

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2006 MAY 9 AM 8.53

1a. Type of Work DRILL	5. Lease Number NMSF-077764 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 Schumacher 9. Well Number #1E
4. Location of Well Unit J (NWSE), 1665' FSL, 1750' FEL Latitude 36° 48.5753'N Longitude 107° 54.2367'W	10. Field, Pool, Wildcat Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) J Sec. 17, T30N, R10W API # 30-045-33736
14. Distance in Miles from Nearest Town 5 miles to Aztec, NM	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1665'	
16. Acres in Lease	17. Acres Assigned to Well 311.82 E2 DK
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 50' - Schumacher #9A	
19. Proposed Depth 7580'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6450' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Armando Sandoval</u> Regulatory Analyst	<u>5-9-06</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.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

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

NMOC

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

District II
PO Drawer 00, 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

Form C-10
Revised February 21, 1999

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

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

RECEIVED
C/O FARMINGTON NM ☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-33736	*Pool Code 71599	*Pool Name Basin Dakota
*Property Code 7491	*Property Name SCHUMACHER	*Well Number 1E
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP	*Elevation 6450'

10 Surface Location

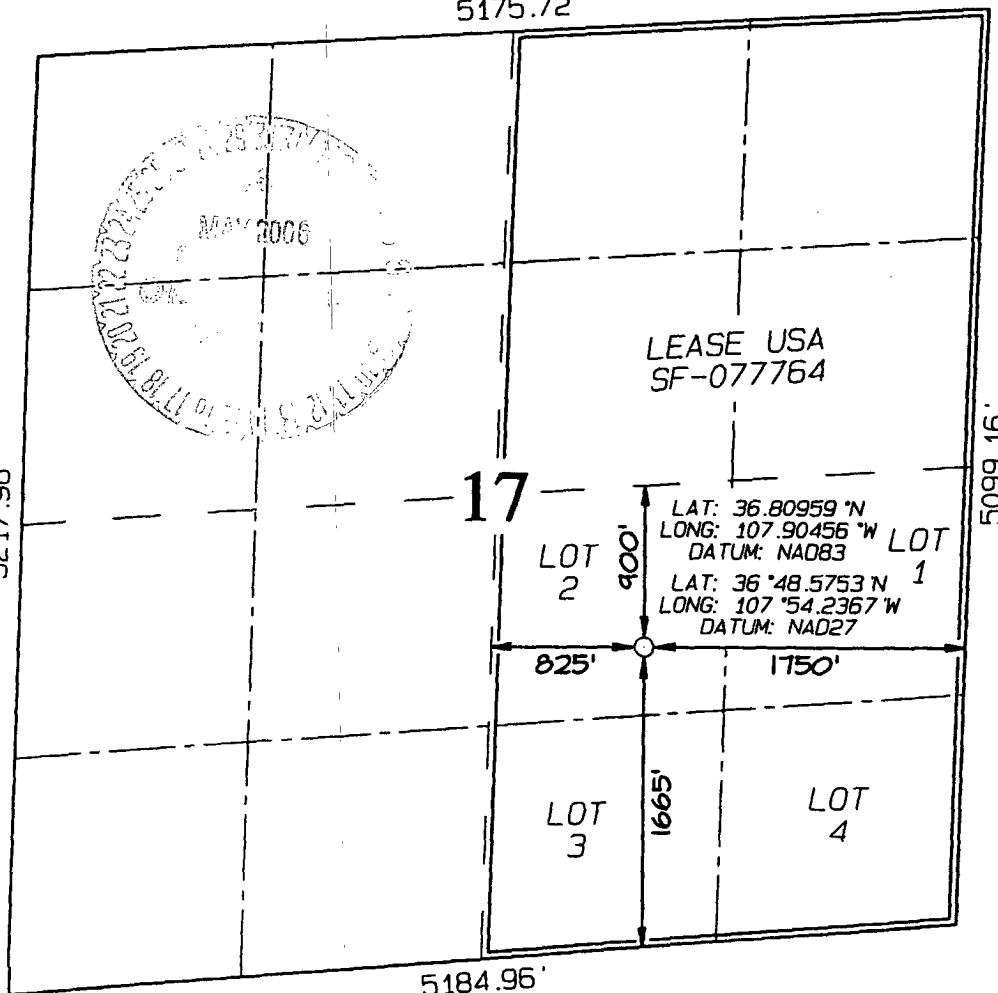
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	17	30N	10W		1665	SOUTH	1750	EAST	SAN JUAN

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
J									
12 Dedicated Acres DK 311.82 ac E2					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

5175.72'



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Patsy Clugston
Signature

Patsy Clugston
Printed Name

Sr. Regulatory Specialist
Title

4/24/2006
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.

