

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 07 NMSF 080750 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 Sunray F 9. Well Number #1M
4. Location of Well 1745' FSL, 1420' FEL surface hole 660' FSL, 660' FEL bottom hole Latitude 36° 46.82677'N, Longitude 107° 51.02588'W surf. Latitude 36° 46.71294'N, Longitude 107° 50.94478'W bottom	10. Field, Pool, Wildcat Blanco Mesaverde/Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 26, T30N, R10W API # 30-045-30830
14. Distance in Miles from Nearest Town 9.8 miles to intersection Hwy 550 & 173, Aztec	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 890'	
16. Acres in Lease	17. Acres Assigned to Well E/2 317.22
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 120'	
19. Proposed Depth 7656'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6299' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Jonni Clark</u> Regulatory/Compliance Specialist	<u>5/23/05</u> Date

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY [Signature] TITLE Acting AFM DATE 7/28/05

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.

NMOC

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

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-30830		Pool Code 72319/71599	Pool Name Blanco Mesaverde/Basin Dakota
Property Code 7568	Property Name SUNRAY F		Well Number 1M
OGRID No. 14538	Operator Name BURLINGTON RESOURCES OIL AND GAS, INC.		Elevation 6299'

¹⁰ Surface Location

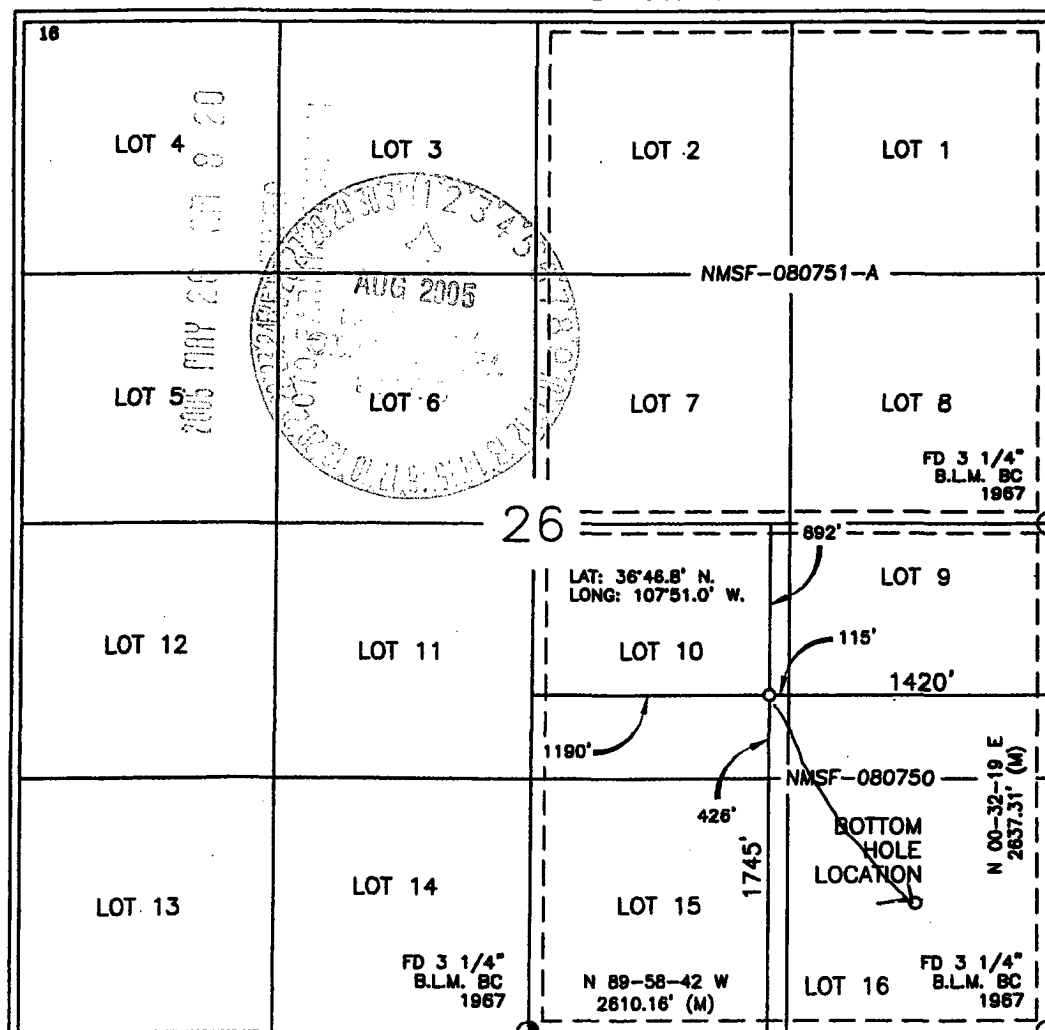
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	26	30-N	10-W		1745'	SOUTH	1420'	EAST	SAN JUAN

