

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

Form C-101
August 1, 2011
Permit 278716

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address COLGATE OPERATING, LLC 306 W Wall Street Midland, TX 79701		2. OGRID Number 371449
		3. API Number 30-015-46766
4. Property Code 327171	5. Property Name Big Burro 27 State Com	6. Well No. 133H

7. Surface Location

UL - Lot I	Section 27	Township 19S	Range 28E	Lot Idn I	Feet From 2015	N/S Line S	Feet From 520	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot L	Section 28	Township 19S	Range 28E	Lot Idn L	Feet From 1750	N/S Line S	Feet From 10	E/W Line W	County Eddy
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9. Pool Information

WINCHESTER; BONE SPRING, WEST	97569
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3336
16. Multiple N	17. Proposed Depth 18834	18. Formation Bone Spring	19. Contractor	20. Spud Date 3/6/2020
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	200	131	0
Int1	12.25	9.625	36	3050	854	0
Prod	8.75	5.5	20	18834	4069	2050

Casing/Cement Program: Additional Comments

Production casing grade is HCP-110 Fluid type: Surface - Fresh water Spud Mud; Int1 - Brine Water; Prod - Cut-brine poly-oil mud
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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	10000	5000	Shaffer
Double Ram	10000	5000	Shaffer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. Signature:	OIL CONSERVATION DIVISION
Printed Name: Electronically filed by Mikah Thomas	Approved By: Raymond Podany
Title: Operations Tech	Title: Geologist
Email Address: mthomas@colgateenergy.com	Approved Date: 2/25/2020
Date: 2/21/2020	Expiration Date: 2/25/2022
Phone: 432-695-4272	Conditions of Approval Attached

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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-		² Pool Code 97569		³ Pool Name WINCHESTER; BONE SPRING, WEST	
⁴ Property Code		⁵ Property Name BIG BURRO 27 STATE COM			⁶ Well Number 133H
⁷ OGRID No. 371449		⁸ Operator Name COLGATE OPERATING, LLC			⁹ Elevation 3336.9

¹⁰ Surface Location

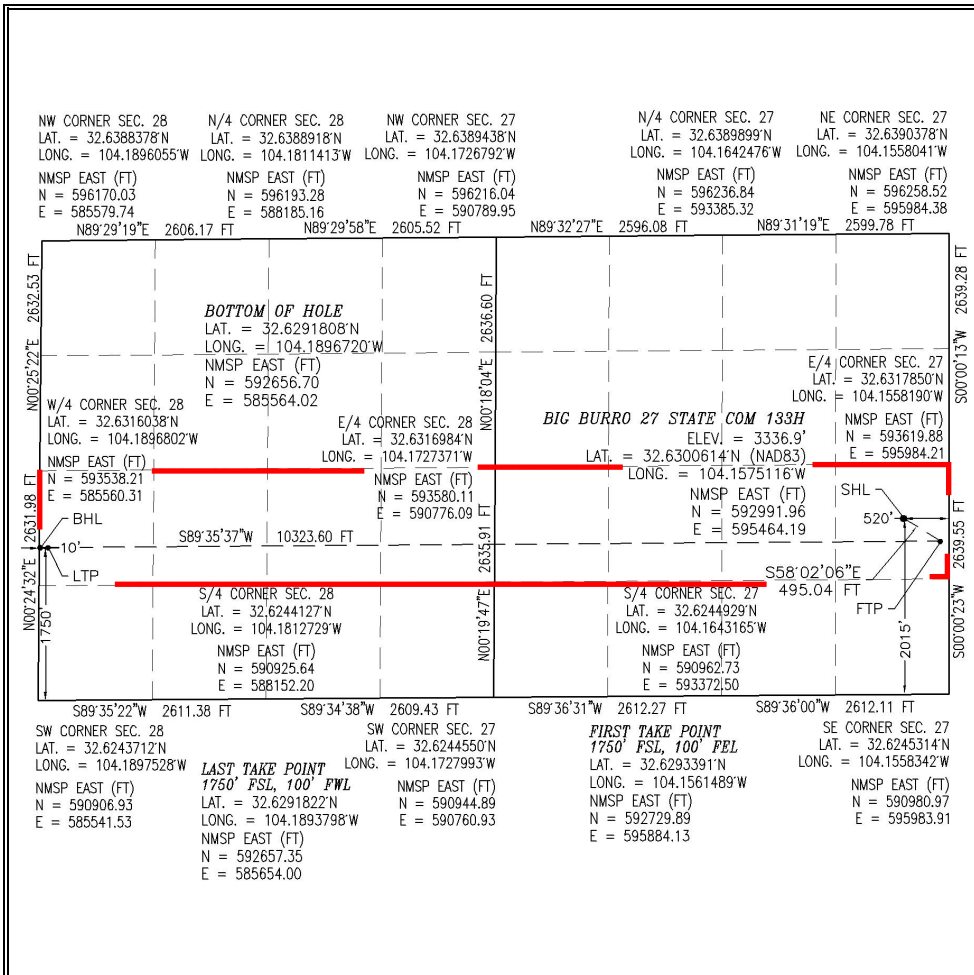
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	27	19 S	28 E		2015	SOUTH	520	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	28	19 S	28 E		1750	SOUTH	10	WEST	EDDY

¹² Dedicated Acres 320.00	¹³ Joint or Infill	¹⁴ Consolidation Code C	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



¹⁷ OPERATOR CERTIFICATION

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

2-20-20

Signature _____ Date _____
BRIAN WOOD

Printed Name _____
brian@permitswest.com

E-mail Address _____
505 466-8120

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.

JANUARY 28, 2020

Date of Survey _____

Signature and Seal of Professional Surveyor: _____

Certificate Number: **12797**

Professional Surveyor: **MONTE J. JARAMILA**

Survey No. **7922**

Intent YES As Drilled

API #

Operator Name: COLGATE ENERGY LLC	Property Name: BIG BURRO 27 STATE COM	Well Number 133H
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Kick Off Point (KOP)

UL I	Section 27	Township 19S	Range 28E	Lot	Feet 2015	From N/S SOUTH	Feet 520	From E/W EAST	County EDDY
Latitude 32.6300614					Longitude 104.1575116				NAD 83

First Take Point (FTP)

UL I	Section 27	Township 19S	Range 28E	Lot	Feet 1750	From N/S SOUTH	Feet 100	From E/W EAST	County EDDY
Latitude 32.6293391					Longitude 104.1561489				NAD 83

Last Take Point (LTP)

UL L	Section 28	Township 19S	Range 28E	Lot	Feet 1750	From N/S SOUTH	Feet 100	From E/W WEST	County EDDY
Latitude 32.6291822					Longitude 104.1893798				NAD 83

Is this well the defining well for the Horizontal Spacing Unit? YES

Is this well an infill well? NO

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number
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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

