# **UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT**

	APPLICATION FOR PERMIT TO	DRILL, DEEPEN, OR PLUG BACK	OF CONS. D
1a.	Type of Work  DRILL RECET  070 FARMIN	5. Lease Number           VED         NMSF-077648	umber 22 12 12 13 15
1b.	Type of Well GAS	6. If Indian, All. or T	ribe
2.	Operator  BURLINGTON  RESOURCES Oil & Gas Company	7. Unit Agreement N	lame
3.	Address & Phone No. of Operator PO Box 4289, Farmington, NM 8749	8. Farm or Lease Na 9 Davis 9. Well Number	ame
	(505) 326-9700	13M	
4.	Location of Well 2265' FSL, 1725' FWL	<b>10. Field, Pool, Wild</b> Basin DK/Blance	
Lati	tude 36° 55.5854', Longitude 108° 02	.9518'W Ksec., Twn, Rge, I API# 30-045- 33	Mer. (NMPM) -12-W 3157
14.	Distance in Miles from Nearest Town 8.7 from Int Hwy 170 & 574, La Pla	<b>12. County</b> ta NM San Juan	13. State NM
15.	Distance from Proposed Location to Nearest Pro	operty or Lease Line	
16.	Acres in Lease	17. Acres Assigned 	
18.	Distance from Proposed Location to Nearest We		ease
19.	Proposed Depth 7631'	<b>20. Rotary or Cable</b> Rotary	Tools
21.	Elevations (DF, FT, GR, Etc.) 6378' Gr	22. Approx. Date W	ork will Start
23.	Proposed Casing and Cementing Program See Operations Plan attached		
24.	Authorized by: Frances Sound Regulatory Specialist	. <u>5-/8-</u> Date	05
PERM	IIT NO.	APPROVAL DATE	
APPR	OVED BY Haypu Toursend TITLE	Acting AFM DAT	E 8/31/05
Arch	seological Report Attached		

Threatened and Endangered Species Report Attached

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

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or presentations as to any matter within its jurisdiction.

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFF 3165.4



DISTRICT I 1625 N. French Dr., Hobbs, N.M. 86240

# State of New Mexico Energy, Minerals & Natural Resources Department

Santa Fe, NM 87505

Form C-102 Revised August 15, 2000

DISTRICT II 811 South First, Artesia, N.M. 88210

DISTRICT III OIL C

OIL CONSERVATION DIVISION
2040 South Pacheco

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

DESTRICT IV 2040 South Pacheco, Santa Fe, NM 87505

1000 Rio Brezos Rd., Aztec, N.M. 67410

☐ AMENDED REPORT

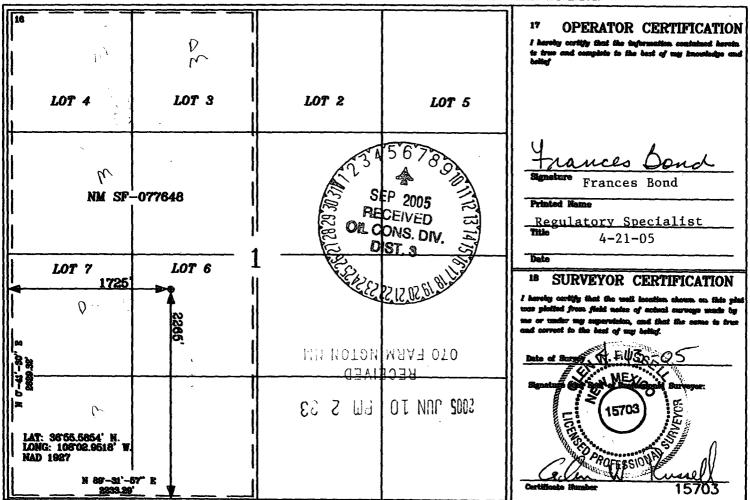
# WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-	71599/72319	Basin Dakota/ Blanco Mesaverde		
<sup>4</sup> Property Code	°Pro	<sup>6</sup> Property Name		
18509	DA	DAVIS		
OGRED No.	<sup>6</sup> Operator Name		<sup>b</sup> Elevation	
14538	BURLINGTON RESOURCES	OIL AND GAS COMPANY LP	6378,	