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
P	26	30-N	10-W		660'	SOUTH	660'	EAST	SAN JUAN

Dedicated Acres E/317.22	Joint or Infill	Consolidation Code	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

Jon Clark
Signature

Jon Clark
Printed Name

Regulatory Specialist
Title

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.

7-18-05
Date of Survey

[Signature]
Signature and Seal of Professional Surveyor

8894
Certificate Number

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.

30-045-

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil & Gas Lease No.

NMSF-080750

7. Lease Name or Unit Agreement Name

Sunray F

8. Well Number

1M

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 **J** : **1745** feet from the **South** line and **1420** feet from the **East** line
Section **26** Township **30N** Range **10W** NMPM County **San Juan**

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

6299'

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:

na

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:

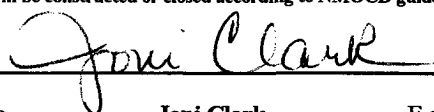
New Drill Pit ☒OTHER: ☐

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 and vent/flare pit will be an unlined pit as detailed in Burlington's Revised Drilling / Workover Pit Construction / Operation Procedures dated November 11, 2004 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids, and that portion will be unlined, 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 NMOCD 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 NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE



TITLE

Regulatory Specialist

DATE

3/8/2005

Type or print name
For State Use Only

Joni Clark

E-mail address:

jclark@br-inc.com

Telephone No.

505-326-9700

APPROVED BY



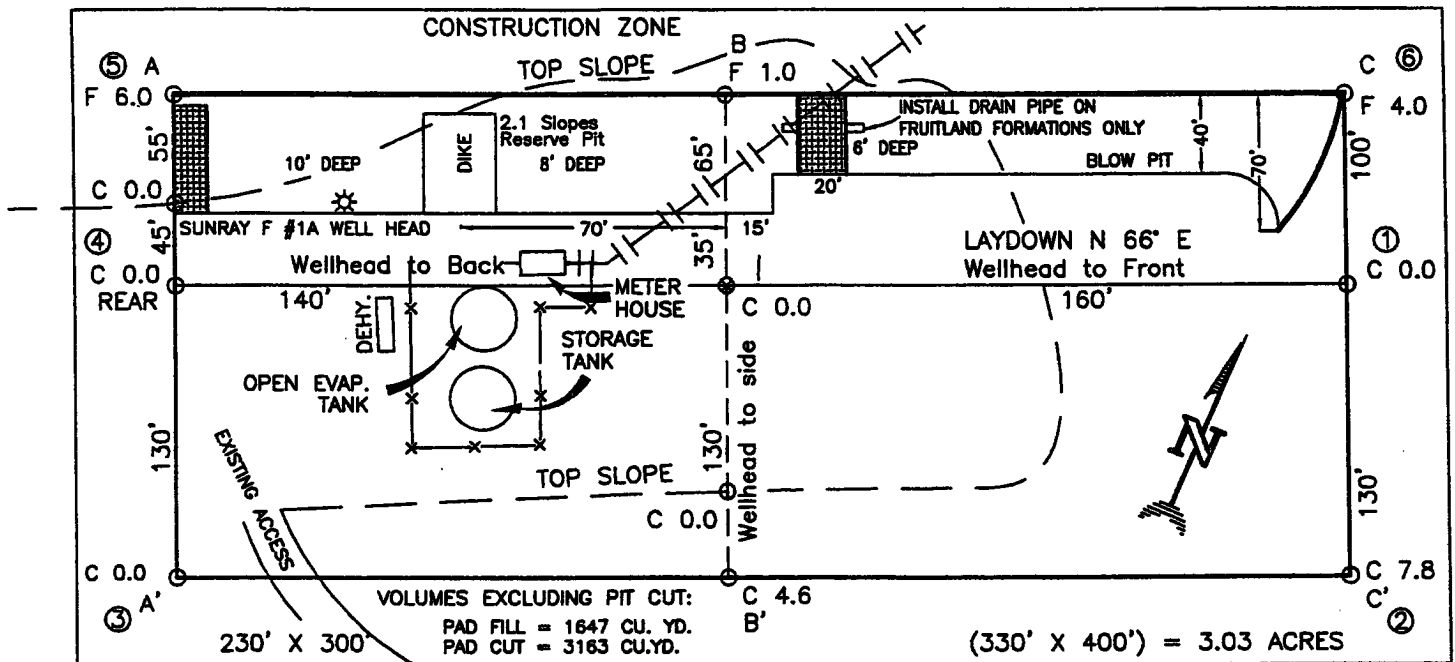
TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. 7B