GAS CAPTURE PLAN

Date: 2/25/2020

Original Operator & OGRID No.: [371449] COLGATE OPERATING, LLC

Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Big Burro 27 State Com #133H	30-015-46766	I-27-19S-28E	2015S 0520E	3000	Flared	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP OPERATING COMPANY, LP and will be connected to DCP OPERATING COMPANY, LP High Pressure gathering system located in Eddy County, New Mexico. It will require 4100' of pipeline to connect the facility to High Pressure gathering system. COLGATE OPERATING, LLC provides (periodically) to DCP OPERATING COMPANY, LP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, COLGATE OPERATING, LLC and DCP OPERATING COMPANY, LP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP OPERATING COMPANY, LP Processing Plant located in Sec. 27, Twn. 19S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP OPERATING COMPANY, LP system at that time. Based on current information, it is COLGATE OPERATING, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Form APD Comments

Permit 278716

PERMIT COMMENTS

Operator Name and Address: COLGATE OPERATING, LLC [371449] 306 W Wall Street Midland, TX 79701	API Number: 30-015-46766
	Well: Big Burro 27 State Com #133H

Created By	Comment	Comment Date
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Form APD Conditions

Permit 278716

PERMIT CONDITIONS OF APPROVAL

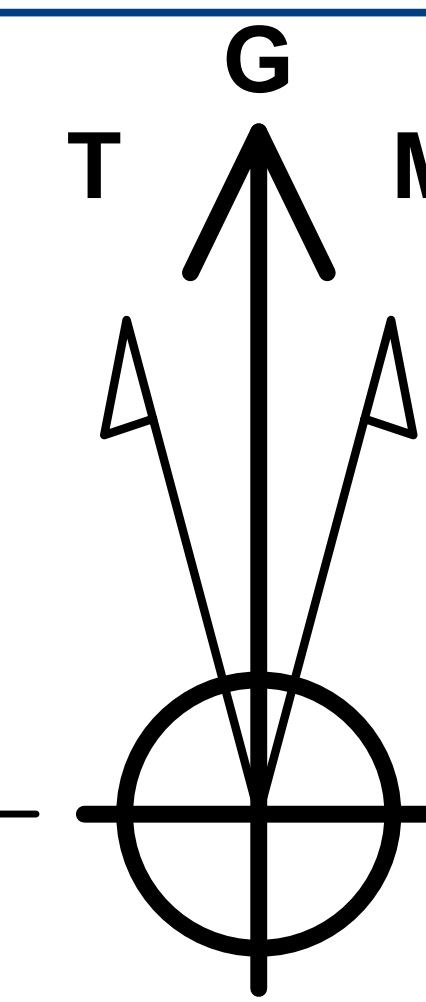
Operator Name and Address: COLGATE OPERATING, LLC [371449] 306 W Wall Street Midland, TX 79701	API Number: 30-015-46766
	Well: Big Burro 27 State Com #133H

OCD Reviewer	Condition
ksimmons	Will require a directional survey with the C-104
ksimmons	Cement is required to circulate on both surface and production strings of casing



WELL DETAILS: Big Burro 27 State Com 133H

Northing	Easting	Latitude	Longitude	Slot
592991.96	595464.19	32.63006138	-104.15751156	



Azimuths to Grid North
 True North: -0.09°
 Magnetic North: 6.91°

Magnetic Field
 Strength: 47812.6snT
 Dip Angle: 60.23°
 Date: 2/12/2020
 Model: IGRF2020

PROJECT DETAILS: Eddy County, NM (N83-NME)
 Well Name: Big Burro 27 State Com 133H
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level
 Local North: Grid
 KB Elevation: KB @ 3362.00usft (Permit)
 Elevation: 3337.00

Site: Big Burro 27 State Com
 Well: Big Burro 27 State Com 133H
 Wellbore: OH
 Plan: Plan #1

