

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 NMSF-077648 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Davis 9. Well Number #10M	
4. Location of Well Unit N (SESW), 840' FSL, 1630' FWL Latitude 36° 54.5054'N Longitude 108° 03.0522'W	10. Field, Pool, Wildcat Blanco Mesaverde/ Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 12, T31N, R12W API # 30-045- 33127	
14. Distance in Miles from Nearest Town 6.2 miles from Interstate Hwy 550 and 173 Aztec, NM	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 840'		
16. Acres in Lease	17. Acres Assigned to Well 276.94 W/2 MV/DK	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 671' - Davis #14		
19. Proposed Depth 2665'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6239' GL	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Amanda Sandera</u> Regulatory Compliance Assistant II	<u>5-27-05</u> Date	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological 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.

NMOCD

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

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

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

DISTRICT III
1000 Rio Brazos Rd., Antec, N.M. 87410

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-33127	² Pool Code 71599/72319	³ Pool Name Basin Dakota/ Blanco Mesaverde
⁴ Property Code 18509	⁵ Property Name DAVIS	⁶ Well Number 10M
⁷ OGED No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP	⁹ Elevation 6239'

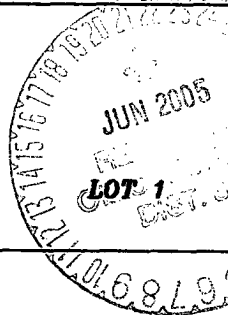
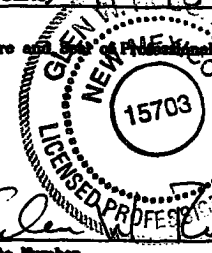
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Mn	Feet from the	North/South line	Feet from the	East/West line	County
N	12	31-N	12-W		840'	SOUTH	1630'	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Mn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 276.94 W/2 DK/MV					¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.

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						¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <u>Frances Bond</u> Signature Frances Bond Printed Name Regulatory Specialist Title 4-21-05 Date	
LOT 4		LOT 3		LOT 2		LOT 1	
NM SF-077648							
LOT 5		LOT 6		LOT 7		LOT 8	
12							
LOT 12		LOT 11		LOT 10		LOT 9	
LOT 13		LOT 14					
1630'		840'		LOT 15		LOT 16	
LAT: 36°54.5054' N. LONG: 108°03.0522' W. NAD 1927							
N 89°36'-15" E 2457.97'							
				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 <u>4-13-05</u> Signature and Seal of Professional Surveyor:  Certificate Number 15703			

OPERATIONS PLAN

Well Name: DAVIS 10M
Location: 840' FSL & 1630' FWL, Section Sec 12 T31N R12W
San Juan County, New Mexico
Formation: Basin Dakota/Blanco Mesaverde
Elevation: 6239' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1063'	
Ojo Alamo	1063'	1146'	aquifer
Kirtland	1146'	2591'	gas
Fruitland Coal	2591'	2786'	gas
Pictured Cliffs	2786'	2961'	gas
Lewis	2961'	3471'	
Huerfanito Bentonite	3471'		
Chacra	3871'	4356'	gas
Massive Cliff House	4356'	4531'	gas
Menefee	4531'	5088'	gas
Massive Point Lookout	5088'	5478'	gas
Mancos Shale	5478'	6421'	
Upper Gallup	6421'	7143'	gas
Greenhorn	7143'	7198'	gas
Graneros	7198'	7256'	gas
Two Wells	7256'	7333'	gas
Paguate	7333'	7380'	gas
Cubero	7380'	7420'	gas
Encinal	7420'	7468'	gas
Total Depth:	7468'		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>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0 - 120'	Spud MUD/Air/Air Mist	8.4 - 9.0	40 - 50	no control
120 - 3061'	LSND	8.4 - 9.0	30 - 60	no control
3061' - 7468'	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>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3061'	7"	20/23#	J-55
6 1/4"	0' - 7468'	4 1/2"	10.5#	J-55

Tubing Program:

<u>Depth Interval</u>	<u>Csg.Size</u>	<u>Wt.</u>	<u>Grade</u>
0' - 7468	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.

~~BOP~~

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 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 353 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 ~~684~~ ⁸¹⁶ 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/28 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: 239 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate ~~684~~ ⁸⁷⁴ 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 @ 1146'. Two turbolating centralizers at the base of the Ojo Alamo 1146'. 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 (600 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 south half of Section 3 is dedicated to the Mesa Verde and Dakota.
- This gas is dedicated.