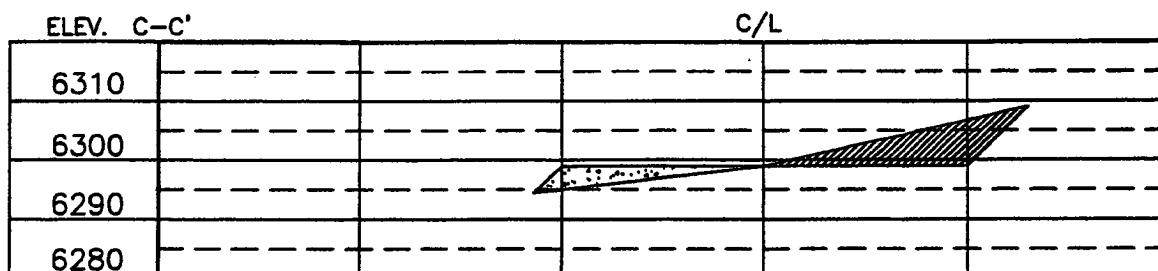
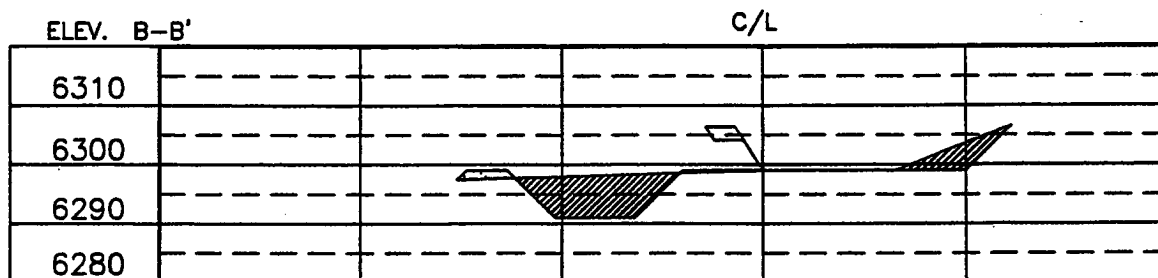
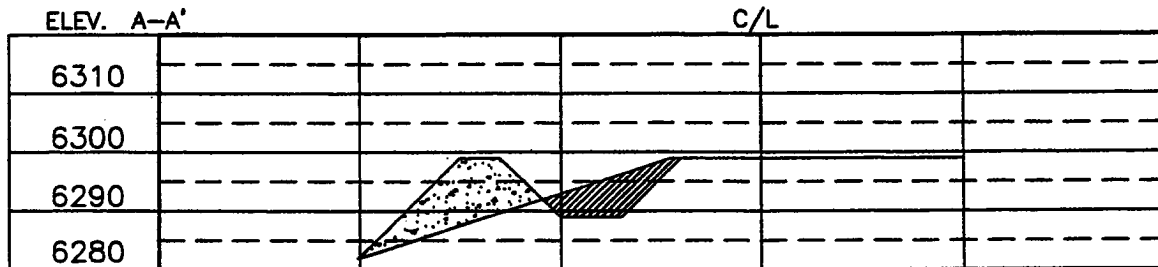
AUG -1 2005

Conditions of Approval (if any):

BURLINGTON RESOURCES OIL & GAS, INC.
SUNRAY F #1M, 1745' FSL 1420' FEL
SECTION 26, T-30-N, R-10-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 6299', DATE: JUNE 20, 2001



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.