Survey Date: FEBRUARY 27, 2006

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

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

Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

May 27, 2004

<p>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.)</p>		<p>WELL API NO. 30-045-</p>
<p>1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other</p>		<p>5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/></p>
<p>2. Name of Operator BURLINGTON RESOURCES OIL & GAS COMPANY LP</p>		<p>6. State Oil & Gas Lease No. NMSF-077764</p>
<p>3. Address of Operator 3401 E. 30TH STREET, FARMINGTON, NM 87402</p>		<p>7. Lease Name or Unit Agreement Name Schumacher</p>
<p>4. Well Location Unit Letter <u>J</u> : <u>1665</u> feet from the <u>South</u> line and <u>1750</u> feet from the <u>East</u> line Section <u>17</u> Township <u>30N</u> Rng <u>10W</u> NMPM County <u>San Juan</u></p>		<p>8. Well Number 1E</p>
<p>11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6450'</p>		<p>9. OGRID Number 14538</p>
<p>10. Pool name or Wildcat Basin Dakota</p>		
<p>Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/></p>		
<p>Pit type <u>New Drill</u> Depth to Groundwater <u>>100'</u> Distance from nearest fresh water well <u>>1000'</u> Distance from nearest surface water <u>>1000'</u></p>		
<p>Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume <u> </u> bbls; Construction Material <u> </u></p>		

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 ☐

OTHER: New Drill ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

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.

New Drill, Lined:

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 Amanda Sandoval TITLE Regulatory Analyst DATE 5/2/2006

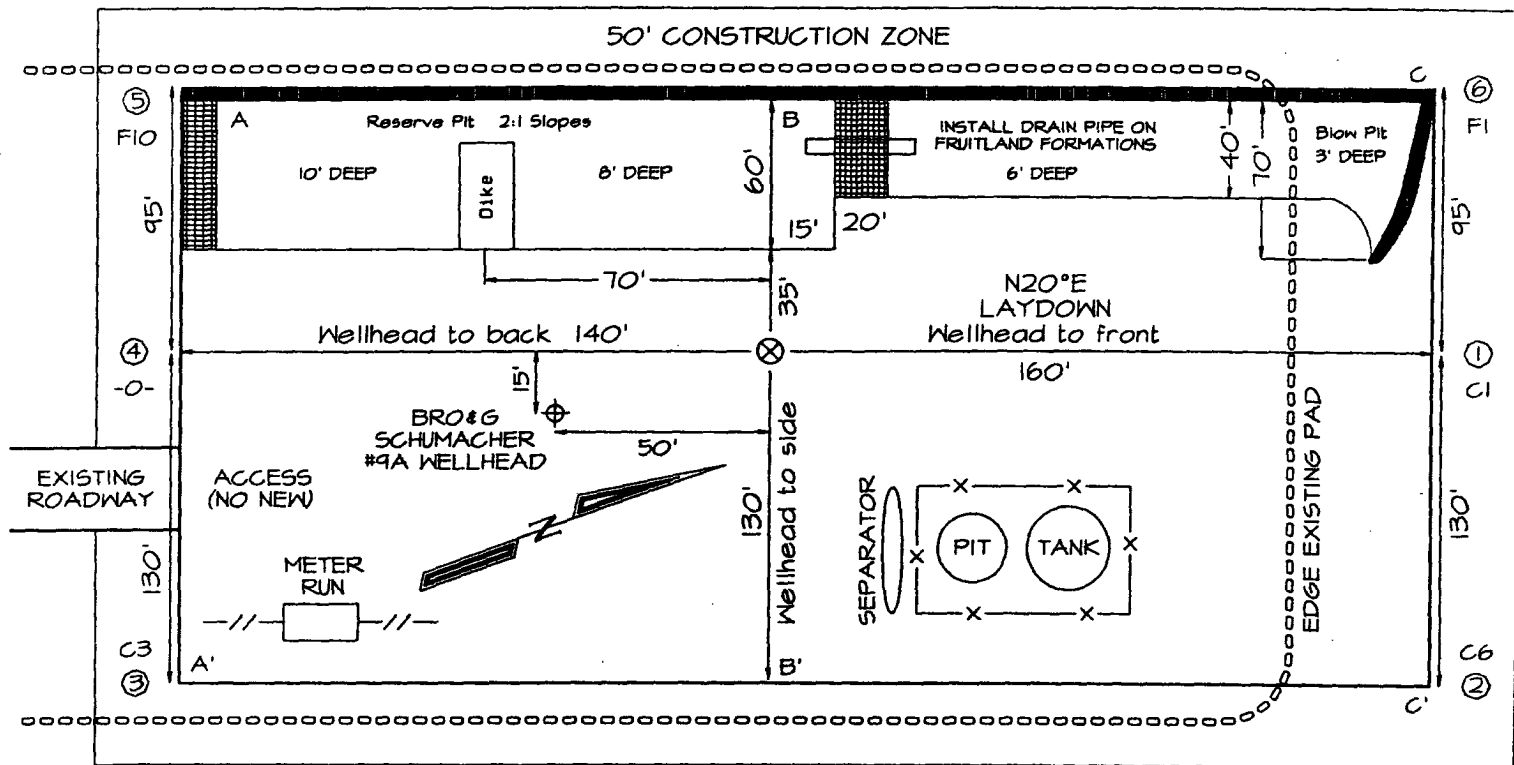
Type or print name Amanda Sandoval E-mail address: asandoval@br-inc.com Telephone No. 505-326-9700
For State Use Only

