.76	-740.88	-6,121.01	6,126.15	0.41	0.15	-0.38
14,597.43	91.62	270.35	8,484.36	-740.80	-6,134.29	6,139.43	1.45	-1.43	-0.23
14,610.71	90.96	270.39	8,484.06	-740.71	-6,147.57	6,152.71	4.98	-4.97	0.30



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
14,624.00	89.84	270.46	8,483.97	-740.61	-6,160.86	6,166.00	8.44	-8.43	0.53
14,637.43	88.98	270.30	8,484.11	-740.53	-6,174.28	6,179.43	6.51	-6.40	-1.19
14,650.86	88.97	270.31	8,484.35	-740.45	-6,187.71	6,192.85	0.11	-0.07	0.07
14,664.29	89.00	270.32	8,484.59	-740.38	-6,201.14	6,206.28	0.24	0.22	0.07
14,677.71	89.10	270.34	8,484.81	-740.30	-6,214.56	6,219.70	0.76	0.75	0.15
14,691.14	89.24	270.36	8,485.01	-740.22	-6,227.99	6,233.12	1.05	1.04	0.15
14,704.57	89.36	270.38	8,485.17	-740.13	-6,241.41	6,246.55	0.91	0.89	0.15
14,718.00	89.43	270.40	8,485.31	-740.04	-6,254.84	6,259.98	0.54	0.52	0.15
14,731.43	89.51	270.43	8,485.44	-739.95	-6,268.27	6,273.41	0.64	0.60	0.22
14,744.86	89.55	270.46	8,485.55	-739.84	-6,281.70	6,286.84	0.37	0.30	0.22
14,758.29	89.63	270.49	8,485.64	-739.73	-6,295.13	6,300.26	0.64	0.60	0.22
14,771.71	89.75	270.54	8,485.71	-739.61	-6,308.55	6,313.68	0.97	0.89	0.37
14,785.14	89.81	270.60	8,485.77	-739.48	-6,321.98	6,327.11	0.63	0.45	0.45
14,798.57	89.79	270.68	8,485.81	-739.33	-6,335.41	6,340.54	0.61	-0.15	0.60
14,812.00	89.75	270.80	8,485.87	-739.15	-6,348.84	6,353.96	0.94	-0.30	0.89
14,825.57	89.72	270.96	8,485.93	-738.94	-6,362.41	6,367.53	1.20	-0.22	1.18
14,839.14	89.66	271.15	8,486.00	-738.69	-6,375.97	6,381.10	1.47	-0.44	1.40
14,852.71	89.65	271.35	8,486.08	-738.40	-6,389.54	6,394.66	1.48	-0.07	1.47
14,866.29	89.67	271.56	8,486.17	-738.05	-6,403.11	6,408.23	1.55	0.15	1.55
14,879.86	89.64	271.77	8,486.25	-737.66	-6,416.68	6,421.79	1.56	-0.22	1.55
14,893.43	89.63	271.95	8,486.33	-737.22	-6,430.24	6,435.35	1.33	-0.07	1.33
14,907.00	89.66	272.11	8,486.42	-736.74	-6,443.80	6,448.91	1.20	0.22	1.18
14,920.57	89.72	272.20	8,486.49	-736.23	-6,457.36	6,462.47	0.80	0.44	0.66
14,934.14	89.83	272.27	8,486.54	-735.70	-6,470.92	6,476.02	0.96	0.81	0.52
14,947.71	89.88	272.31	8,486.58	-735.16	-6,484.48	6,489.58	0.47	0.37	0.29
14,961.29	89.93	272.34	8,486.60	-734.61	-6,498.05	6,503.14	0.43	0.37	0.22
14,974.86	89.95	272.37	8,486.62	-734.05	-6,511.61	6,516.69	0.27	0.15	0.22
14,988.43	89.90	271.85	8,486.63	-733.55	-6,525.17	6,530.25	3.85	-0.37	-3.83
15,002.00	89.72	270.61	8,486.68	-733.26	-6,538.74	6,543.82	9.23	-1.33	-9.14
15,015.43	89.56	269.78	8,486.76	-733.21	-6,552.17	6,557.24	6.29	-1.19	-6.18
15,028.86	89.58	269.84	8,486.86	-733.26	-6,565.60	6,570.67	0.47	0.15	0.45
15,042.29	89.66	269.91	8,486.95	-733.29	-6,579.02	6,584.10	0.79	0.60	0.52
15,055.71	89.77	269.99	8,487.02	-733.30	-6,592.44	6,597.52	1.01	0.82	0.60
15,069.14	89.85	270.06	8,487.06	-733.29	-6,605.87	6,610.95	0.79	0.60	0.52
15,082.57	89.89	270.14	8,487.09	-733.27	-6,619.30	6,624.38	0.67	0.30	0.60
15,096.00	89.93	270.21	8,487.12	-733.23	-6,632.73	6,637.81	0.60	0.30	0.52
15,109.43	90.00	270.28	8,487.12	-733.17	-6,646.16	6,651.24	0.74	0.52	0.52
15,122.86	90.08	270.35	8,487.11	-733.10	-6,659.59	6,664.67	0.79	0.60	0.52
15,136.29	90.13	270.40	8,487.09	-733.01	-6,673.02	6,678.10	0.53	0.37	0.37
15,149.71	90.21	270.44	8,487.05	-732.91	-6,686.44	6,691.52	0.67	0.60	0.30
15,163.14	90.34	270.46	8,486.99	-732.80	-6,699.87	6,704.95	0.98	0.97	0.15
15,176.57	90.52	270.45	8,486.88	-732.70	-6,713.30	6,718.37	1.34	1.34	-0.07