Section Details

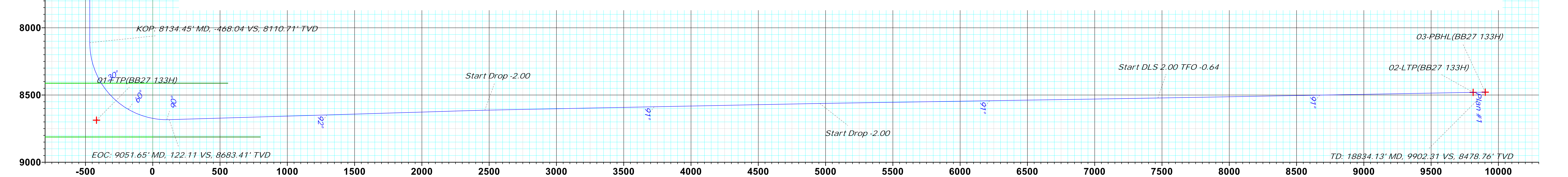
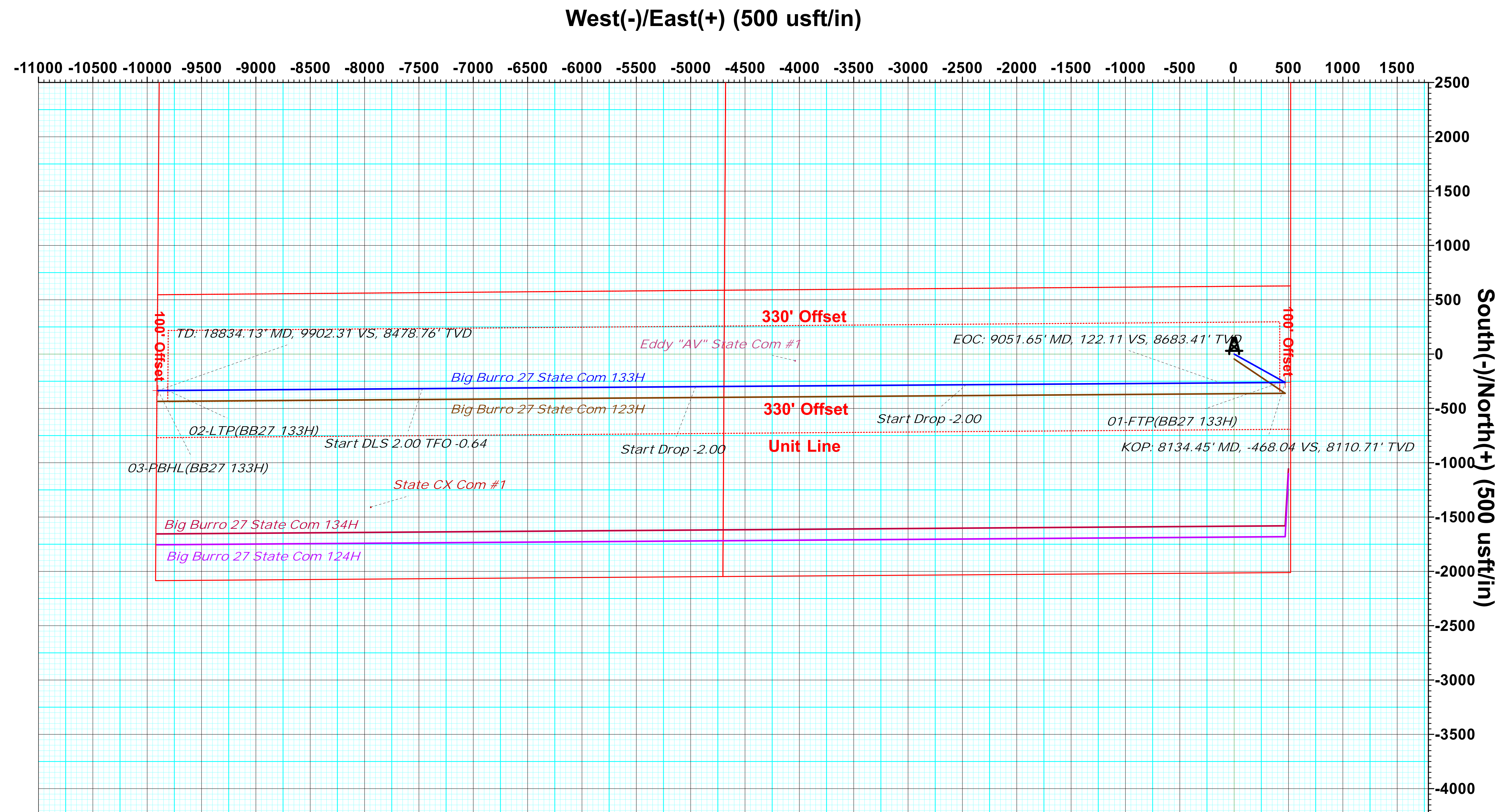
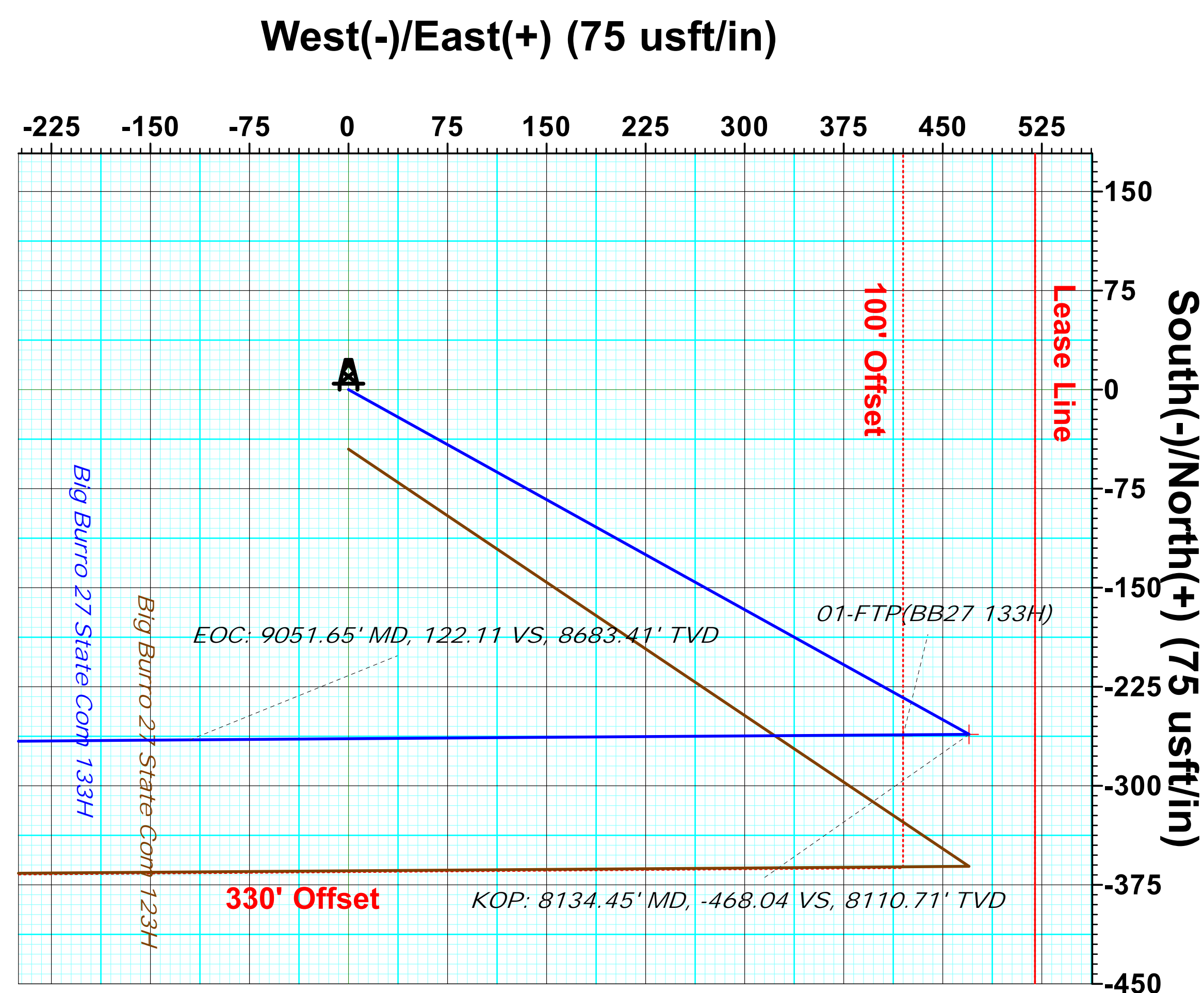
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00
3	1543.80	5.16	119.05	1543.34	-7.51	13.52	1.50	119.05	-13.46
4	7179.94	5.16	119.05	7156.66	-253.49	456.40	0.00	0.00	-454.58
5	7523.74	0.00	0.00	7500.00	-261.00	469.92	1.50	180.00	-468.04
6	8134.45	0.00	0.00	8110.71	-261.00	469.92	0.00	0.00	-468.04
7	9051.65	91.72	269.59	8683.41	-265.22	-120.22	10.00	269.59	122.12
8	11398.59	91.72	269.59	8612.97	-282.01	-2466.05	0.00	0.00	2468.00
9	11427.09	91.15	269.59	8612.25	-282.21	-2494.54	2.00	180.00	2496.49
10	13888.10	91.15	269.59	8562.86	-299.82	-4954.98	0.00	0.00	4957.00
11	13899.60	90.92	269.59	8562.65	-299.90	-4966.48	2.00	180.00	4968.50
12	16401.42	90.92	269.59	8522.48	-317.80	-7467.92	0.00	0.00	7470.00
13	16406.92	91.03	269.59	8522.39	-317.84	-7473.41	2.00	-0.64	7475.50
14	18834.13	91.03	269.59	8478.76	-335.26	-9900.17	0.00	0.00	9902.32

