

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL

5. Lease Number

SF-079520-A

Unit Reporting Number

070 FARMINGTON NM

1b. Type of Well
GAS

6. If Indian, All. or Tribe

2. Operator
BURLINGTON

RESOURCES Oil & Gas Company

7. Unit Agreement Name

San Juan 28-5 Unit

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. Farm or Lease Name

San Juan 28-5 Unit

9. Well Number

#81M

4. Location of Well

305' FSL, 975' FWL surface

735' FSL, 1593' FEL bottom hole

10. Field, Pool, Wildcat

Blanco Mesaverde/Basin Dakota

11. Sec., Twn, Rge, Mer. (NMPM)

Latitude 36° 37.5495'N, Longitude 107° 20.0192'W Sec. 26, T28N, R5W surface

Latitude 36° 37.6198'N, Longitude 107° 19.4703'W Sec. 26, T28N, R5W bottom

API # 30-039-29555

14. Distance in Miles from Nearest Town

34.3 miles to Blanco, NM Post Office

12. County

Rio Arriba

13. State

NM

15. Distance from Proposed Location to Nearest Property or Lease Line

305'

16. Acres in Lease

17. Acres Assigned to Well

MV 320 S/2

DK 320 S/2

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease

23'

19. Proposed Depth

8536'

20. Rotary or Cable Tools

Rotary

21. Elevations (DF, FT, GR, Etc.)

6733' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program

See Operations Plan attached

24. Authorized by:

Joni Clark
Regulatory Specialist

Date

5/17/05

PERMIT NO.

APPROVAL DATE

08/04/04

APPROVED BY

Robert Adams

TITLE

Acting AFM

DATE

08/04/04

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

HOLD C104 FOR

Directional survey

NMOOD

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-	² Pool Code 72319/71599	³ Pool Name Blanco Mesaverde/Basin Dakota
⁴ Property Code 7460	⁵ Property Name SAN JUAN 28-5 UNIT	⁶ Well Number 81M
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP	⁹ Elevation 6733'

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
M	26	28N	5W		305	SOUTH	975	WEST	RIO ARriba

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
0	26	28N	5W		735	SOUTH	1593	EAST	RIO ARriba

¹² Dedicated Acres S/2 320 acres MV & DK	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

¹⁶ 5280.00' 2335' 305' 1655' 5280.00' 1905' 1038' 735' 1593' LEASE USA SF-079520-A 26 2005 MAY 20 4:17 8 21 070 FARMING RECEIVED 5287.92'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <i>Joni Clark</i> Signature Joni Clark Printed Name Sr. Regulatory Specialist Title 5-17-05 Date 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 Revised: JANUARY 20, 2005 Survey Date: SEPTEMBER 8, 2003 Signature and Seal of Professional Surveyor <i>JASON C. EDWARDS</i> Certificate Number 15269
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Office

Energy, Minerals and Natural Resources

May 27, 2004

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., 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

WELL API NO.

30-039-

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil & Gas Lease No.

SF-079520A

7. Lease Name or Unit Agreement Name

San Juan 28-5 Unit

8. Well Number

81M

9. OGRID Number

14538

10. Pool name or Wildcat

Blanco Mesaverde/Basin Dakota

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

Oil Well ☐Gas Well ☒

Other

2. Name of Operator

BURLINGTON RESOURCES OIL & GAS COMPANY LP

3. Address of Operator

3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location

Unit Letter O: 305

feet from the

South

line and

975

feet from the

West

line

Section 26Township 28NRange 5W

NMPM

County Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

Pit or Below-grade Tank Application

☒ or Closure

Pit type

New Drill

Depth to Groundwater

<100'

Distance from nearest fresh water well

>1000'

Distance from nearest surface water

> 1000'

Pit Liner Thickness:

mil

Below-Grade Tank:

Volume

bbls;

Construction Material

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:PERFORM REMEDIAL WORK ☐PLUG AND ABANDON ☐TEMPORARILY ABANDON ☐CHANGE PLANS ☐PULL OR ALTER CASING ☐MULTIPLE COMPL ☐**SUBSEQUENT REPORT OF:**REMEDIAL WORK ☐ALTERING CASING ☐COMMENCE DRILLING OPNS. ☐P AND A ☐CASING/CEMENT JOB ☐

OTHER:

New Drill ☒OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Burlington Resources proposes to construct a new drilling pit and an associated vent/flare pit. Based on Burlington's interpretation of the Ecosphere's risk ranking criteria, the new drilling pit will be a lined pit as detailed in Burlington's Revised Drilling / Workover Pit Construction / Operation Procedures dated November 11, 2004 on file at the NMOCDD office. A portion of the vent/flare pit will be designed to manage fluids and that portion will be lined as per the risk ranking criteria. Burlington Resources anticipates closing these pits according to the Drilling / Workover Pit Closure Procedure dated August 2, 2004 on file at the NMOCDD office.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCDD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE

TITLE

Sr. Regulatory Specialist

DATE

5/23/2005

Type or print name

Joni Clark

E-mail address:

jclark@br-inc.com

Telephone No.