15,190.00	90.69	270.39	8,486.74	-732.60	-6,726.73	6,731.80	1.34	1.27	-0.45
15,203.43	90.81	270.27	8,486.57	-732.52	-6,740.16	6,745.23	1.26	0.89	-0.89



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
15,216.86	90.91	270.10	8,486.37	-732.48	-6,753.59	6,758.66	1.47	0.74	-1.27
15,230.29	90.95	269.92	8,486.15	-732.48	-6,767.02	6,772.08	1.37	0.30	-1.34
15,243.71	90.89	269.74	8,485.93	-732.52	-6,780.43	6,785.50	1.41	-0.45	-1.34
15,257.14	90.63	269.53	8,485.75	-732.60	-6,793.86	6,798.93	2.49	-1.94	-1.56
15,270.57	89.99	268.49	8,485.68	-732.83	-6,807.29	6,812.36	9.09	-4.77	-7.74
15,284.00	89.09	267.80	8,485.79	-733.27	-6,820.71	6,825.79	8.44	-6.70	-5.14
15,297.43	89.04	267.74	8,486.01	-733.79	-6,834.13	6,839.21	0.58	-0.37	-0.45
15,310.86	88.97	267.68	8,486.24	-734.33	-6,847.55	6,852.63	0.69	-0.52	-0.45
15,324.29	88.94	267.64	8,486.49	-734.87	-6,860.96	6,866.05	0.37	-0.22	-0.30
15,337.71	88.90	267.59	8,486.74	-735.43	-6,874.37	6,879.46	0.48	-0.30	-0.37
15,351.14	88.88	267.55	8,487.00	-736.00	-6,887.79	6,892.88	0.33	-0.15	-0.30
15,364.57	88.88	267.52	8,487.26	-736.58	-6,901.20	6,906.30	0.22	0.00	-0.22
15,378.00	88.87	267.49	8,487.53	-737.16	-6,914.62	6,919.71	0.24	-0.07	-0.22
15,391.43	88.84	267.45	8,487.79	-737.76	-6,928.03	6,933.13	0.37	-0.22	-0.30
15,404.86	88.82	267.43	8,488.07	-738.36	-6,941.44	6,946.55	0.21	-0.15	-0.15
15,418.29	88.81	267.40	8,488.35	-738.96	-6,954.86	6,959.97	0.24	-0.07	-0.22
15,431.71	88.83	267.37	8,488.62	-739.57	-6,968.26	6,973.37	0.27	0.15	-0.22
15,445.14	88.85	267.35	8,488.89	-740.19	-6,981.67	6,986.79	0.21	0.15	-0.15
15,458.57	88.90	267.32	8,489.16	-740.82	-6,995.09	7,000.21	0.43	0.37	-0.22
15,472.00	88.97	267.30	8,489.41	-741.45	-7,008.50	7,013.63	0.54	0.52	-0.15
15,485.43	89.01	267.28	8,489.64	-742.08	-7,021.91	7,027.04	0.33	0.30	-0.15
15,498.86	89.04	267.27	8,489.87	-742.72	-7,035.33	7,040.46	0.24	0.22	-0.07
15,512.29	89.09	267.25	8,490.09	-743.36	-7,048.74	7,053.88	0.40	0.37	-0.15
15,525.71	89.18	267.24	8,490.29	-744.01	-7,062.14	7,067.28	0.67	0.67	-0.07
15,539.14	89.30	267.23	8,490.47	-744.66	-7,075.55	7,080.70	0.90	0.89	-0.07
15,552.57	89.42	267.22	8,490.62	-745.31	-7,088.97	7,094.12	0.90	0.89	-0.07
15,566.00	89.56	267.22	8,490.74	-745.96	-7,102.38	7,107.54	1.04	1.04	0.00
15,579.43	89.71	267.23	8,490.83	-746.61	-7,115.80	7,120.96	1.12	1.12	0.07
15,592.86	89.85	267.24	8,490.88	-747.26	-7,129.21	7,134.37	1.05	1.04	0.07
15,606.29	89.98	268.25	8,490.90	-747.78	-7,142.63	7,147.80	7.58	0.97	7.52
15,619.71	89.73	269.21	8,490.93	-748.08	-7,156.05	7,161.22	7.39	-1.86	7.15
15,633.14	89.91	269.67	8,490.98	-748.21	-7,169.47	7,174.64	3.68	1.34	3.43
15,646.57	89.97	269.67	8,490.99	-748.29	-7,182.90	7,188.07	0.45	0.45	0.00
15,660.00	90.02	269.66	8,490.99	-748.37	-7,196.33	7,201.50	0.38	0.37	-0.07
15,673.43	90.07	269.63	8,490.98	-748.45	-7,209.76	7,214.93	0.43	0.37	-0.22
15,686.86	90.08	269.59	8,490.96	-748.54	-7,223.19	7,228.36	0.31	0.07	-0.30
15,700.29	90.07	269.54	8,490.94	-748.64	-7,236.62	7,241.79	0.38	-0.07	-0.37
15,713.71	90.06	269.49	8,490.93	-748.76	-7,250.04	7,255.21	0.38	-0.07	-0.37
15,727.14	90.05	269.43	8,490.92	-748.88	-7,263.47	7,268.64	0.45	-0.07	-0.45
15,740.57	90.04	269.38	8,490.91	-749.02	-7,276.90	7,282.07	0.38	-0.07	-0.37
15,754.00	90.04	269.34	8,490.90	-749.17	-7,290.33	7,295.50	0.30	0.00	-0.30
15,767.29	90.06	269.30	8,490.89	-749.33	-7,303.62	7,308.79	0.34	0.15	-0.30