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot lớn	Feet from the	North/South line	Feet from the	East/West line	County
K	1	31-N	12-W		2265'	SOUTH	1725'	WEST	SAN JUAN
<sup>11</sup> Bottom Hole Location If Different From Surface									
UL or lot no.	Section	fownship	Range	Lot Idn	Feet from the	Morth/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acre	B	<u></u>	<sup>10</sup> Joint or	l Indill	<sup>14</sup> Consolidation C	ode .	<sup>15</sup> Order No.		<u> </u>
310.79 31/.30		K/MV			ļ				

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



Submit 3 Copies To Appropriate District Office	State of New Mexico	)	Form C-103		
District I	Energy, Minerals and Natural Res	sources	May 27, 2004		
1625 N. French Dr., Hobbs, NM 88240 <u>District II</u>	·	WELL API NO.	0-045-		
1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION DIV				
<u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Francis Dr	r. STATE  6. State Oil & Gas Lease	FEE		
District IV	Santa Fe, NM 87505		F-077648		
1220 S. St. Francis Dr., Santa Fe, NM 8750	ES AND REPORTS ON WELLS	7 I cosa Nama an IInit A			
	TO DRILL OR TO DEEPEN OR PLUG BACK TO A	7. Lease Name or Unit Ap	greement name		
DIFFERENT RESERVOIR. USE "APPLICATION PROPOSALS.)	ON FOR PERMIT" (FORM C-101) FOR SUCH	n	avis		
1. Type of Well:		8. Well Number			
Oil Well Gas Well X	Other		3M		
2. Name of Operator  BURLINGTON RESC	OURCES OIL & GAS COMPANY LP	9. OGRID Number	1538		
3. Address of Operator	ONCED OF WORK CONTINUE		10. Pool name or Wildcat		
3401 E. 30TH STR 4. Well Location	EET, FARMINGTON, NM 87402	Blanco Mesave	rde/Basin Dakota		
	2265 feet from the South lir	ne and1725 feet from the			
Section 1	Township 31N Range Elevation (Show whether DR, RKB, RT, GR		ounty San Juan		
11.	6378' GR	t, etc.)			
Pit or Below-grade Tank Application	X or Closure				
Pit type New Drill Depth to Groundw					
Pit Liner Thickness: na	mil Below-Grade Tank: Volume				
	Appropriate Box to Indicate Nature				
NOTICE OF IN	NTENTION TO: PLUG AND ABANDON   F	SUBSEQUENT RE	PORT OF:  ALTERING CASING		
TEMPORARILY ABANDON	— · - · · · · · · · · · · · · · · · · ·	COMMENCE DRILLING OPNS.	P AND A		
PULL OR ALTER CASING	MULTIPLE COMPL	CASING/CEMENT JOB	_		
OTHER: New I	Orill Pit X	OTHER:			
13. Describe proposed or complete	ed operations. (Clearly state all pertinent deta	ails, and give pertinent dates, includin			
13. Describe proposed or complete		ails, and give pertinent dates, includin			
13. Describe proposed or complete of starting any proposed work	ed operations. (Clearly state all pertinent deta	ails, and give pertinent dates, includin			
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13. Describe proposed or complete of starting any proposed work or recompletion.	ed operations. (Clearly state all pertinent deta ). SEE RULE 1103. For Multiple Completion	ails, and give pertinent dates, includin ons: Attach wellbore diagram of prop	osed completion		
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36' 55.5854' N