REVISED: 7/20/01 MOVED WELL PAD BS

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.

DRAWN BY: B.S. ROW#: BR224 CADFILE: BR224CF8 DATE: 7/02/01

Daggett Enterprises, Inc.
 Surveying and Oil Field Services
 P. O. Box 15068 Farmington, NM 87401
 Phone (505) 328-1772 Fax (505) 328-8019

OPERATIONS PLAN

Well Name: Sunray F #1M
Location: Surface - 1745' FSL, 1420' FEL, Section 26, T-30-N, R-10-W
Bottom Hole - 660' FSL, 660' FEL, Section 26, T-30-N, R-10-W
San Juan County, New Mexico
Surface -Latitude 36° 46.82677'N, Longitude 107° 51.02588'W
Bottom Hole - Latitude 36° 46.71294'N, Longitude 107° 50.94478'W
Formation: Blanco Mesaverde/Basin Dakota
Elevation: 6299' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>TMD Top</u>	<u>TVD Bottom</u>	<u>TMD Contents</u>
Surface	San Jose		1581'	
Ojo Alamo	1581'	1588'	1726'	aquifer
Kirtland	1726'	1737'	2303'	gas
Fruitland	2303'	2326'	2861'	
Pictured Cliffs	2861'	2897'	3006'	gas
Lewis	3006'	3045'	3591'	gas
Huerfanito Bentonite	3591'	3643'	3851'	gas
Chacra	3851'	3909'	4481'	gas
Massive Cliff House	4481'	4553'	4611'	
Menefee	4611'	4686'	5126'	gas
Point Lookout	5126'	5212'	5541'	gas
Mancos	5541'	5637'	6371'	gas
Gallup	6371'	6485'	7116'	gas
Greenhorn	7116'	7247'	7166'	as
Graneros	7166'	7298'	7221'	gas
Two Wells	7221'	7354'	7311'	gas
Paguate	7311'	7446'	7366'	
Cubero	7366'	7503'	7396'	
Oak Canyon	7396'	7533'		
TD	7406'	7543'		

Logging Program:

Cased Hole - CBL-GR-TD to surface

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- 7406'	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 990'. At this point the well will be directionally drilled by building 3.0 degrees per 100' with an azimuth of 144.7 degrees. The end of the build will be at a TVD of 1388', a TMD of 1391', hd of 42' and an angle of 12 degrees. This angle and azimuth will be held to a total depth of 7406' TVD and 7543' MD

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# H-40
8 3/4"	7656'	7406'	4 1/2"	10.5/11.6# J-55/L-80

Tubing Program:

<u>Hole Size</u>	<u>Interval</u>		<u>Size</u>	<u>Weight</u>	<u>Vis.</u>
	<u>TMD</u>	<u>TVD</u>			
2 3/8"	0'	7406'	2 3/8"	4.7#	J-55

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 367 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/1246 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 (2780 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 @ 5137' TMD'. First stage: pump 357 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 889 sxs Premium Lite w/3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS (2780 cu ft of slurry, 20% excess).

BOP and Tests:

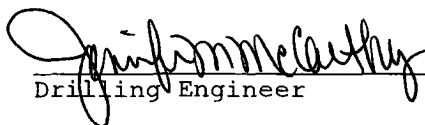
Surface to production TD - 11", 2000 psi double gate BOP stack (Reference Figure #1).
Prior to drilling out surface casing, test ~~rams and~~ casing to 600 psi for 30 minutes.