15,780.57	90.11	269.28	8,490.87	-749.50	-7,316.90	7,322.07	0.41	0.38	-0.15



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
15,793.86	90.16	269.26	8,490.83	-749.67	-7,330.19	7,335.36	0.41	0.38	-0.15	
15,807.14	90.22	269.24	8,490.79	-749.84	-7,343.47	7,348.64	0.48	0.45	-0.15	
15,820.43	90.28	269.21	8,490.73	-750.02	-7,356.75	7,361.93	0.50	0.45	-0.23	
15,833.71	90.83	269.76	8,490.60	-750.14	-7,370.03	7,375.21	5.86	4.14	4.14	
15,847.00	91.43	270.35	8,490.34	-750.13	-7,383.32	7,388.50	6.33	4.51	4.44	
15,860.43	91.50	270.30	8,490.00	-750.05	-7,396.75	7,401.92	0.64	0.52	-0.37	
15,873.86	91.59	270.25	8,489.64	-749.99	-7,410.17	7,415.35	0.77	0.67	-0.37	
15,887.29	91.68	270.20	8,489.25	-749.93	-7,423.60	7,428.77	0.77	0.67	-0.37	
15,900.71	91.77	270.16	8,488.85	-749.89	-7,437.01	7,442.19	0.73	0.67	-0.30	
15,914.14	91.88	270.12	8,488.42	-749.86	-7,450.43	7,455.61	0.87	0.82	-0.30	
15,927.57	91.99	270.09	8,487.97	-749.83	-7,463.85	7,469.03	0.85	0.82	-0.22	
15,941.00	92.12	270.07	8,487.49	-749.81	-7,477.28	7,482.45	0.98	0.97	-0.15	
15,954.29	92.27	270.08	8,486.98	-749.80	-7,490.56	7,495.73	1.13	1.13	0.08	
15,957.95	92.32	270.09	8,486.83	-749.79	-7,494.21	7,499.38	1.30	1.28	0.23	
04-7500VS(BB-134H)										
15,967.57	92.44	270.11	8,486.43	-749.78	-7,503.83	7,509.00	1.30	1.28	0.23	
15,980.86	92.61	270.15	8,485.85	-749.75	-7,517.10	7,522.27	1.31	1.28	0.30	
15,994.14	92.80	270.19	8,485.22	-749.71	-7,530.37	7,535.54	1.46	1.43	0.30	
16,007.43	92.99	270.22	8,484.55	-749.66	-7,543.64	7,548.81	1.45	1.43	0.23	
16,020.71	92.82	270.19	8,483.87	-749.61	-7,556.90	7,562.07	1.30	-1.28	-0.23	
16,034.00	92.30	270.11	8,483.28	-749.58	-7,570.18	7,575.35	3.96	-3.91	-0.60	
16,047.43	92.35	270.10	8,482.74	-749.55	-7,583.60	7,588.77	0.38	0.37	-0.07	
16,060.86	92.36	270.08	8,482.18	-749.53	-7,597.02	7,602.19	0.17	0.07	-0.15	
16,074.29	92.32	270.05	8,481.64	-749.52	-7,610.44	7,615.60	0.37	-0.30	-0.22	
16,087.71	92.21	270.02	8,481.11	-749.51	-7,623.85	7,629.01	0.85	-0.82	-0.22	
16,101.14	92.11	269.98	8,480.60	-749.51	-7,637.27	7,642.43	0.80	-0.74	-0.30	
16,114.57	91.75	269.86	8,480.15	-749.53	-7,650.69	7,655.86	2.83	-2.68	-0.89	
16,128.00	90.84	269.59	8,479.84	-749.59	-7,664.11	7,669.28	7.07	-6.78	-2.01	
16,141.43	90.16	269.38	8,479.73	-749.71	-7,677.54	7,682.71	5.30	-5.06	-1.56	
16,154.86	90.28	269.36	8,479.68	-749.86	-7,690.97	7,696.14	0.91	0.89	-0.15	
16,168.29	90.38	269.33	8,479.60	-750.01	-7,704.40	7,709.57	0.78	0.74	-0.22	
16,181.71	90.45	269.30	8,479.50	-750.17	-7,717.82	7,722.99	0.57	0.52	-0.22	
16,195.14	90.51	269.27	8,479.39	-750.34	-7,731.25	7,736.42	0.50	0.45	-0.22	
16,208.57	90.64	269.25	8,479.25	-750.51	-7,744.68	7,749.85	0.98	0.97	-0.15	
16,222.00	90.82	269.22	8,479.08	-750.69	-7,758.10	7,763.28	1.36	1.34	-0.22	
16,235.43	90.98	269.20	8,478.87	-750.88	-7,771.53	7,776.71	1.20	1.19	-0.15	
16,248.86	91.11	269.17	8,478.63	-751.07	-7,784.96	7,790.13	0.99	0.97	-0.22	
16,262.29	91.22	269.15	8,478.35	-751.27	-7,798.38	7,803.56	0.83	0.82	-0.15	
16,275.71	91.31	269.13	8,478.06	-751.47	-7,811.80	7,816.98	0.69	0.67	-0.15	
16,289.14	91.38	269.10	8,477.74	-751.67	-7,825.22	7,830.40	0.57	0.52	-0.22	
16,302.57	91.48	269.07	8,477.41	-751.89	-7,838.65	7,843.83	0.78	0.74	-0.22	
16,316.00	91.49	269.03	8,477.06	-752.11	-7,852.07	7,857.25	0.31	0.07	-0.30	
16,329.14	91.50	268.98	8,476.72	-752.34	-7,865.21	7,870.39	0.39	0.08	-0.38	
16,342.29	91.49	268.93	8,476.37	-752.58	-7,878.35	7,883.53	0.39	-0.08	-0.38	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