326-9700

For State Use Only

APPROVED BY

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. 8

DATE

AUG 08 2005

Conditions of Approval (if any):

OPERATIONS PLAN

Well Name: San Juan 28-5 Unit #81M

Location: Surface 305' FSL, 975' FWL, Section 26, T-28-N, R-5-W
Bottom Hole 735' FSL, 1593' FEL, Section 26, T-28-N, R-5-W
Rio Arriba County, New Mexico
Latitude 36° 37.5495'N, Longitude 107° 20.0192'W Surface Location
Latitude 36° 37.6198'N, Longitude 107° 19.4703'W Bottom Hole Location

Formation: Blanco Mesa Verde/Basin Dakota

Elevation: 6733' GL

<u>Formation Tops:</u>	<u>TMD</u> <u>Top</u>	<u>TVD</u> <u>Top</u>	<u>TMD</u> <u>Bottom</u>	<u>Contents</u>
Surface	San Jose		3086'	
Ojo Alamo	3086'	2945'	3276'	aquifer
Kirtland	3276'	3123'	3598'	gas
Fruitland	3598'	3425'	3786'	
Pictured Cliffs	3786'	3601'	3921'	gas
Lewis	3921'	3727'	4449'	gas
Huerfanito Bentonite	4449'	4222'	4826'	gas
Chacra	4826'	4575'	5477'	gas
UpperCliff House	5477'	5185'	5695'	
Massive Cliff House	5695'	5389'	5764'	
Menefee	5764'	5454'	6123'	gas
Point Lookout	6123'	5790'	6674'	gas
Mancos	6674'	6306'	7382'	gas
Gallup	7382'	6969'	8186'	gas
Greenhorn	8186'	7722'	8257'	as
Graneros	8257'	7789'	8310'	gas
Dakota	8310'	7838'	8410'	gas
Upper Cubero	8410'	7932'	8470'	
Lower Cubero	8470'	7988'	8532'	
Oak Canyon	8532'	8046'		
TD	8547' MD	8060' TVD		

Logging Program:

Cased Hole - CBL-GR- TD to surface
Open Hole - None

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 500'	Spud	8.4-9.0	40-50	no control
500- 8547'	Non-dispersed	8.4-9.0	30-60	less than 8

Drilling:

Surface Hole:

Drill to surface casing point of 500' and set 9 5/8" casing.

Production Hole:

Mud drill to kick off point of 560'. At this point the well will be directionally drilled by building 4.5 degrees per 100' with an azimuth of 80.67 degrees. The end of the build will be at a TVD of 1005', a TMD of 1051', hd of 81' and an angle of 20.5 degrees. This angle and azimuth will be held to a total depth of 8060' TVD and 8547' TMD

Materials:**Casing program:**

<u>Hole Size</u>	<u>Interval</u>	<u>Size</u>	<u>Weight</u>	<u>Vis.</u>
	TMD	TVD		
12 1/4"	500'	500'	9 5/8"	32.3#
8 3/4"	5000'	5000'	4 1/2"	10.5#
8 3/4"	8547'	8060'	4 1/2"	11.6#

Tubing Program:

2 3/8"	0'	8060'	2 3/8"	4.7#	J-55
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Wellhead Equipment

9 5/8" x 4 1/2" x 2 3/8" - 11" (2000 psi) wellhead assembly

Cementing:

9 5/8" surface casing conventionally drilled -
 Cement with 220 sacks Type III cement with 0.25 pps Celloflake, 3% calcium chloride. (470 cu ft-200% excess, bring cement to surface). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60 degrees F. prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - Lead w/1420 sxs Premium Lite HS FM cement w/3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS. Tail w/90 sxs Type III cmt w/1% calcium chloride, 0.25 pps celloflake, 0.2% fluid loss (3150 cu ft, 20% excess to circulate to surface). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4 1/2" production casing alternative slurry- stage collar @ 6048' TMD'. First stage: pump 374 sxs Premium Lite HS FM w/ 3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS. Tail with 90 sxs Type III cmt w/1% calcium chloride, 0.25 pps celloflake, 0.2% fluid loss. Second stage: pump 1046 sxs Premium Lite w/3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS (3150 cu ft of slurry, 20% excess).