**LONGITUDE:** 

108" 02.9518" W NAD27

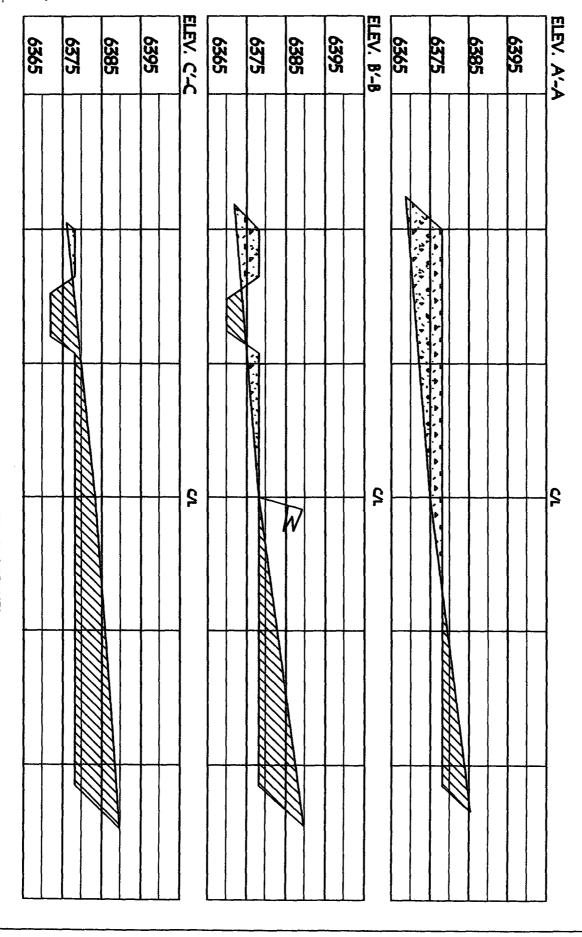
130 REAR Mellhead to back 230' X 300' DIKE 65' ص<del>ار</del> ( Wellhead to side ष्ठ 350' X 400' = 3.03 ACRES 130' 50' CONSTRUCTION ZONE

NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED

PIPLINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING PAYS PRIOR TO CONSTRUCTION.

# SECTION 1, T-31- N, R-12-W, NMPM, SAN JUAN COUNTY, NM GROUND ELEVATION: 6378', DATE: APRIL 4, 2005 BURLINGTON RESOURCES OIL & GAS COMPANY LP DAVIS 13M, 2265' FSL & 1725' FWL



PIPLINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED

# OPERATIONS PLAN

<u>Well Name:</u>

DAVIS 13M

Location:

2265' FSL & 1725' FWL, Section Sec 01 T31N R12W

San Juan County, New Mexico

Formation:

Basin Dakota/Blanco Mesaverde

Elevation:

6378' GL

Formation Tops:	<u>Top</u>	Bottom	<u>Contents</u>
Surface	San Jose	965'	
Ojo Alamo	965'	1035'	aquifer
Kirtland	1035'	2717 <b>'</b>	gas
Fruitland Coal	2717 <b>'</b>	2960'	gas
Pictured Cliffs	2960'	3127'	gas
Lewis	3127'	3640'	
Huerfanito Bentonite	3640'		
Chacra	4057'	4547'	gas
Massive Cliff House	4547'	4777 <b>'</b>	gas
Menefee	4777'	5182 <b>'</b>	gas
Massive Point Lookout	5182'	5635'	gas
Mancos Shale	5635'	6588'	
Upper Gallup	6588'	7304'	gas
Greenhorn	7304'	7359 <b>'</b>	gas
Graneros	7359'	7420'	gas
Two Wells	7420'	7499'	gas
Paguate	7499'	7547 <b>'</b>	gas
Cubero	7547'	7581'	gas
Encinal	7581'	7631'	gas
Total Depth:	7631'		gas