16,355.43	91.53	268.87	8,476.03	-752.83	-7,891.48	7,896.67	0.55	0.30	-0.46
16,368.57	91.62	268.82	8,475.67	-753.10	-7,904.61	7,909.80	0.78	0.68	-0.38
16,381.71	91.71	268.78	8,475.28	-753.37	-7,917.75	7,922.93	0.75	0.68	-0.30
16,394.86	91.86	268.75	8,474.87	-753.65	-7,930.89	7,936.08	1.16	1.14	-0.23
16,408.00	92.05	268.74	8,474.43	-753.94	-7,944.02	7,949.21	1.45	1.45	-0.08
16,421.29	92.20	268.76	8,473.93	-754.23	-7,957.29	7,962.49	1.14	1.13	0.15
16,434.57	92.31	268.80	8,473.41	-754.51	-7,970.56	7,975.75	0.88	0.83	0.30
16,447.86	92.43	268.85	8,472.86	-754.79	-7,983.84	7,989.03	0.98	0.90	0.38
16,461.14	92.54	268.90	8,472.28	-755.05	-7,997.10	8,002.30	0.91	0.83	0.38
16,474.43	92.52	268.95	8,471.70	-755.30	-8,010.38	8,015.57	0.40	-0.15	0.38
16,487.71	92.07	269.07	8,471.17	-755.53	-8,023.64	8,028.84	3.51	-3.39	0.90
16,501.00	91.18	269.60	8,470.79	-755.68	-8,036.93	8,042.13	7.79	-6.70	3.99
16,514.43	90.10	269.88	8,470.64	-755.74	-8,050.35	8,055.56	8.31	-8.04	2.08
16,527.86	90.10	269.90	8,470.62	-755.77	-8,063.78	8,068.99	0.15	0.00	0.15
16,541.29	90.16	269.87	8,470.59	-755.79	-8,077.21	8,082.42	0.50	0.45	-0.22
16,554.71	90.27	269.84	8,470.54	-755.83	-8,090.63	8,095.84	0.85	0.82	-0.22
16,568.14	90.43	269.81	8,470.45	-755.87	-8,104.06	8,109.27	1.21	1.19	-0.22
16,581.57	90.62	269.78	8,470.33	-755.92	-8,117.49	8,122.69	1.43	1.41	-0.22
16,595.00	90.78	269.76	8,470.17	-755.97	-8,130.92	8,136.12	1.20	1.19	-0.15
16,608.43	90.85	269.75	8,469.97	-756.03	-8,144.35	8,149.55	0.53	0.52	-0.07
16,621.86	90.91	269.75	8,469.77	-756.09	-8,157.78	8,162.98	0.45	0.45	0.00
16,635.29	91.00	269.75	8,469.54	-756.15	-8,171.21	8,176.41	0.67	0.67	0.00
16,648.71	91.15	269.75	8,469.29	-756.20	-8,184.62	8,189.83	1.12	1.12	0.00
16,662.14	91.29	269.74	8,469.01	-756.26	-8,198.05	8,203.25	1.05	1.04	-0.07
16,675.57	91.39	269.71	8,468.69	-756.33	-8,211.48	8,216.68	0.78	0.74	-0.22
16,689.00	91.43	269.65	8,468.36	-756.40	-8,224.90	8,230.11	0.54	0.30	-0.45
16,702.14	91.45	269.56	8,468.03	-756.49	-8,238.04	8,243.24	0.70	0.15	-0.68
16,715.29	91.45	269.45	8,467.70	-756.61	-8,251.18	8,256.39	0.84	0.00	-0.84
16,728.43	91.45	269.32	8,467.37	-756.75	-8,264.32	8,269.52	0.99	0.00	-0.99
16,741.57	91.49	269.18	8,467.03	-756.92	-8,277.45	8,282.66	1.11	0.30	-1.07
16,754.71	91.51	269.06	8,466.69	-757.12	-8,290.59	8,295.79	0.93	0.15	-0.91
16,767.86	91.55	268.94	8,466.34	-757.35	-8,303.73	8,308.94	0.96	0.30	-0.91
16,781.00	91.62	268.85	8,465.97	-757.60	-8,316.86	8,322.07	0.87	0.53	-0.68
16,794.43	91.71	268.79	8,465.58	-757.88	-8,330.29	8,335.50	0.81	0.67	-0.45
16,807.86	91.78	268.77	8,465.17	-758.17	-8,343.71	8,348.92	0.54	0.52	-0.15
16,821.29	91.84	268.76	8,464.75	-758.46	-8,357.13	8,362.34	0.45	0.45	-0.07
16,834.71	91.84	268.75	8,464.32	-758.75	-8,370.54	8,375.75	0.07	0.00	-0.07
16,848.14	91.87	268.75	8,463.88	-759.04	-8,383.96	8,389.17	0.22	0.22	0.00
16,861.57	91.91	268.75	8,463.44	-759.33	-8,397.38	8,402.59	0.30	0.30	0.00
16,875.00	91.77	268.74	8,463.01	-759.63	-8,410.80	8,416.02	1.05	-1.04	-0.07
16,888.43	91.07	269.10	8,462.68	-759.88	-8,424.22	8,429.44	5.86	-5.21	2.68
16,901.86	90.26	269.39	8,462.52	-760.06	-8,437.65	8,442.87	6.41	-6.03	2.16
16,915.29	90.34	269.33	8,462.45	-760.21	-8,451.08	8,456.30	0.74	0.60	-0.45



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
16,928.71	90.41	269.26	8,462.36	-760.37	-8,464.49	8,469.72	0.74	0.52	-0.52
