

2005 AUG 15
RECEIVED
070 FARMINGTON NM
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2005 AUG 15 PM 4 05
RECEIVED
070 FARMINGTON NM

1a. Type of Work DRILL	5. Lease Number NMSF-081155 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 Allison Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name
	9. Well Number #117S
4. Location of Well Unit F (SENW), 2265' FNL, 1555' FWL Latitude 36° 58.0099'N Longitude 107° 28.0242'W	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) F Sec. 21, T32N, R6W API # 30-045-33279
14. Distance in Miles from Nearest Town 20.4 miles to Int Hwy 172 & Hwy 151 in Ignacio, CO	12. County San Juan
	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1555'	
16. Acres in Lease	17. Acres Assigned to Well 320 W/2
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 2061'- Allison Unit #51	
19. Proposed Depth 3168'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6405' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Amanda Sandoval</u> Regulatory Compliance Assistant II	<u>8-15-05</u> Date



PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY [Signature] TITLE Acting AFM DATE 8/29/05

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.

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

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

NMOCD

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

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

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 6784	*Property Name ALLISON UNIT		*Well Number 117S
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP		*Elevation 6405'

¹⁰ Surface Location

UL or lot no. F	Section 21	Township 32-N	Range 6-W	Lot Idn	Feet from the 2265'	North/South line NORTH	Feet from the 1555'	East/West line WEST	County SAN JUAN
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. F	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
*Dedicated Acres 320 W/2		*Joint or Infill		*Consolidation Code		*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

<p>¹⁶ LAT: 36°58.0099' N. LONG: 107°28.0242' W. NAD 1927</p> <p>A. 61.891 S</p> <p>2265'</p> <p>1555'</p> <p>21</p> <p>NM SF-081155</p> <p>SEP 2005 RECEIVED OIL CONS. DIV. DIST. 3</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Patsy Clugston</i> Signature Patsy Clugston Printed Name Sr. Regulatory Specialist Title 7/7/05 Date</p> <p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Date of Survey 6/28/05 Signature and Seal of Professional Surveyor GLEN W. RUSSELL NEW MEXICO 15703 LICENSED PROFESSIONAL SURVEYOR Certificate Number 15703</p>
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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 <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	NMSF-081155
7. Lease Name or Unit Agreement Name	Allison Unit
8. Well Number	117S
9. OGRID Number	14538
10. Pool name or Wildcat	Basin Fruitland Coal

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 F : 2265 feet from the North line and 1555 feet from the West line
Section 21 Township 32N Range 6W NMPM County San Juan NM

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
6405'

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type New Drill Depth to Groundwater < 50' Distance from nearest fresh water well > 1000' Distance from nearest surface water < 1000'
Pit Liner Thickness: 12 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 ☐

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.

Burlington Resources proposes to construct a new drilling pit and an associated vent/flame 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 NMOCD office. A portion of the vent/flame 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 NMOCD office.