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
139.00	139.00	Rustler
247.00	247.00	Top of Salt
579.00	579.00	Base of Salt
816.00	816.00	Yates
2082.00	2084.65	Capitan
2585.00	2589.70	DLWR Mnt. Group
3305.00	3312.62	Lower Brushy Canyon
3912.00	3922.09	Bone Spring Lime
6387.00	6407.15	1st Bone Spring SD
6537.00	6557.76	2nd Bone Spring LM
7312.00	7335.67	2nd Bone Spring SD
7632.00	7655.74	3rd Bone Spring LM
8412.00	8451.71	3rd Bone Spring SD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
00-EON(BB27 133H)	7500.00	-261.00	469.92	592730.96	595934.11	32.62934182	-104.15598653
01-FTP(BB27 133H)	8687.00	-262.07	419.94	592729.89	595884.13	32.62933911	-104.15614888
02-LTP(BB27 133H)	8480.38	-334.61	-9810.19	592657.35	585654.00	32.62918221	-104.18937975
03-PBHL(BB27 133H)	8478.76	-335.26	-9900.17	592656.70	585564.02	32.62918076	-104.18967203





Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Big Burro 27 State Com 133H
Company:	Colgate Energy	TVD Reference:	KB @ 3362.00usft (Permit)
Project:	Eddy County, NM (N83-NME)	MD Reference:	KB @ 3362.00usft (Permit)
Site:	Big Burro 27 State Com	North Reference:	Grid
Well:	Big Burro 27 State Com 133H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	Latitude:	32.62993761	
From: Map	Easting:	595,464.19 usft	Longitude:	-104.15751180	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.09 °

Well	Big Burro 27 State Com 133H					
Well Position	+N/-S	45.03 usft	Northing:	592,991.96 usft	Latitude:	32.63006138
	+E/-W	0.00 usft	Easting:	595,464.19 usft	Longitude:	-104.15751156
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,337.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/12/2020	7.00	60.23	47,812.63279253

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	269.59

Plan Survey Tool Program	Date	2/13/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,834.13 Plan #1 (OH)	OWSG MWD Rev 4	
			OWSG MWD - Standard	



Planning Report

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Project:	Eddy County, NM (N83-NME)	MD Reference:	KB @ 3362.00usft (Permit)
Site:	Big Burro 27 State Com	North Reference:	Grid
Well:	Big Burro 27 State Com 133H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,543.80	5.16	119.05	1,543.34	-7.51	13.52	1.50	1.50	0.00	119.05	
7,179.94	5.16	119.05	7,156.66	-253.49	456.40	0.00	0.00	0.00	0.00	
7,523.74	0.00	0.00	7,500.00	-261.00	469.92	1.50	-1.50	0.00	180.00	00-EON(BB27 133H)
8,134.45	0.00	0.00	8,110.71	-261.00	469.92	0.00	0.00	0.00	0.00	
9,051.65	91.72	269.59	8,683.41	-265.22	-120.22	10.00	10.00	0.00	269.59	
11,398.59	91.72	269.59	8,612.97	-282.01	-2,466.05	0.00	0.00	0.00	0.00	
11,427.09	91.15	269.59	8,612.25	-282.21	-2,494.54	2.00	-2.00	0.00	180.00	
13,888.10	91.15	269.59	8,562.86	-299.82	-4,954.98	0.00	0.00	0.00	0.00	
13,899.60	90.92	269.59	8,562.65	-299.90	-4,966.48	2.00	-2.00	0.00	180.00	
16,401.42	90.92	269.59	8,522.48	-317.80	-7,467.92	0.00	0.00	0.00	0.00	
16,406.92	91.03	269.59	8,522.39	-317.84	-7,473.41	2.00	2.00	-0.02	-0.64	
18,834.13	91.03	269.59	8,478.76	-335.26	-9,900.17	0.00	0.00	0.00	0.00	03-PBHL(BB27 133H)