16,942.14	90.44	269.18	8,462.26	-760.55	-8,477.92	8,483.15	0.64	0.22	-0.60
16,955.57	90.46	269.11	8,462.16	-760.76	-8,491.35	8,496.58	0.54	0.15	-0.52
16,969.00	90.40	269.04	8,462.06	-760.97	-8,504.78	8,510.01	0.69	-0.45	-0.52
16,982.29	90.21	268.97	8,461.98	-761.20	-8,518.07	8,523.30	1.52	-1.43	-0.53
16,995.57	89.98	268.92	8,461.96	-761.45	-8,531.34	8,536.57	1.77	-1.73	-0.38
17,008.86	89.83	268.88	8,461.98	-761.70	-8,544.63	8,549.86	1.17	-1.13	-0.30
17,022.14	89.76	268.84	8,462.03	-761.97	-8,557.91	8,563.14	0.61	-0.53	-0.30
17,035.43	89.76	268.81	8,462.09	-762.24	-8,571.20	8,576.43	0.23	0.00	-0.23
17,048.71	89.91	268.80	8,462.13	-762.52	-8,584.47	8,589.71	1.13	1.13	-0.08
17,062.00	90.14	268.80	8,462.12	-762.79	-8,597.76	8,603.00	1.73	1.73	0.00
17,075.43	90.38	268.83	8,462.06	-763.07	-8,611.19	8,616.43	1.80	1.79	0.22
17,088.86	90.64	268.87	8,461.94	-763.34	-8,624.61	8,629.86	1.96	1.94	0.30
17,102.29	90.93	268.93	8,461.76	-763.60	-8,638.04	8,643.28	2.21	2.16	0.45
17,115.71	91.17	268.99	8,461.51	-763.84	-8,651.46	8,656.70	1.84	1.79	0.45
17,129.14	91.31	269.05	8,461.22	-764.07	-8,664.88	8,670.13	1.13	1.04	0.45
17,142.57	91.40	269.10	8,460.90	-764.29	-8,678.30	8,683.55	0.77	0.67	0.37
17,156.00	91.40	269.15	8,460.57	-764.49	-8,691.73	8,696.98	0.37	0.00	0.37
17,169.29	91.25	269.17	8,460.27	-764.69	-8,705.01	8,710.26	1.14	-1.13	0.15
17,182.57	90.92	269.19	8,460.02	-764.88	-8,718.29	8,723.54	2.49	-2.48	0.15
17,195.86	90.83	269.20	8,459.81	-765.07	-8,731.58	8,736.83	0.68	-0.68	0.08
17,209.14	91.24	269.21	8,459.57	-765.25	-8,744.85	8,750.11	3.09	3.09	0.08
17,222.43	91.41	269.22	8,459.26	-765.43	-8,758.14	8,763.39	1.28	1.28	0.08
17,235.71	91.51	269.23	8,458.93	-765.61	-8,771.41	8,776.67	0.76	0.75	0.08
17,249.00	91.54	269.24	8,458.57	-765.79	-8,784.70	8,789.95	0.24	0.23	0.08
17,262.43	91.55	269.26	8,458.21	-765.96	-8,798.12	8,803.38	0.17	0.07	0.15
17,275.86	91.51	269.28	8,457.85	-766.14	-8,811.55	8,816.80	0.33	-0.30	0.15
17,289.29	91.45	269.29	8,457.51	-766.30	-8,824.97	8,830.23	0.45	-0.45	0.07
17,302.71	91.44	269.31	8,457.17	-766.47	-8,838.39	8,843.64	0.17	-0.07	0.15
17,316.14	91.51	269.32	8,456.82	-766.63	-8,851.81	8,857.07	0.53	0.52	0.07
17,329.57	91.61	269.32	8,456.46	-766.79	-8,865.23	8,870.49	0.74	0.74	0.00
17,343.00	91.62	269.30	8,456.08	-766.95	-8,878.66	8,883.92	0.17	0.07	-0.15
17,356.29	91.42	269.25	8,455.72	-767.12	-8,891.94	8,897.20	1.55	-1.50	-0.38
17,369.57	91.08	269.19	8,455.43	-767.30	-8,905.22	8,910.48	2.60	-2.56	-0.45
17,382.86	90.70	269.12	8,455.23	-767.49	-8,918.50	8,923.77	2.91	-2.86	-0.53
17,396.14	90.37	269.05	8,455.10	-767.71	-8,931.78	8,937.05	2.54	-2.48	-0.53
17,409.43	90.10	268.98	8,455.05	-767.93	-8,945.07	8,950.34	2.10	-2.03	-0.53
17,422.71	89.93	268.91	8,455.05	-768.18	-8,958.35	8,963.62	1.38	-1.28	-0.53
17,436.00	89.85	268.87	8,455.07	-768.44	-8,971.64	8,976.90	0.67	-0.60	-0.30
17,449.29	89.86	268.85	8,455.11	-768.70	-8,984.92	8,990.19	0.17	0.08	-0.15
17,462.57	89.91	268.84	8,455.13	-768.97	-8,998.20	9,003.47	0.38	0.38	-0.08
17,475.86	89.99	268.85	8,455.14	-769.24	-9,011.49	9,016.76	0.61	0.60	0.08
17,489.14	90.07	268.86	8,455.14	-769.50	-9,024.76	9,030.04	0.61	0.60	0.08



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
17,502.43	90.13	268.88	8,455.11	-769.76	-9,038.05	9,043.33	0.48	0.45	0.15	
17,515.71	90.24	268.89	8,455.07	-770.02	-9,051.33	9,056.61	0.83	0.83	0.08	