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:

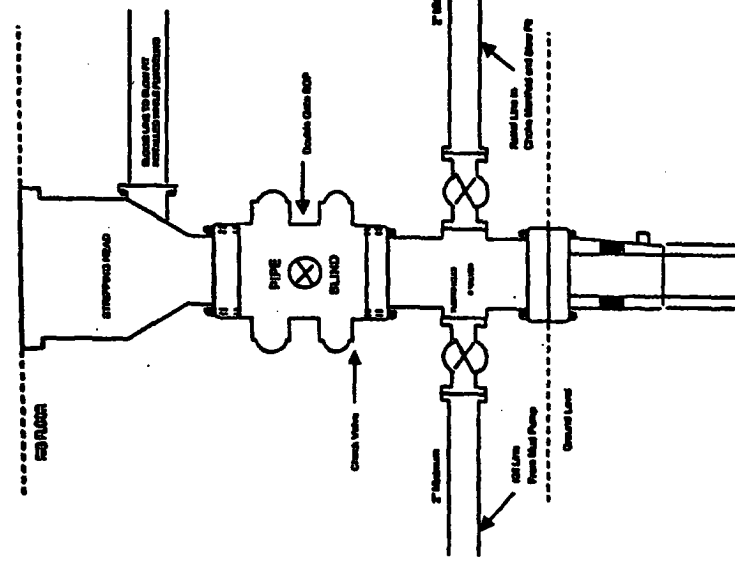
- This gas is dedicated to the east half of Section 26 for the Mesaverde and Dakota formation.
- The gas is dedicated.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.


Drilling Engineer

5-25-05
Date

BURLINGTON RESOURCES

Completion/Workover Rig
BOP Configuration
2,000 psi System



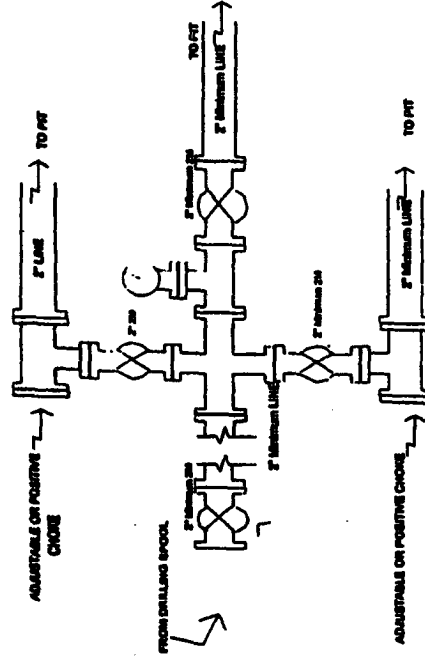
Minimum BOP installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi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

Figure #2

4-20-01

BURLINGTON RESOURCES

Drilling Rig
Choke Manifold Configuration
2000 psi System



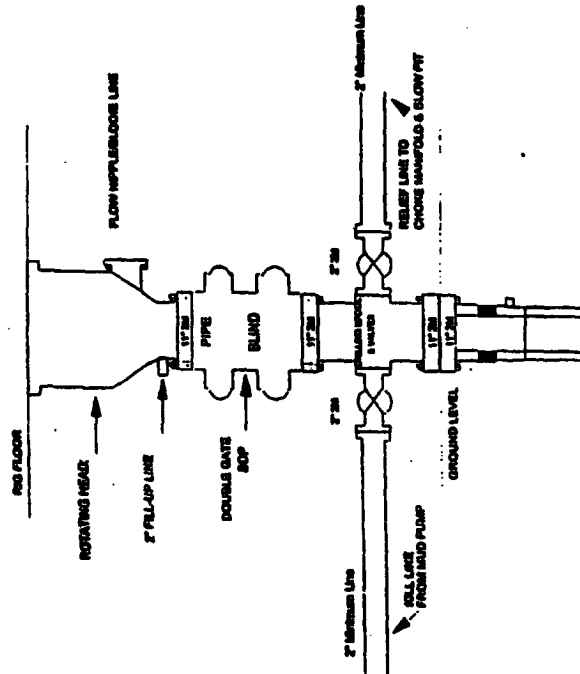
Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

4-20-01

Burlington Resources

Drilling Rig
2000 psi System



BOP installation from Surface Casing Point to Total Depth. 11" Bore 10" Nominal, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A 500 psi rams head on top of ram preventers. All BOP equipment is 2,000 psi working pressure

Figure #1