Planning Report

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Project:	Eddy County, NM (N83-NME)	MD Reference:	KB @ 3362.00usft (Permit)
Site:	Big Burro 27 State Com	North Reference:	Grid
Well:	Big Burro 27 State Com 133H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned 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	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139.00	0.00	0.00	139.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler										
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.00	0.00	0.00	247.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Top of Salt										
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
579.00	0.00	0.00	579.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt										
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
816.00	0.00	0.00	816.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Yates										
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	1.50	119.05	1,299.99	-0.64	1.14	-1.14	1.50	1.50	0.00	0.00
1,400.00	3.00	119.05	1,399.91	-2.54	4.58	-4.56	1.50	1.50	0.00	0.00
1,500.00	4.50	119.05	1,499.69	-5.72	10.29	-10.25	1.50	1.50	0.00	0.00
1,543.80	5.16	119.05	1,543.34	-7.51	13.52	-13.46	1.50	1.50	0.00	0.00
1,600.00	5.16	119.05	1,599.31	-9.96	17.93	-17.86	0.00	0.00	0.00	0.00
1,700.00	5.16	119.05	1,698.90	-14.32	25.79	-25.69	0.00	0.00	0.00	0.00
1,800.00	5.16	119.05	1,798.50	-18.69	33.65	-33.51	0.00	0.00	0.00	0.00
1,900.00	5.16	119.05	1,898.09	-23.05	41.51	-41.34	0.00	0.00	0.00	0.00
2,000.00	5.16	119.05	1,997.69	-27.42	49.36	-49.17	0.00	0.00	0.00	0.00
2,084.65	5.16	119.05	2,082.00	-31.11	56.02	-55.79	0.00	0.00	0.00	0.00
Capitan										
2,100.00	5.16	119.05	2,097.28	-31.78	57.22	-56.99	0.00	0.00	0.00	0.00
2,200.00	5.16	119.05	2,196.88	-36.15	65.08	-64.82	0.00	0.00	0.00	0.00
2,300.00	5.16	119.05	2,296.47	-40.51	72.94	-72.65	0.00	0.00	0.00	0.00
2,400.00	5.16	119.05	2,396.07	-44.88	80.80	-80.47	0.00	0.00	0.00	0.00
2,500.00	5.16	119.05	2,495.67	-49.24	88.65	-88.30	0.00	0.00	0.00	0.00
2,589.70	5.16	119.05	2,585.00	-53.15	95.70	-95.32	0.00	0.00	0.00	0.00
DLWR Mnt. Group										
2,600.00	5.16	119.05	2,595.26	-53.60	96.51	-96.13	0.00	0.00	0.00	0.00
2,700.00	5.16	119.05	2,694.86	-57.97	104.37	-103.95	0.00	0.00	0.00	0.00
2,800.00	5.16	119.05	2,794.45	-62.33	112.23	-111.78	0.00	0.00	0.00	0.00
2,900.00	5.16	119.05	2,894.05	-66.70	120.09	-119.61	0.00	0.00	0.00	0.00
3,000.00	5.16	119.05	2,993.64	-71.06	127.94	-127.43	0.00	0.00	0.00	0.00
3,100.00	5.16	119.05	3,093.24	-75.43	135.80	-135.26	0.00	0.00	0.00	0.00
3,200.00	5.16	119.05	3,192.83	-79.79	143.66	-143.09	0.00	0.00	0.00	0.00
3,300.00	5.16	119.05	3,292.43	-84.16	151.52	-150.91	0.00	0.00	0.00	0.00
3,312.62	5.16	119.05	3,305.00	-84.71	152.51	-151.90	0.00	0.00	0.00	0.00
Lower Brushy Canyon										
3,400.00	5.16	119.05	3,392.02	-88.52	159.38	-158.74	0.00	0.00	0.00	0.00
3,500.00	5.16	119.05	3,491.62	-92.88	167.23	-166.57	0.00	0.00	0.00	0.00
3,600.00	5.16	119.05	3,591.21	-97.25	175.09	-174.39	0.00	0.00	0.00	0.00
3,700.00	5.16	119.05	3,690.81	-101.61	182.95	-182.22	0.00	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Big Burro 27 State Com 133H
Company:	Colgate Energy	TVD Reference:	KB @ 3362.00usft (Permit)
Project:	Eddy County, NM (N83-NME)	MD Reference:	KB @ 3362.00usft (Permit)
Site:	Big Burro 27 State Com	North Reference:	Grid
Well:	Big Burro 27 State Com 133H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned 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)	
3,800.00	5.16	119.05	3,790.40	-105.98	190.81	-190.04	0.00	0.00	0.00	
3,900.00	5.16	119.05	3,890.00	-110.34	198.67	-197.87	0.00	0.00	0.00	
3,922.09	5.16	119.05	3,912.00	-111.31	200.40	-199.60	0.00	0.00	0.00	
Bone Spring Lime										
4,000.00	5.16	119.05	3,989.59	-114.71	206.52	-205.70	0.00	0.00	0.00	
4,100.00	5.16	119.05	4,089.19	-119.07	214.38	-213.52	0.00	0.00	0.00	
4,200.00	5.16	119.05	4,188.78	-123.44	222.24	-221.35	0.00	0.00	0.00	
4,300.00	5.16	119.05	4,288.38	-127.80	230.10	-229.18	0.00	0.00	0.00	
4,400.00	5.16	119.05	4,387.97	-132.16	237.96	-237.00	0.00	0.00	0.00	
4,500.00	5.16	119.05	4,487.57	-136.53	245.81	-244.83	0.00	0.00	0.00	
4,600.00	5.16	119.05	4,587.16	-140.89	253.67	-252.66	0.00	0.00	0.00	
4,700.00	5.16	119.05	4,686.76	-145.26	261.53	-260.48	0.00	0.00	0.00	
4,800.00	5.16	119.05	4,786.36	-149.62	269.39	-268.31	0.00	0.00	0.00	
4,900.00	5.16	119.05	4,885.95	-153.99	277.25	-276.14	0.00	0.00	0.00	
5,000.00	5.16	119.05	4,985.55	-158.35	285.10	-283.96	0.00	0.00	0.00	
5,100.00	5.16	119.05	5,085.14	-162.72	292.96	-291.79	0.00	0.00	0.00	
5,200.00	5.16	119.05	5,184.74	-167.08	300.82	-299.62	0.00	0.00	0.00	
5,300.00	5.16	119.05	5,284.33	-171.44	308.68	-307.44	0.00	0.00	0.00	
5,400.00	5.16	119.05	5,383.93	-175.81	316.54	-315.27	0.00	0.00	0.00	
5,500.00	5.16	119.05	5,483.52	-180.17	324.39	-323.10	0.00	0.00	0.00	
5,600.00	5.16	119.05	5,583.12	-184.54	332.25	-330.92	0.00	0.00	0.00	
5,700.00	5.16	119.05	5,682.71	-188.90	340.11	-338.75	0.00	0.00	0.00	
5,800.00	5.16	119.05	5,782.31	-193.27	347.97	-346.58	0.00	0.00	0.00	
5,900.00	5.16	119.05	5,881.90	-197.63	355.82	-354.40	0.00	0.00	0.00	
6,000.00	5.16	119.05	5,981.50	-201.99	363.68	-362.23	0.00	0.00	0.00	
6,100.00	5.16	119.05	6,081.09	-206.36	371.54	-370.05	0.00	0.00	0.00	
6,200.00	5.16	119.05	6,180.69	-210.72	379.40	-377.88	0.00	0.00	0.00	
6,300.00	5.16	119.05	6,280.28	-215.09	387.26	-385.71	0.00	0.00	0.00	
6,400.00	5.16	119.05	6,379.88	-219.45	395.11	-393.53	0.00	0.00	0.00	
6,407.15	5.16	119.05	6,387.00	-219.76	395.68	-394.09	0.00	0.00	0.00	
1st Bone Spring SD										
6,500.00	5.16	119.05	6,479.47	-223.82	402.97	-401.36	0.00	0.00	0.00	
6,557.76	5.16	119.05	6,537.00	-226.34	407.51	-405.88	0.00	0.00	0.00	
2nd Bone Spring LM										
6,600.00	5.16	119.05	6,579.07	-228.18	410.83	-409.19	0.00	0.00	0.00	
6,700.00	5.16	119.05	6,678.66	-232.55	418.69	-417.01	0.00	0.00	0.00	
6,800.00	5.16	119.05	6,778.26	-236.91	426.55	-424.84	0.00	0.00	0.00	
6,900.00	5.16	119.05	6,877.85	-241.27	434.40	-432.67	0.00	0.00	0.00	
7,000.00	5.16	119.05	6,977.45	-245.64	442.26	-440.49	0.00	0.00	0.00	
7,100.00	5.16	119.05	7,077.04	-250.00	450.12	-448.32	0.00	0.00	0.00	
7,179.94	5.16	119.05	7,156.66	-253.49	456.40	-454.58	0.00	0.00	0.00	
7,200.00	4.86	119.05	7,176.64	-254.34	457.93	-456.10	1.50	-1.50	0.00	
7,300.00	3.36	119.05	7,276.39	-257.82	464.19	-462.34	1.50	-1.50	0.00	
7,335.67	2.82	119.05	7,312.00	-258.75	465.87	-464.01	1.50	-1.50	0.00	
2nd Bone Spring SD										
7,400.00	1.86	119.05	7,376.28	-260.03	468.17	-466.29	1.50	-1.50	0.00	
7,500.00	0.36	119.05	7,476.26	-260.96	469.85	-467.97	1.50	-1.50	0.00	
7,523.74	0.00	0.00	7,500.00	-261.00	469.92	-468.04	1.50	-1.50	0.00	
00-EON(BB27 133H)										
7,600.00	0.00	0.00	7,576.26	-261.00	469.92	-468.04	0.00	0.00	0.00	
7,655.74	0.00	0.00	7,632.00	-261.00	469.92	-468.04	0.00	0.00	0.00	
3rd Bone Spring LM										
7,700.00	0.00	0.00	7,676.26	-261.00	469.92	-468.04	0.00	0.00	0.00	