BOP and Tests:

Surface to production TD - 11", 2000 psi double gate BOP stack (Reference Figure #1).
 Prior to drilling out surface casing, test rams and casing to 600 psi for 30 minutes.

Surface to Total Depth - choke manifold (Reference Figure #2).

Pipe rams will be actuated at least once each day and blind rams will be actuated once each trip to test proper functioning. A Kelly cock valve and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

Additional Information:

- This gas is dedicated.
- The south half of section 26 is dedicated to the Mesaverde and Dakota of this well.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.


Drilling Engineer

5-25-05
Date

Burlington Resources Inc.

Survey Report

Database: EDM 2003.5 Single User Db
Company: Burlington
Project: Gobernador Knob
Site: Section 26
Well: Unit 81M
Wellbore: New 2/9/2005
Design: 2-9-05

Local Co-ordinate Reference: Well Unit 81M
TVD Reference: RKB @ 6514.0ft (Aztec New)
MD Reference: RKB @ 6514.0ft (Aztec New)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Targets

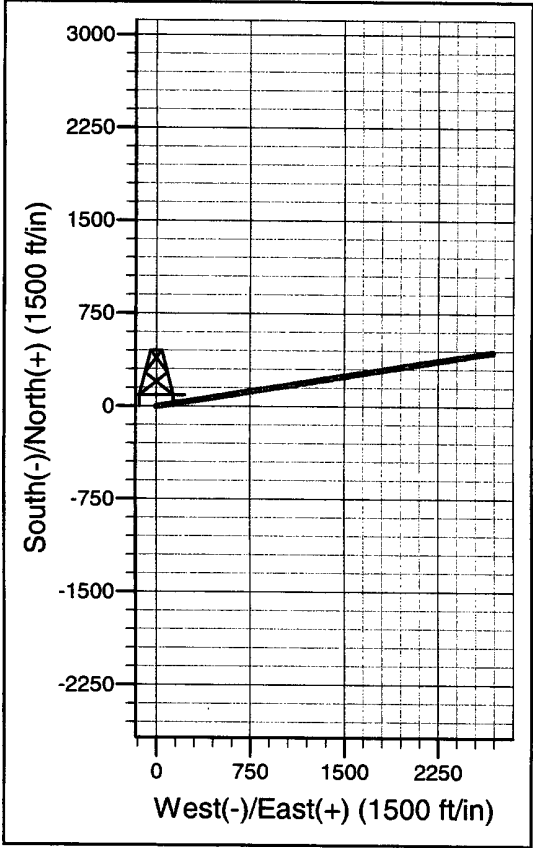
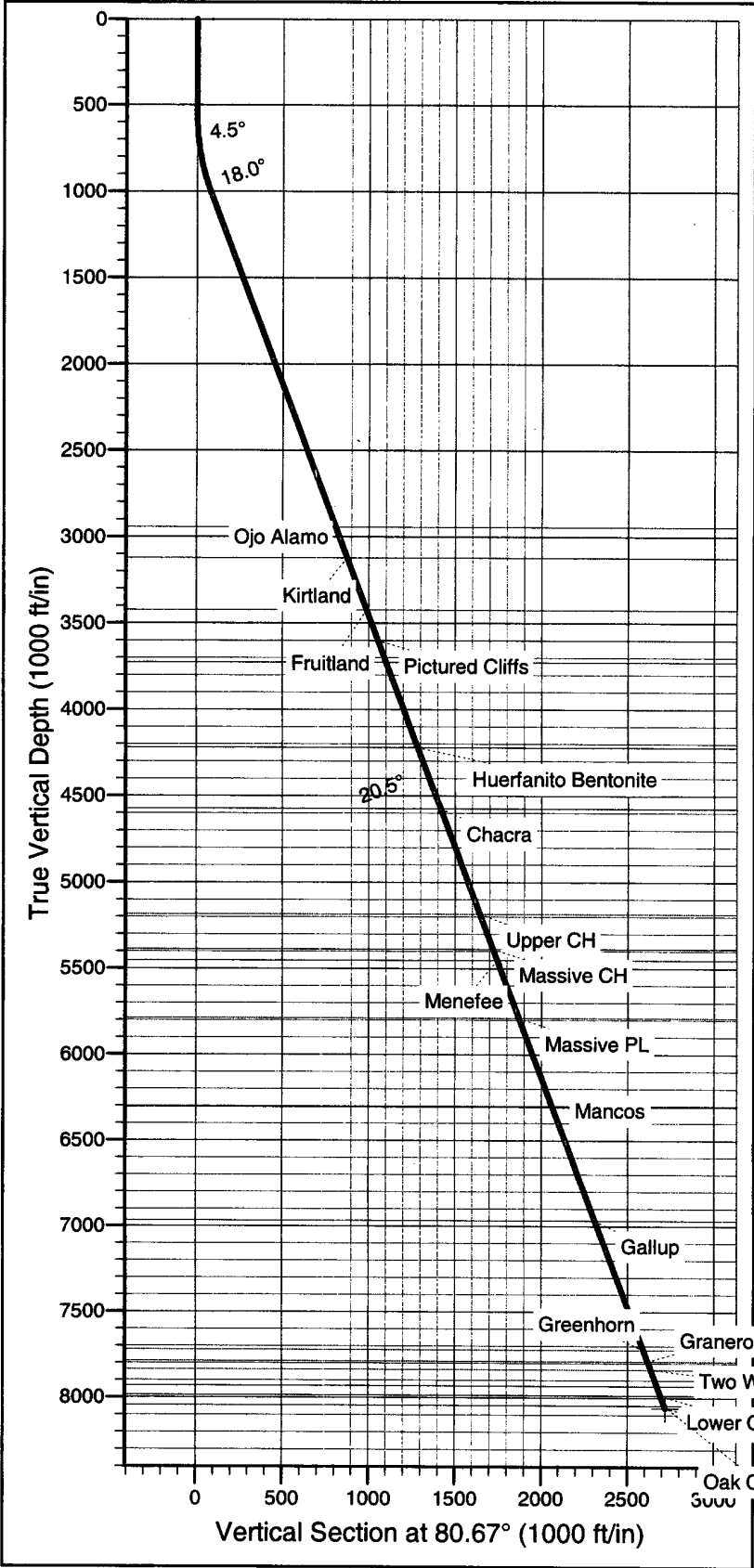
Target Name	Shape	TVD (ft)	Northing (m)	Easting (m)	+N/-S ft	+E/-W ft	Created	Updated
MV Target	Point	4519.0	613132.26	206207.41	-35844.4	29906.9	5/17/2005	5/17/2005
DK Target	Point	8060.0	624180.66	197837.83	403.6	2447.7	2/3/2005	5/4/2005
81M Target	Point	8060.0	624191.95	197909.32	440.6	2682.3	2/9/2005	2/9/2005