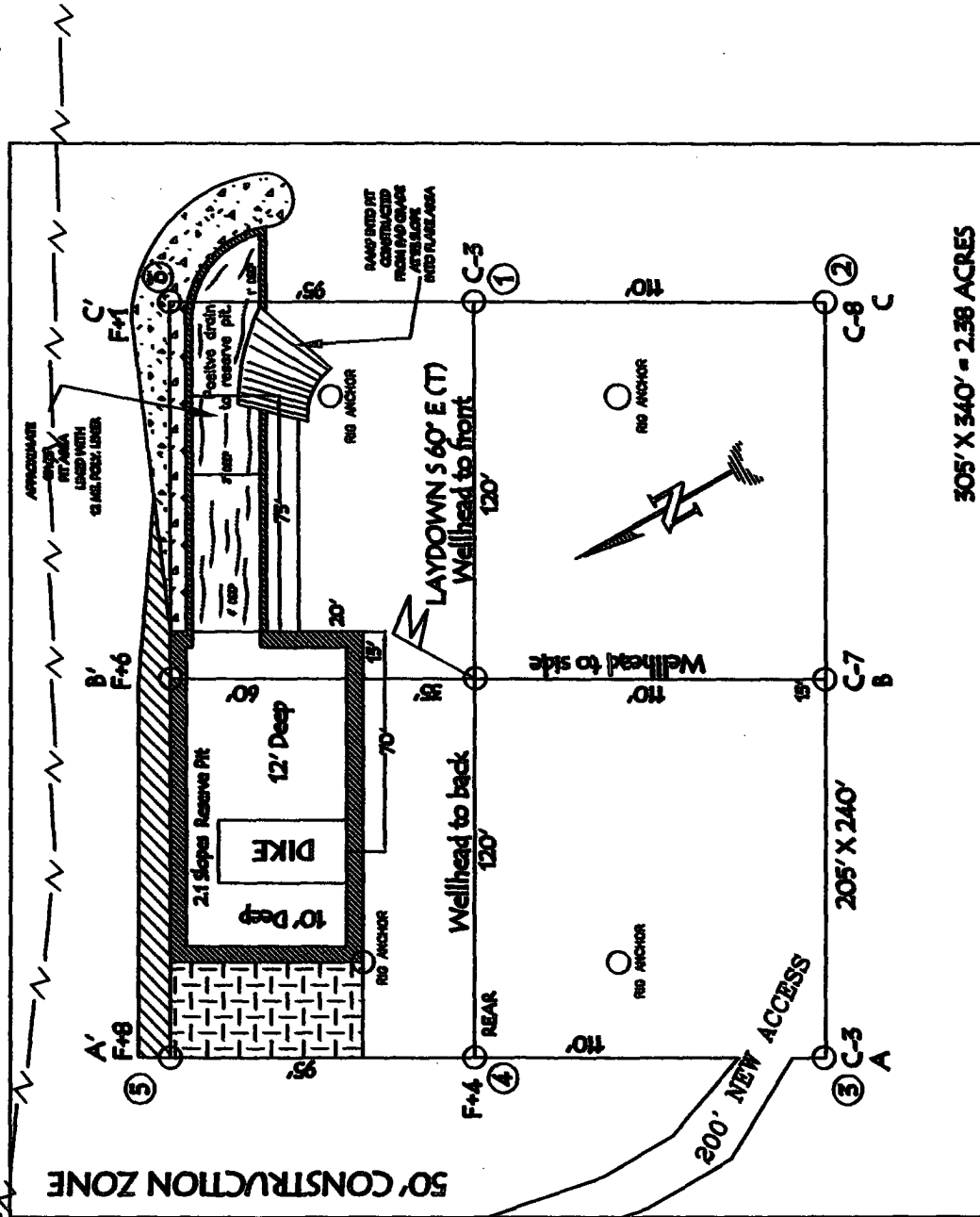
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Amanda Sandoval TITLE Regulatory Assistant II DATE 7/21/2005

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

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE SEP 06 2005
Conditions of Approval (if any): vulnerable area

BURLINGTON RESOURCES OIL & GAS COMPANY LP ALLISON UNIT 117S, 2265' FNL & 1555' FWL SECTION 21, T-32-N, R-6-W, NMPM, SAN JUAN COUNTY, NM GROUND ELEVATION: 6405', DATE: JUNE 21, 2005



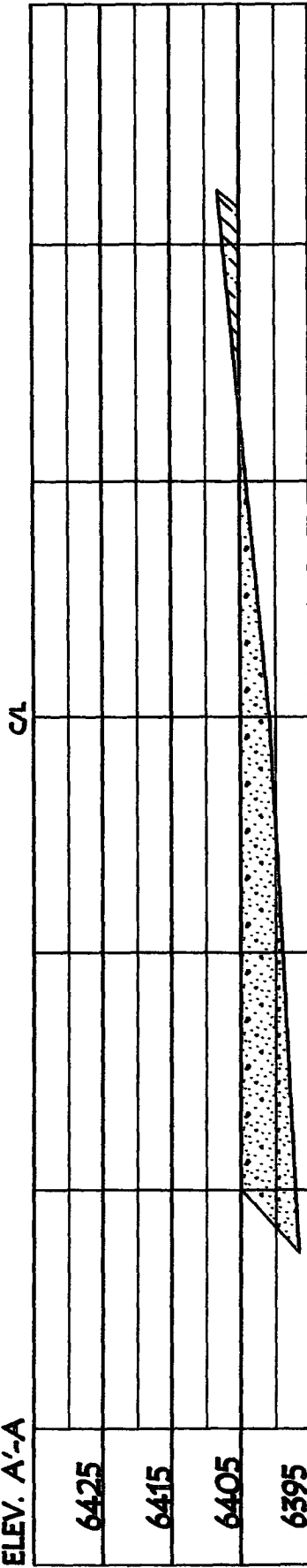
RESERVE PIT DIKE, TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 5' WIDE AND 1' ABOVE SHALLOW SIDE).

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.