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Big Burro 27 State Com 133H
Company:	Colgate Energy	TVD Reference:	KB @ 3362.00usft (Permit)
Project:	Eddy County, NM (N83-NME)	MD Reference:	KB @ 3362.00usft (Permit)
Site:	Big Burro 27 State Com	North Reference:	Grid
Well:	Big Burro 27 State Com 133H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned 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)
7,800.00	0.00	0.00	7,776.26	-261.00	469.92	-468.04	0.00	0.00	0.00
7,900.00	0.00	0.00	7,876.26	-261.00	469.92	-468.04	0.00	0.00	0.00
8,000.00	0.00	0.00	7,976.26	-261.00	469.92	-468.04	0.00	0.00	0.00
8,100.00	0.00	0.00	8,076.26	-261.00	469.92	-468.04	0.00	0.00	0.00
8,134.45	0.00	0.00	8,110.71	-261.00	469.92	-468.04	0.00	0.00	0.00
KOP: 8134.45' MD, -468.04 VS, 8110.71' TVD									
8,150.00	1.55	269.59	8,126.26	-261.00	469.71	-467.83	10.00	10.00	0.00
8,200.00	6.55	269.59	8,176.11	-261.03	466.17	-464.29	10.00	10.00	0.00
8,250.00	11.55	269.59	8,225.48	-261.08	458.31	-456.43	10.00	10.00	0.00
8,300.00	16.55	269.59	8,273.96	-261.17	446.17	-444.29	10.00	10.00	0.00
8,350.00	21.55	269.59	8,321.21	-261.29	429.85	-427.97	10.00	10.00	0.00
8,400.00	26.55	269.59	8,366.85	-261.43	409.48	-407.60	10.00	10.00	0.00
8,450.00	31.55	269.59	8,410.55	-261.61	385.20	-383.32	10.00	10.00	0.00
8,451.71	31.73	269.59	8,412.00	-261.61	384.31	-382.43	10.00	10.00	0.00
3rd Bone Spring SD									
8,500.00	36.55	269.59	8,451.96	-261.81	357.21	-355.33	10.00	10.00	0.00
8,550.00	41.55	269.59	8,490.77	-262.03	325.72	-323.84	10.00	10.00	0.00
8,600.00	46.55	269.59	8,526.70	-262.28	290.97	-289.08	10.00	10.00	0.00
8,607.64	47.32	269.59	8,531.91	-262.32	285.39	-283.50	10.00	10.00	0.00
01-FTP(BB27 133H)									
8,650.00	51.55	269.59	8,559.45	-262.55	253.21	-251.33	10.00	10.00	0.00
8,700.00	56.55	269.59	8,588.79	-262.84	212.75	-210.86	10.00	10.00	0.00
8,750.00	61.55	269.59	8,614.50	-263.15	169.88	-167.99	10.00	10.00	0.00
8,800.00	66.55	269.59	8,636.36	-263.47	124.93	-123.05	10.00	10.00	0.00
8,850.00	71.55	269.59	8,654.23	-263.80	78.25	-76.36	10.00	10.00	0.00
8,900.00	76.55	269.59	8,667.96	-264.15	30.19	-28.30	10.00	10.00	0.00
8,950.00	81.55	269.59	8,677.46	-264.50	-18.88	20.77	10.00	10.00	0.00
9,000.00	86.55	269.59	8,682.63	-264.85	-68.59	70.49	10.00	10.00	0.00
9,051.65	91.72	269.59	8,683.41	-265.22	-120.22	122.11	10.00	10.00	0.00
EOC: 9051.65' MD, 122.11 VS, 8683.41' TVD									
9,100.00	91.72	269.59	8,681.96	-265.57	-168.55	170.44	0.00	0.00	0.00
9,200.00	91.72	269.59	8,678.96	-266.28	-268.50	270.40	0.00	0.00	0.00
9,300.00	91.72	269.59	8,675.96	-267.00	-368.45	370.35	0.00	0.00	0.00
9,400.00	91.72	269.59	8,672.95	-267.71	-468.40	470.31	0.00	0.00	0.00
9,500.00	91.72	269.59	8,669.95	-268.43	-568.35	570.26	0.00	0.00	0.00
9,600.00	91.72	269.59	8,666.95	-269.15	-668.31	670.22	0.00	0.00	0.00
9,700.00	91.72	269.59	8,663.95	-269.86	-768.26	770.17	0.00	0.00	0.00
9,800.00	91.72	269.59	8,660.95	-270.58	-868.21	870.13	0.00	0.00	0.00
9,900.00	91.72	269.59	8,657.95	-271.29	-968.16	970.08	0.00	0.00	0.00
10,000.00	91.72	269.59	8,654.95	-272.01	-1,068.12	1,070.04	0.00	0.00	0.00
10,100.00	91.72	269.59	8,651.94	-272.72	-1,168.07	1,169.99	0.00	0.00	0.00
10,200.00	91.72	269.59	8,648.94	-273.44	-1,268.02	1,269.95	0.00	0.00	0.00
10,300.00	91.72	269.59	8,645.94	-274.15	-1,367.97	1,369.90	0.00	0.00	0.00
10,400.00	91.72	269.59	8,642.94	-274.87	-1,467.93	1,469.86	0.00	0.00	0.00
10,500.00	91.72	269.59	8,639.94	-275.58	-1,567.88	1,569.81	0.00	0.00	0.00
10,600.00	91.72	269.59	8,636.94	-276.30	-1,667.83	1,669.77	0.00	0.00	0.00
10,700.00	91.72	269.59	8,633.93	-277.01	-1,767.78	1,769.72	0.00	0.00	0.00
10,800.00	91.72	269.59	8,630.93	-277.73	-1,867.74	1,869.68	0.00	0.00	0.00
10,900.00	91.72	269.59	8,627.93	-278.44	-1,967.69	1,969.63	0.00	0.00	0.00
11,000.00	91.72	269.59	8,624.93	-279.16	-2,067.64	2,069.59	0.00	0.00	0.00
11,100.00	91.72	269.59	8,621.93	-279.87	-2,167.59	2,169.54	0.00	0.00	0.00
11,200.00	91.72	269.59	8,618.93	-280.59	-2,267.55	2,269.50	0.00	0.00	0.00
11,300.00	91.72	269.59	8,615.93	-281.30	-2,367.50	2,369.45	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Big Burro 27 State Com 133H
Company:	Colgate Energy	TVD Reference:	KB @ 3362.00usft (Permit)
Project:	Eddy County, NM (N83-NME)	MD Reference:	KB @ 3362.00usft (Permit)
Site:	Big Burro 27 State Com	North Reference:	Grid
Well:	Big Burro 27 State Com 133H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned 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)	
11,398.59	91.72	269.59	8,612.97	-282.01	-2,466.04	2,468.00	0.00	0.00	0.00	
Start Drop -2.00										
11,400.00	91.69	269.59	8,612.92	-282.02	-2,467.45	2,469.41	1.99	-1.99	0.00	
11,427.09	91.15	269.59	8,612.25	-282.21	-2,494.54	2,496.49	2.00	-2.00	0.00	
11,500.00	91.15	269.59	8,610.79	-282.74	-2,567.42	2,569.38	0.00	0.00	0.00	
11,600.00	91.15	269.59	8,608.78	-283.45	-2,667.40	2,669.36	0.00	0.00	0.00	
11,700.00	91.15	269.59	8,606.78	-284.17	-2,767.38	2,769.34	0.00	0.00	0.00	
11,800.00	91.15	269.59	8,604.77	-284.88	-2,867.36	2,869.32	0.00	0.00	0.00	
11,900.00	91.15	269.59	8,602.76	-285.60	-2,967.33	2,969.30	0.00	0.00	0.00	
12,000.00	91.15	269.59	8,600.75	-286.31	-3,067.31	3,069.28	0.00	0.00	0.00	
12,100.00	91.15	269.59	8,598.75	-287.03	-3,167.29	3,169.26	0.00	0.00	0.00	
12,200.00	91.15	269.59	8,596.74	-287.74	-3,267.27	3,269.24	0.00	0.00	0.00	
12,300.00	91.15	269.59	8,594.73	-288.46	-3,367.24	3,369.22	0.00	0.00	0.00	
12,400.00	91.15	269.59	8,592.72	-289.17	-3,467.22	3,469.20	0.00	0.00	0.00	
12,500.00	91.15	269.59	8,590.72	-289.89	-3,567.20	3,569.18	0.00	0.00	0.00	
12,600.00	91.15	269.59	8,588.71	-290.60	-3,667.17	3,669.16	0.00	0.00	0.00	
12,700.00	91.15	269.59	8,586.71	-291.32	-3,767.15	3,769.14	0.00	0.00	0.00	
12,800.00	91.15	269.59	8,584.70	-292.04	-3,867.13	3,869.12	0.00	0.00	0.00	
12,900.00	91.15	269.59	8,582.69	-292.75	-3,967.11	3,969.10	0.00	0.00	0.00	
13,000.00	91.15	269.59	8,580.68	-293.47	-4,067.08	4,069.08	0.00	0.00	0.00	
13,100.00	91.15	269.59	8,578.68	-294.18	-4,167.06	4,169.06	0.00	0.00	0.00	
13,200.00	91.15	269.59	8,576.67	-294.90	-4,267.04	4,269.04	0.00	0.00	0.00	
13,300.00	91.15	269.59	8,574.66	-295.61	-4,367.02	4,369.02	0.00	0.00	0.00	
13,400.00	91.15	269.59	8,572.66	-296.33	-4,466.99	4,469.00	0.00	0.00	0.00	
13,500.00	91.15	269.59	8,570.65	-297.04	-4,566.97	4,568.98	0.00	0.00	0.00	
13,600.00	91.15	269.59	8,568.64	-297.76	-4,666.95	4,668.96	0.00	0.00	0.00	
13,700.00	91.15	269.59	8,566.64	-298.47	-4,766.93	4,768.94	0.00	0.00	0.00	
13,800.00	91.15	269.59	8,564.63	-299.19	-4,866.90	4,868.92	0.00	0.00	0.00	
13,888.10	91.15	269.59	8,562.86	-299.82	-4,954.98	4,957.00	0.00	0.00	0.00	
Start Drop -2.00										
13,899.60	90.92	269.59	8,562.65	-299.90	-4,966.48	4,968.50	2.00	-2.00	0.00	
14,000.00	90.92	269.59	8,561.04	-300.62	-5,066.86	5,068.89	0.00	0.00	0.00	
14,100.00	90.92	269.59	8,559.43	-301.34	-5,166.85	5,168.87	0.00	0.00	0.00	
14,200.00	90.92	269.59	8,557.83	-302.05	-5,266.83	5,268.86	0.00	0.00	0.00	
14,300.00	90.92	269.59	8,556.22	-302.77	-5,366.82	5,368.85	0.00	0.00	0.00	
14,400.00	90.92	269.59	8,554.62	-303.48	-5,466.80	5,468.83	0.00	0.00	0.00	
14,500.00	90.92	269.59	8,553.01	-304.20	-5,566.79	5,568.82	0.00	0.00	0.00	
14,600.00	90.92	269.59	8,551.41	-304.91	-5,666.77	5,668.81	0.00	0.00	0.00	
14,700.00	90.92	269.59	8,549.80	-305.63	-5,766.76	5,768.80	0.00	0.00	0.00	
14,800.00	90.92	269.59	8,548.20	-306.34	-5,866.74	5,868.78	0.00	0.00	0.00	
14,900.00	90.92	269.59	8,546.59	-307.06	-5,966.73	5,968.77	0.00	0.00	0.00	
15,000.00	90.92	269.59	8,544.98	-307.78	-6,066.71	6,068.76	0.00	0.00	0.00	
15,100.00	90.92	269.59	8,543.38	-308.49	-6,166.69	6,168.74	0.00	0.00	0.00	
15,200.00	90.92	269.59	8,541.77	-309.21	-6,266.68	6,268.73	0.00	0.00	0.00	
15,300.00	90.92	269.59	8,540.17	-309.92	-6,366.66	6,368.72	0.00	0.00	0.00	
15,400.00	90.92	269.59	8,538.56	-310.64	-6,466.65	6,468.71	0.00	0.00	0.00	
15,500.00	90.92	269.59	8,536.96	-311.35	-6,566.63	6,568.69	0.00	0.00	0.00	
15,600.00	90.92	269.59	8,535.35	-312.07	-6,666.62	6,668.68	0.00	0.00	0.00	
15,700.00	90.92	269.59	8,533.74	-312.78	-6,766.60	6,768.67	0.00	0.00	0.00	
15,800.00	90.92	269.59	8,532.14	-313.50	-6,866.59	6,868.65	0.00	0.00	0.00	
15,900.00	90.92	269.59	8,530.53	-314.22	-6,966.57	6,968.64	0.00	0.00	0.00	
16,000.00	90.92	269.59	8,528.93	-314.93	-7,066.56	7,068.63	0.00	0.00	0.00	
16,100.00	90.92	269.59	8,527.32	-315.65	-7,166.54	7,168.62	0.00	0.00	0.00	
16,200.00	90.92	269.59	8,525.72	-316.36	-7,266.52	7,268.60	0.00	0.00	0.00	