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3 DATE MAY 30 2006
Conditions of Approval (if any):

PLAT #1

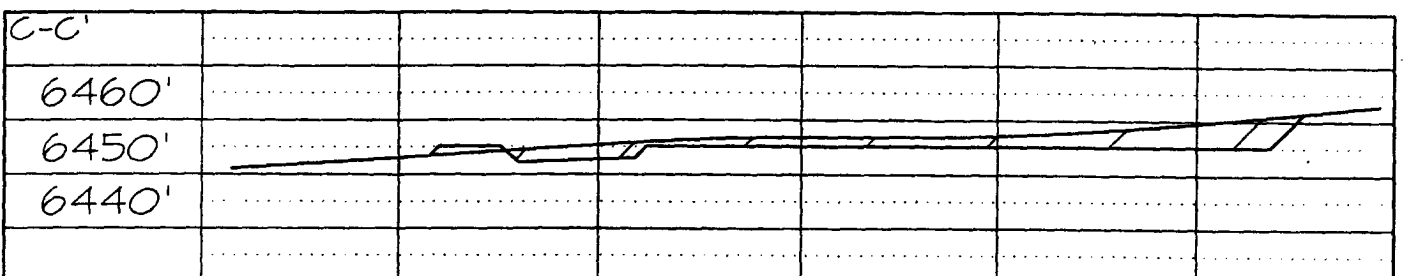
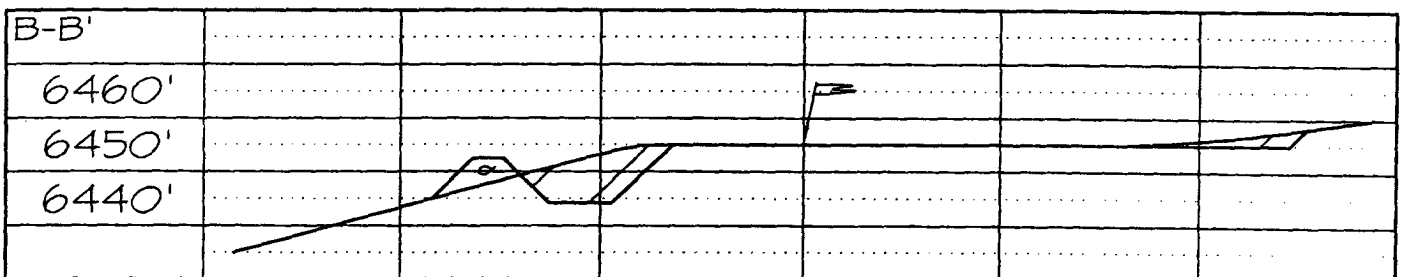
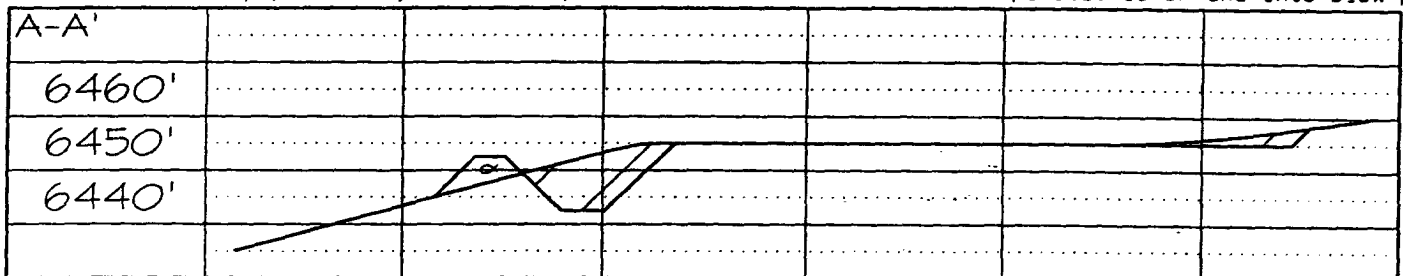
BURLINGTON RESOURCES OIL & GAS COMPANY, LP
SCHUMACHER #1E, 1665' FSL & 1750' FEL
SECTION 17, T30N, R10W, NMPM, SAN JUAN COUNTY, NM
GROUND ELEVATION: 6450' DATE: FEBRUARY 27, 2006