 Drilling Engineer

5/27/05
 Date

Burlington Resources

Drilling Rig 2000 psi System

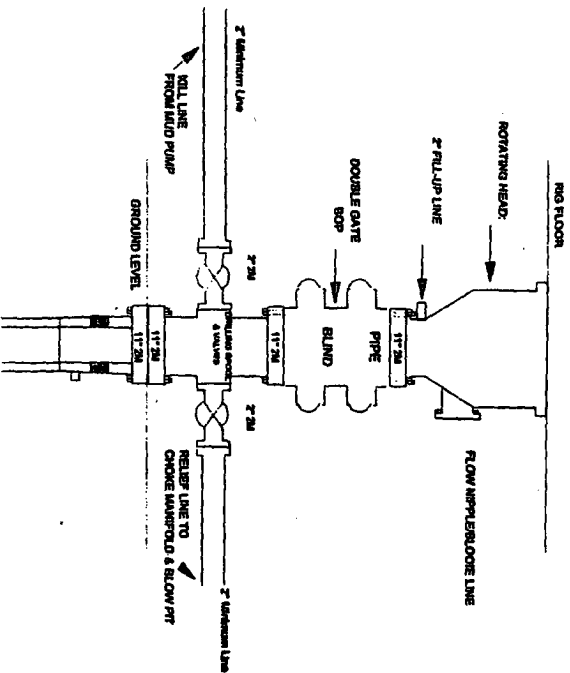


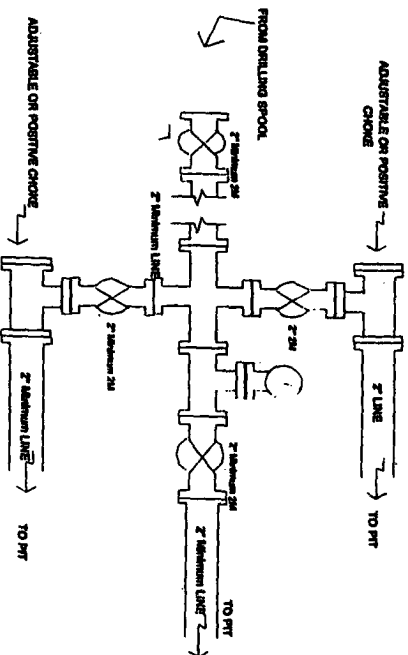
Figure #1

BOP Installation from Surface Casing Point to Total Depth. 11" Bore
10" Mandrel 2000 psi stripping pressure. A 500 psi rotating head on top of
man prevention. All BOP equipment is 2,000 psi working pressure

1-01

BURLINGTON RESOURCES

Drilling Rig Choke Manifold Configuration 2000 psi System



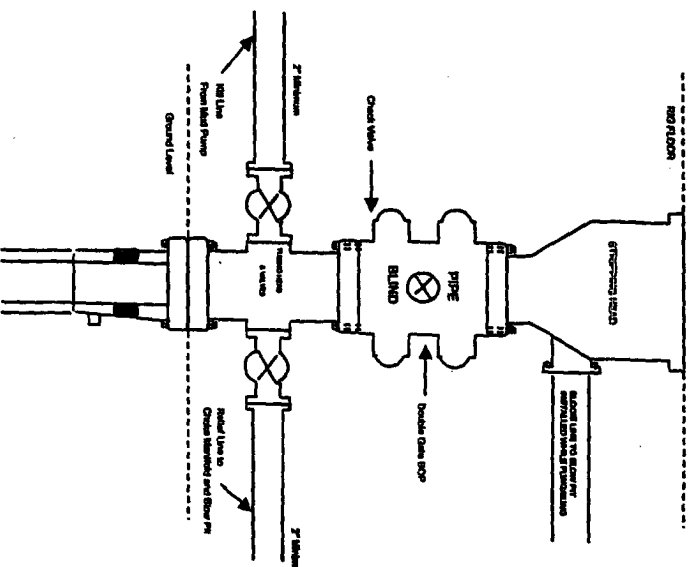
Choke manifold installation from Surface Casing
Point to Total Depth. 2,000psi working pressure
equipment with two chokes.