17,529.00	90.40	268.90	8,455.00	-770.28	-9,064.62	9,069.90	1.21	1.20	0.08	
17,542.43	90.53	268.89	8,454.89	-770.54	-9,078.04	9,083.32	0.97	0.97	-0.07	
17,555.86	90.59	268.88	8,454.76	-770.80	-9,091.47	9,096.75	0.45	0.45	-0.07	
17,569.29	90.57	268.86	8,454.62	-771.06	-9,104.90	9,110.18	0.21	-0.15	-0.15	
17,582.71	90.47	268.85	8,454.50	-771.33	-9,118.31	9,123.60	0.75	-0.75	-0.07	
17,596.14	90.33	268.83	8,454.40	-771.60	-9,131.74	9,137.03	1.05	-1.04	-0.15	
17,609.57	90.10	268.83	8,454.35	-771.88	-9,145.17	9,150.46	1.71	-1.71	0.00	
17,623.00	89.83	268.84	8,454.36	-772.15	-9,158.60	9,163.89	2.01	-2.01	0.07	
17,636.43	89.75	268.86	8,454.41	-772.42	-9,172.02	9,177.31	0.61	-0.60	0.15	
17,649.86	89.75	268.90	8,454.47	-772.68	-9,185.45	9,190.74	0.30	0.00	0.30	
17,663.29	89.86	268.94	8,454.52	-772.94	-9,198.88	9,204.17	0.87	0.82	0.30	
17,676.71	90.15	268.99	8,454.52	-773.18	-9,212.29	9,217.59	2.19	2.16	0.37	
17,690.14	90.59	269.03	8,454.43	-773.41	-9,225.72	9,231.02	3.29	3.28	0.30	
17,703.57	91.04	269.06	8,454.24	-773.63	-9,239.15	9,244.45	3.36	3.35	0.22	
17,717.00	91.43	269.08	8,453.95	-773.85	-9,252.57	9,257.88	2.91	2.90	0.15	
17,730.29	91.72	269.07	8,453.58	-774.07	-9,265.86	9,271.16	2.18	2.18	-0.08	
17,743.57	91.81	269.05	8,453.17	-774.28	-9,279.13	9,284.43	0.69	0.68	-0.15	
17,756.86	91.64	269.02	8,452.77	-774.51	-9,292.41	9,297.72	1.30	-1.28	-0.23	
17,770.14	91.33	268.98	8,452.43	-774.74	-9,305.69	9,310.99	2.35	-2.33	-0.30	
17,783.43	91.14	268.94	8,452.14	-774.98	-9,318.97	9,324.28	1.46	-1.43	-0.30	
17,796.71	91.15	268.90	8,451.88	-775.23	-9,332.24	9,337.55	0.31	0.08	-0.30	
17,810.00	91.37	268.87	8,451.59	-775.49	-9,345.53	9,350.84	1.67	1.66	-0.23	
17,823.29	91.65	268.86	8,451.24	-775.75	-9,358.81	9,364.12	2.11	2.11	-0.08	
17,836.57	91.80	268.84	8,450.84	-776.02	-9,372.08	9,377.40	1.14	1.13	-0.15	
17,849.86	91.86	268.84	8,450.41	-776.29	-9,385.36	9,390.68	0.45	0.45	0.00	
17,863.14	91.88	268.83	8,449.98	-776.56	-9,398.63	9,403.95	0.17	0.15	-0.08	
17,876.43	91.94	268.82	8,449.53	-776.83	-9,411.91	9,417.23	0.46	0.45	-0.08	
17,889.71	92.05	268.80	8,449.07	-777.11	-9,425.18	9,430.50	0.84	0.83	-0.15	
17,903.00	92.16	268.77	8,448.58	-777.39	-9,438.46	9,443.78	0.86	0.83	-0.23	
17,916.29	92.19	268.73	8,448.08	-777.68	-9,451.74	9,457.06	0.38	0.23	-0.30	
17,929.57	92.17	268.68	8,447.57	-777.98	-9,465.01	9,470.33	0.41	-0.15	-0.38	
17,942.86	92.19	268.63	8,447.07	-778.29	-9,478.28	9,483.61	0.40	0.15	-0.38	
17,956.14	92.27	268.57	8,446.55	-778.61	-9,491.55	9,496.88	0.75	0.60	-0.45	
17,969.43	92.37	268.50	8,446.01	-778.95	-9,504.82	9,510.15	0.92	0.75	-0.53	
17,982.71	92.46	268.44	8,445.45	-779.31	-9,518.09	9,523.42	0.81	0.68	-0.45	
17,996.00	92.59	268.39	8,444.87	-779.67	-9,531.36	9,536.69	1.05	0.98	-0.38	
18,009.43	92.81	268.33	8,444.24	-780.06	-9,544.77	9,550.11	1.70	1.64	-0.45	
18,022.86	93.04	268.28	8,443.55	-780.46	-9,558.17	9,563.51	1.75	1.71	-0.37	
18,036.29	93.25	268.24	8,442.81	-780.86	-9,571.58	9,576.92	1.59	1.56	-0.30	
18,049.71	93.42	268.19	8,442.03	-781.28	-9,584.97	9,590.31	1.32	1.27	-0.37	
18,063.14	93.43	268.15	8,441.23	-781.71	-9,598.37	9,603.72	0.31	0.07	-0.30	
18,076.57	92.73	268.35	8,440.51	-782.12	-9,611.77	9,617.12	5.42	-5.21	1.49	



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)
18,090.00	92.02	268.52	8,439.95	-782.48	-9,625.19	9,630.54	5.44	-5.29	1.27
18,103.43	91.40	268.88	8,439.55	-782.79	-9,638.61	9,643.96	5.34	-4.62	2.68