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3085.8	2945.0	Ojo Alamo		0.00	
3275.8	3123.0	Kirtland		0.00	
3598.2	3425.0	Fruitland		0.00	
3786.1	3601.0	Pictured Cliffs		0.00	
3920.7	3727.0	Lewis		0.00	
4449.1	4222.0	Huerfano Bentonite		0.00	
4826.0	4575.0	Chacra		0.00	
5477.2	5185.0	Upper CH		0.00	
5695.0	5389.0	Massive CH		0.00	
5764.4	5454.0	Menefee		0.00	
6123.1	5790.0	Massive PL		0.00	
6674.0	6306.0	Mancos		0.00	
7381.8	6969.0	Gallup		0.00	
8185.8	7722.0	Greenhorn		0.00	
8257.3	7789.0	Graneros		0.00	
8309.6	7838.0	Two Wells		0.00	
8410.0	7932.0	Upper Cubero		0.00	
8469.7	7988.0	Lower Cubero		0.00	
8531.7	8046.0	Oak Canyon		0.00	

Burlington Resources

Project: Gobernador Knob
Section 26
Unit 81M
New 2/9/2005
Plan: 2-9-05



FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	2945.0	3085.8	Ojo Alamo
2	3123.0	3275.8	Kirtland
3	3425.0	3598.2	Fruitland
4	3601.0	3786.1	Pictured Cliffs
5	3727.0	3920.7	Lewis
6	4222.0	4449.1	Huerfanito Bentonite
7	4575.0	4826.0	Chacra
8	5185.0	5477.2	Upper CH
9	5389.0	5695.0	Massive CH
10	5454.0	5764.4	Menefee
11	5790.0	6123.1	Massive PL
12	6306.0	6674.0	Mancos
13	6969.0	7381.8	Gallup
14	7722.0	8185.8	Greenhorn
15	7789.0	8257.3	Graneros
16	7838.0	8309.6	Two Wells
17	7932.0	8410.0	Upper Cubero
18	7988.0	8469.7	Lower Cubero
19	8046.0	8531.7	Oak Canyon