Figure #3

4-20-01

BURLINGTON RESOURCES

Completion/Workover Rig BOP Configuration 2,000 psi System



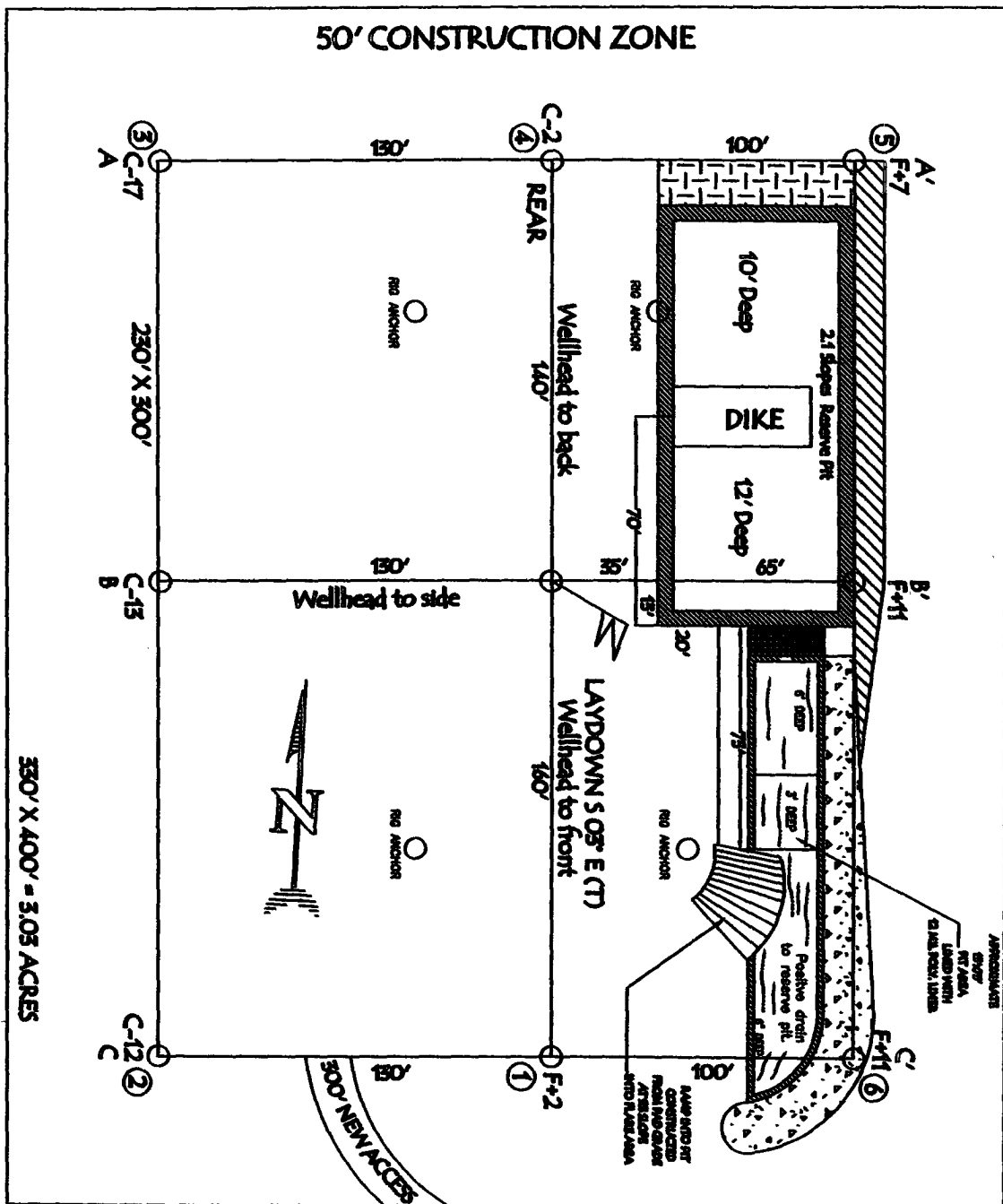
Minimum BOP installation for all Completion/Workover
Operations. 7-1/16" bore, 2000 psi minimum working
pressure double gate BOP to be equipped with blind and
pipe rams. A stripping head to be installed on the top of
the BOP. All BOP equipment is 2000 psi working
pressure or greater excluding 500 psi stripping head.

Figure #2

4-20-01

BURLINGTON RESOURCES OIL & GAS COMPANY LP
DAVIS 10M, 840' FSL & 1630' FWL
SECTION 12, T-31-N, R-12-W, NMPM, SAN JUAN COUNTY, NM
GROUND ELEVATION: 6239', DATE: APRIL 5, 2005

RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 5' WIDE AND 1' ABOVE SHALLOW SIDE).



LATITUDE: 36° 54.5054' N LONGITUDE: 108° 05.0522' W NAD27

BURLINGTON RESOURCES OIL & GAS COMPANY LP
DAVIS10M, 840' FSL & 1630' FWL
SECTION 12, T-31-N, R-12-W, NMPM, SAN JUAN COUNTY, NM
GROUND ELEVATION: 6239', DATE: APRIL 5, 2005

2

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2

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2

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