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Big Burro 27 State Com 133H
Company:	Colgate Energy	TVD Reference:	KB @ 3362.00usft (Permit)
Project:	Eddy County, NM (N83-NME)	MD Reference:	KB @ 3362.00usft (Permit)
Site:	Big Burro 27 State Com	North Reference:	Grid
Well:	Big Burro 27 State Com 133H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned 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)
16,300.00	90.92	269.59	8,524.11	-317.08	-7,366.51	7,368.59	0.00	0.00	0.00
16,401.42	90.92	269.59	8,522.48	-317.80	-7,467.91	7,470.00	0.00	0.00	0.00
Start DLS 2.00 TFO -0.64									
16,406.92	91.03	269.59	8,522.39	-317.84	-7,473.41	7,475.50	2.00	2.00	-0.02
16,500.00	91.03	269.59	8,520.72	-318.51	-7,566.48	7,568.56	0.00	0.00	0.00
16,600.00	91.03	269.59	8,518.92	-319.23	-7,666.46	7,668.54	0.00	0.00	0.00
16,700.00	91.03	269.59	8,517.12	-319.95	-7,766.44	7,768.53	0.00	0.00	0.00
16,800.00	91.03	269.59	8,515.32	-320.66	-7,866.42	7,868.51	0.00	0.00	0.00
16,900.00	91.03	269.59	8,513.53	-321.38	-7,966.40	7,968.50	0.00	0.00	0.00
17,000.00	91.03	269.59	8,511.73	-322.10	-8,066.38	8,068.48	0.00	0.00	0.00
17,100.00	91.03	269.59	8,509.93	-322.82	-8,166.36	8,168.46	0.00	0.00	0.00
17,200.00	91.03	269.59	8,508.13	-323.53	-8,266.34	8,268.45	0.00	0.00	0.00
17,300.00	91.03	269.59	8,506.34	-324.25	-8,366.33	8,368.43	0.00	0.00	0.00
17,400.00	91.03	269.59	8,504.54	-324.97	-8,466.31	8,468.42	0.00	0.00	0.00
17,500.00	91.03	269.59	8,502.74	-325.69	-8,566.29	8,568.40	0.00	0.00	0.00
17,600.00	91.03	269.59	8,500.94	-326.40	-8,666.27	8,668.38	0.00	0.00	0.00
17,700.00	91.03	269.59	8,499.15	-327.12	-8,766.25	8,768.37	0.00	0.00	0.00
17,800.00	91.03	269.59	8,497.35	-327.84	-8,866.23	8,868.35	0.00	0.00	0.00
17,900.00	91.03	269.59	8,495.55	-328.56	-8,966.21	8,968.33	0.00	0.00	0.00
18,000.00	91.03	269.59	8,493.75	-329.27	-9,066.19	9,068.32	0.00	0.00	0.00
18,100.00	91.03	269.59	8,491.96	-329.99	-9,166.18	9,168.30	0.00	0.00	0.00
18,200.00	91.03	269.59	8,490.16	-330.71	-9,266.16	9,268.29	0.00	0.00	0.00
18,300.00	91.03	269.59	8,488.36	-331.43	-9,366.14	9,368.27	0.00	0.00	0.00
18,400.00	91.03	269.59	8,486.56	-332.14	-9,466.12	9,468.25	0.00	0.00	0.00
18,500.00	91.03	269.59	8,484.77	-332.86	-9,566.10	9,568.24	0.00	0.00	0.00
18,600.00	91.03	269.59	8,482.97	-333.58	-9,666.08	9,668.22	0.00	0.00	0.00
18,700.00	91.03	269.59	8,481.17	-334.30	-9,766.06	9,768.21	0.00	0.00	0.00
18,744.14	91.03	269.59	8,480.38	-334.61	-9,810.19	9,812.33	0.00	0.00	0.00
02-LTP(BB27 133H)									
18,800.00	91.03	269.59	8,479.37	-335.02	-9,866.04	9,868.19	0.00	0.00	0.00
18,834.13	91.03	269.59	8,478.76	-335.26	-9,900.17	9,902.31	0.00	0.00	0.00
TD: 18834.13' MD, 9902.31 VS, 8478.76' TVD - 03-PBHL(BB27 133H)									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
00-EON(BB27 133H) - plan hits target center - Point	0.00	0.00	7,500.00	-261.00	469.92	592,730.96	595,934.11	32.62934182	-104.15598653
03-PBHL(BB27 133H) - plan hits target center - Point	0.00	0.00	8,478.76	-335.26	-9,900.17	592,656.70	585,564.02	32.62918075	-104.18967203
02-LTP(BB27 133H) - plan hits target center - Point	0.00	0.00	8,480.38	-334.61	-9,810.19	592,657.35	585,654.00	32.62918221	-104.18937975
01-FTP(BB27 133H) - plan misses target center by 205.32usft at 8607.64usft MD (8531.91 TVD, -262.32 N, 285.39 E) - Point	0.00	0.00	8,687.00	-262.07	419.94	592,729.89	595,884.13	32.62933911	-104.15614888