LATITUDE: 36.80959° N
LONGITUDE: 107.90456° W
 DATUM: NAD1983



225' X 300'
 (325' x 400') = 2.98 ACRES

Reserve Pit Dike: to be 8' above Deep side (overflow - 3' wide and 1' above shallow side).
 Blow Pit: overflow pipe halfway between top and bottom and to extend over plastic liner and into blow pit.



Note: 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

OPERATIONS PLAN

Well Name: SCHUMACHER 1E
Location: 1665' FSL & 1750' FEL, Section 17 T30N R10W
San Juan County, New Mexico
Formation: Basin Dakota
Elevation: 6450' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1724'	
Ojo Alamo	1724'	1772'	aquifer
Kirtland	1772'	2617'	gas
Fruitland	2617'	3020'	gas
Pictured Cliffs	3020'	3167'	gas
Lewis	3167'	3757'	
Huerfanito Bentonite	3757'		
Chacra	4010'	4664'	gas
Massive Cliff House	4664'	4798'	gas
Menefee	4798'	5317'	gas
Massive Point Lookout	5317'	5659'	gas
Mancos Shale	5659'	6542'	
Upper Gallup	6542'	7275'	gas
Greenhorn	7275'	7331'	gas
Graneros	7331'	7383'	gas
Two Wells	7383'	7473'	gas
Paguate	7473'	7521'	gas
Cubero	7521'	7580'	gas
Encinal	7580'	7580'	gas
Total Depth:	7580'		gas

Logging Program:

Mud Logs/Coring/DST

Mud logs - none
Coring - none
DST - none
Open hole - none
Cased hole - Gamma Ray, CBL - surface to TD

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0 - 120' ²⁰⁰	Spud MUD/Air/Air Mist	8.4 - 9.0	40 - 50	no control
120' - 3267'	LSND	8.4 - 9.0	30 - 60	no control
3267' - 7580'	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' ²⁰⁰	9 5/8"	32.3#	H-40
8 3/4"	0' - 3267'	7"	20/23#	J-55
6 1/4"	0' - 7580'	4 1/2"	10.5#	J-55

Tubing Program:

<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
0' - 7580'	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, BOPE 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, BOPE 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 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 nit level drill will be conducted weekly for each drill crew.

C. HARRADEN/ May10, 2006 ^{CSH}

BURLINGTON RESOURCES/ Schumacher #1E APD

STIPULATION/CONDITION OF APPROVAL

This well is located within a 'vulnerable area'. In order to protect the integrity of the fresh water alluvium aquifer, a minimum surface csg. depth of 200' is stipulated as a condition of approval for this APD.