# Logging Program:

Mud Logs/Coring/DST

Mud logs - none

Coring - none

DST - none

Open hole - none

Cased hole - Gamma Ray, CCL, CBL - surface to TD

## Mud Program:

<u>Interval</u>	<u>Type</u>	Weight	<u>Vis.</u>	<u>Fluid Loss</u>
0 - 120'	Spud MUD/Air/Air Mist	8.4 - 9.0	40 - 50	no control
120 - 3227 <b>'</b>	LSND	8.4 - 9.0	30 - 60	no control .
3227 - 7631 <b>′</b>	Air/Air Mist/Nitrogen	n/a	n/a	n/a

# Casing Program (as listed, the equivalent, or better):

<u> Hole Size</u>	<u>Depth Interval</u>	<u>Csg.Size</u>	Wt.	<u>Grade</u>
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3227'	7"	20/23#	J-55
6 1/4"	0' - 7631'	4 1/2"	10.5#	J-55

# Tubing Program:

Depth Interval	<u>Csg.Size</u>	<u>Wt.</u>	<u>Grade</u>
0' - 7631'	2 3/8"	4.7#	J-55

### BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

## Completion Operations -

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

### Wellhead -

9 5/8" x 7" x 4  $\frac{1}{2}$ " x 2 3/8" x 2000 psi tree assembly.

### General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drill crew.
- All BOP tests & drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

### Cementing:

9 5/8" surface casing -

Pre-Set Drilled - Cement with 23 sx Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (38 cu ft of slurry, bring cement to surface) Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

Conventionally Drilled - Cement with 88 sx Type III cement with 0.25 pps Celloflake, 2% CaCl. (113 cu ft of slurry, 200% excess, bring cement to surface) Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under 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. Test casing to 600 psi for 30 minutes.

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

# 7" intermediate casing -

Lead with 280 sacks Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail w/90 sacks Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (727 cu ft 50% excess to circulate to surface). WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

# 7" intermediate casing alternative two stage -

Stage collar set 300' above the top of the Fruitland. First stage: Lead w/27 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss. Tail w/90 Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: 253 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (721 cu ft - 50% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo @ 1035'. Two turbolating centralizers at the base of the Ojo Alamo 1035'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

## 4 1/2" Production Casing -

Pump 303 sxs Premium Lite HS FM w/0.25 pps celloflake, 0.3% CD-32, 6.25 pps LCM-1, 1% fluid loss, 6% gel, 7 pps CSE (605 cu.ft., 30% excess to achieve 100' overlap in 4-1/2" x 7" annulus). WOC a minimum of 18 hrs prior to completing.

# Cementing: Continued

Cement float collar stacked on top of float shoe.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

• If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

### Special Drilling Operations (Air/Mist Drilling):

The following equipment will be operational while air/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

## Additional Information:

- The Mesa Verde and Dakota formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal 300 psi
Pictured Cliffs 600 psi
Mesa Verde 700 psi
Dakota 2000 psi

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The west half of Section 1 is dedicated to the Mesa Verde and Dakota.
- This gas is dedicated.

John 5/27/05
Drilling Engineer Date

Completton/Workover Rig BOP Configuration 2,000 psi System

Orilling Rig Choke Manifold Configuration 2000 psi System

**Burlington Resources** 

ROTATING HEAD:

LIOM HIBBLE/BLOOKE LINE

RIG FLOOR

2000 psi System

\* 136

₩ (X) ₩

Double Gate BOP

Figure #3

Operations. 7-1/16" bare, 2000 psi minimum working

Minimum BOP installation for all Completion/Workover

pipe rams. A stripping head to be installed on the top of pressure double gate BOP to be equipped with bilind and

pressure or greater exctuding 500 psi stripping head. the BOP. All BOP equipment is 2000 psi working

Figure #2

Point to Total Depth. 2,000psi working pressure Choke manifold installation from Surface Casing GROUND LEVEL

RELEF LINE TO 
CHOKE MANIFOLD & BLOW PIT

4-20-01

Figure #1

4-20-01