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Big Burro 27 State Com 133H
Company:	Colgate Energy	TVD Reference:	KB @ 3362.00usft (Permit)
Project:	Eddy County, NM (N83-NME)	MD Reference:	KB @ 3362.00usft (Permit)
Site:	Big Burro 27 State Com	North Reference:	Grid
Well:	Big Burro 27 State Com 133H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
139.00	139.00	Rustler				
247.00	247.00	Top of Salt				
579.00	579.00	Base of Salt				
816.00	816.00	Yates				
2,084.65	2,082.00	Capitan				
2,589.70	2,585.00	DLWR Mnt. Group				
3,312.62	3,305.00	Lower Brushy Canyon				
3,922.09	3,912.00	Bone Spring Lime				
6,407.15	6,387.00	1st Bone Spring SD				
6,557.76	6,537.00	2nd Bone Spring LM				
7,335.67	7,312.00	2nd Bone Spring SD				
7,655.74	7,632.00	3rd Bone Spring LM				
8,451.71	8,412.00	3rd Bone Spring SD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
8,134.45	8,110.71	-261.00	469.92	KOP: 8134.45' MD, -468.04 VS, 8110.71' TVD	
9,051.65	8,683.41	-265.22	-120.22	EOC: 9051.65' MD, 122.11 VS, 8683.41' TVD	
11,398.59	8,612.97	-282.01	-2,466.04	Start Drop -2.00	
13,888.10	8,562.86	-299.82	-4,954.98	Start Drop -2.00	
16,401.42	8,522.48	-317.80	-7,467.91	Start DLS 2.00 TFO -0.64	
18,834.13	8,478.76	-335.26	-9,900.17	TD: 18834.13' MD, 9902.31 VS, 8478.76' TVD	