18,116.86	91.54	268.83	8,439.21	-783.06	-9,652.03	9,657.39	1.11	1.04	-0.37
18,130.29	91.63	268.78	8,438.84	-783.34	-9,665.45	9,670.81	0.77	0.67	-0.37
18,143.71	91.76	268.74	8,438.44	-783.63	-9,678.86	9,684.22	1.01	0.97	-0.30
18,157.14	91.90	268.69	8,438.01	-783.93	-9,692.28	9,697.64	1.11	1.04	-0.37
18,170.57	92.05	268.64	8,437.55	-784.24	-9,705.70	9,711.06	1.18	1.12	-0.37
18,184.00	92.23	268.59	8,437.05	-784.56	-9,719.12	9,724.48	1.39	1.34	-0.37
18,197.29	92.41	268.55	8,436.51	-784.90	-9,732.39	9,737.76	1.39	1.35	-0.30
18,210.57	92.55	268.51	8,435.93	-785.24	-9,745.65	9,751.02	1.10	1.05	-0.30
18,223.86	92.63	268.47	8,435.33	-785.59	-9,758.93	9,764.30	0.67	0.60	-0.30
18,237.14	92.64	268.44	8,434.72	-785.94	-9,772.19	9,777.56	0.24	0.08	-0.23
18,250.43	92.69	268.41	8,434.10	-786.31	-9,785.46	9,790.83	0.44	0.38	-0.23
18,263.71	92.74	268.39	8,433.48	-786.68	-9,798.72	9,804.10	0.41	0.38	-0.15
18,277.00	92.79	268.37	8,432.83	-787.05	-9,811.99	9,817.37	0.41	0.38	-0.15
18,290.29	92.88	268.37	8,432.18	-787.43	-9,825.26	9,830.64	0.68	0.68	0.00
18,303.57	92.98	268.38	8,431.50	-787.81	-9,838.51	9,843.90	0.76	0.75	0.08
18,316.86	93.08	268.40	8,430.80	-788.18	-9,851.78	9,857.17	0.77	0.75	0.15
18,330.14	93.16	268.42	8,430.07	-788.55	-9,865.03	9,870.42	0.62	0.60	0.15
18,343.43	93.22	268.43	8,429.33	-788.91	-9,878.30	9,883.69	0.46	0.45	0.08
18,356.71	93.30	268.44	8,428.58	-789.28	-9,891.55	9,896.95	0.61	0.60	0.08
18,370.00	93.39	268.44	8,427.80	-789.64	-9,904.81	9,910.21	0.68	0.68	0.00
18,383.29	93.49	268.42	8,427.01	-790.00	-9,918.08	9,923.48	0.77	0.75	-0.15
18,396.57	93.58	268.40	8,426.19	-790.37	-9,931.33	9,936.73	0.69	0.68	-0.15
18,409.86	93.62	268.37	8,425.35	-790.74	-9,944.58	9,949.99	0.38	0.30	-0.23
18,423.14	93.66	268.34	8,424.51	-791.12	-9,957.83	9,963.24	0.38	0.30	-0.23
18,436.43	93.73	268.30	8,423.65	-791.51	-9,971.09	9,976.50	0.61	0.53	-0.30
18,449.71	93.83	268.27	8,422.78	-791.91	-9,984.33	9,989.74	0.79	0.75	-0.23
18,459.35	93.92	268.26	8,422.13	-792.20	-9,993.95	9,999.36	0.92	0.90	-0.15
05-10000VS(BB-134H)									
18,463.00	93.95	268.25	8,421.88	-792.31	-9,997.59	10,003.00	0.92	0.90	-0.15
18,476.43	94.10	268.24	8,420.93	-792.72	-10,010.98	10,016.39	1.12	1.12	-0.07
18,489.86	94.24	268.23	8,419.96	-793.13	-10,024.37	10,029.78	1.05	1.04	-0.07
18,503.29	94.34	268.23	8,418.95	-793.55	-10,037.75	10,043.17	0.74	0.74	0.00
18,516.71	94.44	268.24	8,417.92	-793.96	-10,051.13	10,056.55	0.75	0.75	0.07
18,530.14	94.51	268.24	8,416.88	-794.37	-10,064.51	10,069.94	0.52	0.52	0.00
18,543.57	94.58	268.24	8,415.81	-794.78	-10,077.89	10,083.32	0.52	0.52	0.00
18,557.00	94.63	268.25	8,414.73	-795.19	-10,091.27	10,096.70	0.38	0.37	0.07
18,570.29	94.70	268.24	8,413.65	-795.60	-10,104.51	10,109.94	0.53	0.53	-0.08
18,583.57	94.80	268.24	8,412.55	-796.00	-10,117.74	10,123.18	0.75	0.75	0.00
18,596.86	94.86	268.23	8,411.43	-796.41	-10,130.97	10,136.41	0.46	0.45	-0.08
18,610.14	94.89	268.23	8,410.31	-796.82	-10,144.20	10,149.64	0.23	0.23	0.00
18,623.43	94.97	268.22	8,409.16	-797.23	-10,157.43	10,162.88	0.61	0.60	-0.08



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	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)	
18,636.71	95.10	268.20	8,408.00	-797.64	-10,170.66	10,176.10	0.99	0.98	-0.15	
18,650.00	95.23	268.19	8,406.80	-798.06	-10,183.89	10,189.34	0.98	0.98	-0.08	
18,662.00	95.40	268.17	8,405.69	-798.44	-10,195.83	10,201.28	1.43	1.42	-0.17	