Cementing:

9 5/8" surface casing -

Pre-Set Drilled - Cement with ~~33-33~~ Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (~~33-33~~ on surface), 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 ~~33~~ 38 sx Type III cement with 0.25 pps Celloflake, 2% CaCl. ~~1013~~ 1013 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 285 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 (124 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/42 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss. Tail w/90 sxs Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: 242 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (730 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 @ 1772'. Two turbolating centralizers at the base of the Ojo Alamo @ 1772'. 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 282 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 (559 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:

- This will be a Dakota only.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

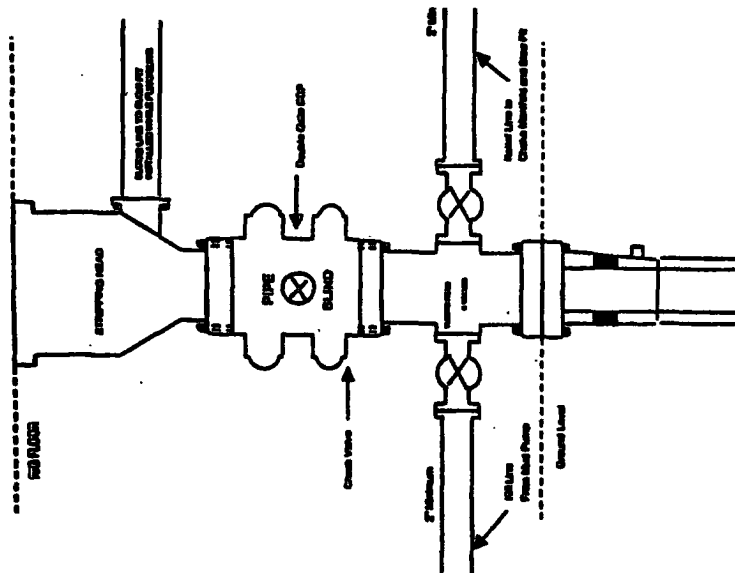
Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2000 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The East half of Section 17 is dedicated to the Dakota formation.
- This gas is dedicated.


Drilling Engineer

5/9/06
Date

BURLINGTON RESOURCES

**Completion/Workover Rig
BOP Configuration
2,000 psi System**

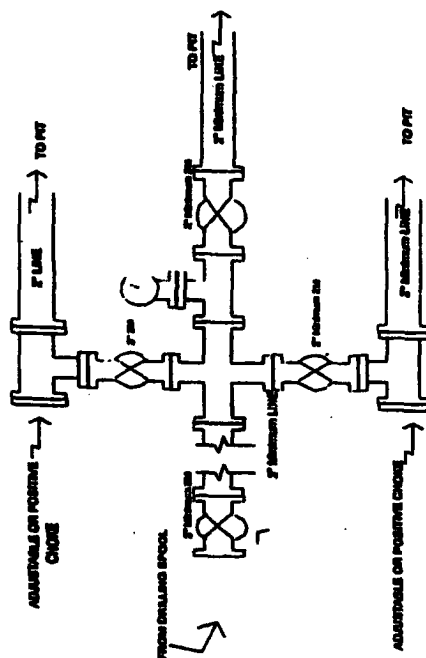


Minimum BOP installation for all Compilations/Workover Operations. 7-1/8" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A shipping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi stripping head.

Figure #2

BURLINGTON RESOURCES

**Drilling Rig
Choke Manifold Configuration
2000 psi System**

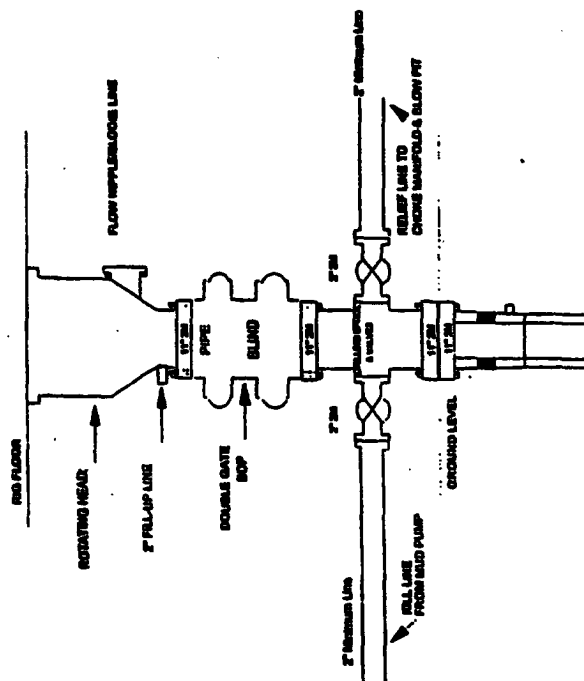


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

Burlington Resources

Drilling Rig 2000 psi System



BOOP Installation from Surface Casing Point to Total Depth. 11" Bore 10" Norelco, 2000 psi working pressure double gate BOP to be equipped with blind rams and slips rams. A BOP psi rating based on top of ram preventers. All BOP equipment to 2,000 psi working pressure.

Figure #1