18,669.46	95.49	268.16	8,404.98	-798.68	-10,203.25	10,208.70	1.18	1.17	-0.17	
06-LTP(BB-134H)										
18,671.00	95.51	268.16	8,404.84	-798.73	-10,204.78	10,210.24	1.18	1.17	-0.17	
100FWL: 18671.00' MD, 10210.24' VS, 8404.83' TVD										
18,674.00	95.54	268.15	8,404.55	-798.82	-10,207.77	10,213.22	1.18	1.17	-0.17	
18,686.00	95.68	268.13	8,403.37	-799.21	-10,219.70	10,225.16	1.18	1.17	-0.17	
Final MWD Survey: 18686.00' MD, 95.68°INC, 268.13°AZ										
18,745.00	95.68	268.13	8,397.53	-801.13	-10,278.38	10,283.85	0.00	0.00	0.00	
PTB: 18745.00' MD, 95.68°INC, 268.13°AZ - 07-PBHL(BB-134H)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
07-PBHL(BB-134H)	0.00	0.00	8,421.14	-782.54	-10,295.52	591,337.14	585,554.39	32.62555369	-104.18970911	
- hit/miss target										
- Shape										
- actual wellpath misses target center by 34.59usft at 18745.00usft MD (8397.53 TVD, -801.13 N, -10278.38 E)										
- Point										
06-LTP(BB-134H)	0.00	0.00	8,423.02	-781.89	-10,205.51	591,337.79	585,644.40	32.62555514	-104.18941674	
- actual wellpath misses target center by 24.74usft at 18669.46usft MD (8404.98 TVD, -798.68 N, -10203.25 E)										
- Point										
00-FTP(BB-134H)	0.00	0.00	8,617.00	-709.22	33.88	591,410.46	595,883.79	32.62571237	-104.15615713	
- actual wellpath misses target center by 233.62usft at 8553.00usft MD (8448.25 TVD, -716.44 N, -127.52 E)										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
138.00	138.00	Rustler				
246.01	246.00	Top of Salt				
578.17	578.00	Base of Salt				
815.29	815.00	Yates				
2,091.04	2,081.00	Capitan				
2,598.88	2,584.00	DLWR Mnt. Group				
3,325.13	3,304.00	Lower Brushy Canyon				
3,935.21	3,911.00	Bone Spring Lime				
6,427.00	6,386.00	1st Bone Spring SD				
6,578.95	6,536.00	2nd Bone Spring LM				
7,356.57	7,311.00	2nd Bone Spring SD				
7,676.64	7,631.00	3rd Bone Spring LM				
8,501.56	8,411.00	3rd Bone Spring SD				



Survey Report

Company:	Colgate Energy	Local Co-ordinate Reference:	Well Big Burro 27 State Com 134H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3339+22 @ 3361.00usft
Site:	Big Burro 27 State Com	MD Reference:	3339+22 @ 3361.00usft
Well:	Big Burro 27 State Com 134H	North Reference:	Grid
Wellbore:	134H	Survey Calculation Method:	Minimum Curvature
Design:	DRL	Database:	EDM 5000.14 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,059.00	8,013.28	-730.16	80.82	KOP: 8059.00' MD, -75.59' VS, 8013.28' TVD
8,269.00	8,216.00	-725.14	33.54	100FEL: 8269.00' MD, -28.35' VS, 8216.00' TVD
8,887.00	8,574.82	-708.22	-427.41	EOC: 8887.00' MD, 432.47' VS, 8574.82' TVD
18,671.00	8,404.84	-798.73	-10,204.78	100FWL: 18671.00' MD, 10210.24' VS, 8404.83' TVD
18,686.00	8,403.37	-799.21	-10,219.70	Final MWD Survey: 18686.00' MD, 95.68°INC, 268.13°AZ
18,745.00	8,397.53	-801.13	-10,278.38	PTB: 18745.00' MD, 95.68°INC, 268.13°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 112397

ACKNOWLEDGMENTS

Operator: COLGATE OPERATING, LLC 300 North Marienfeld Street Midland, TX 79701	OGRID: 371449
	Action Number: 112397
	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 112397

CONDITIONS

Operator: COLGATE OPERATING, LLC 300 North Marienfeld Street Midland, TX 79701	OGRID: 371449
	Action Number: 112397
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
jagarcia	Please see corrected property code for submitted C-115 production data	6/22/2022
jagarcia	RT expires 9/1/2022	6/22/2022