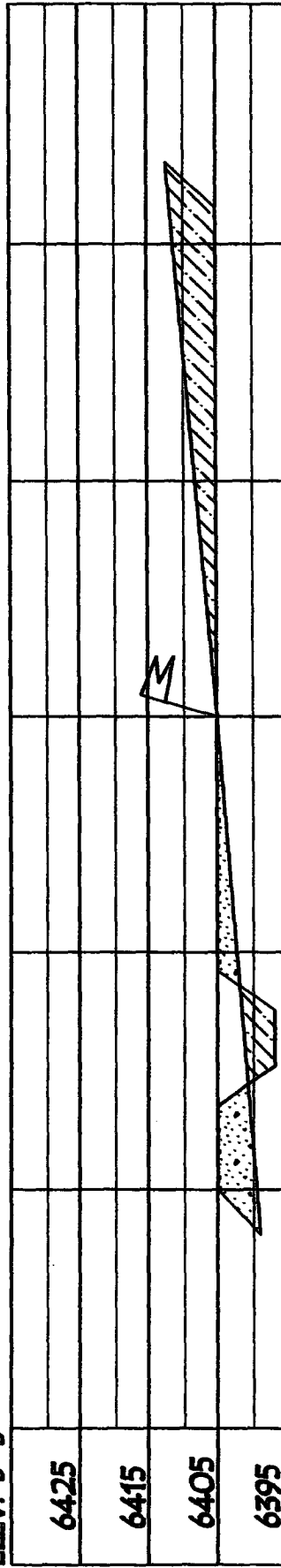
LATITUDE: 36° 58.0099'N LONGITUDE: 107° 28.0242'W NAD27

BURLINGTON RESOURCES OIL & GAS COMPANY LP
ALLISON UNIT 1175, 2265' FNL & 1555' FWL
SECTION 21, T-32-N, R-6-W, NMPM, SAN JUAN COUNTY, NM
GROUND ELEVATION: 6405', DATE: JUNE 21, 2005

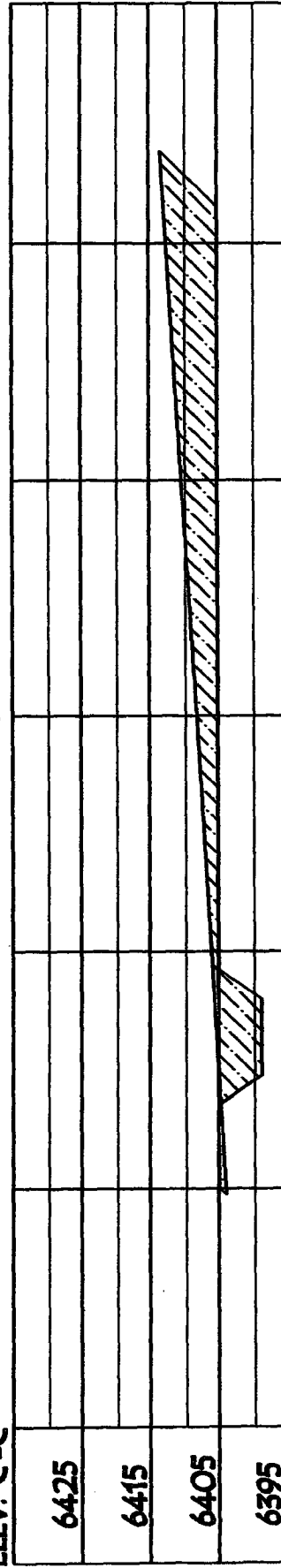
ELEV. A'-A



ELEV. B'-B



ELEV. C'-C



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.

OPERATIONS PLANS FOR FRUITLAND COAL WELLS

Well Name: Allison Unit #117S
Location: Unit F, 2265' FNL, 1555' FWL
Sec. 21 T-32-N, R-6-W
San Juan County, NM
Latitude 36° 58.0099'N
Longitude 107° 28.0242'W
Formation: Basin Fruitland Coal

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2253'	
Ojo Alamo	2253'	2401'	aquifer
Kirtland	2401'	2989'	gas
Top/Fruitland Coal	2989'		gas
Base/Fruitland Coal	3083'		
Intermediate TD	2939'		
Pictured Cliffs	3090'		gas
TD	3168'		

This will be a single producing FC well, and is not an HPA well. Burlington requests permission to use the 85' into the Pictured Cliffs interval as a sump. There will be a mudlogger on site during drilling to verify PC gas isn't reached.

Logging Program:

Mudlog from intermediate to TD
Cores - none

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'- 2939'	LSND/Clear Water/ Starch-Polymer	8.4-9.0	30-60	no control
2939' - 3168'	Air/Mist			

Circulating media will be contractor dependent.

Pit levels will be visually monitored to detect gain or loss of fluid control.

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"	120' - 2939'	7"	20.0#	J-55
6 1/4"	2939'- 3168'	5 1/2"	15.5#	J-55
			or open hole	

Tubing Program:

0' - 3168'	2 3/8"	4.7#	J-55
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BOP and tests:

Surface to intermediate TD - 11" 2000 psi (minimum) double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test BOPE to 600 psi for 30 min.

Intermediate TD to Total Depth - 7 1/6" 2000 psi (minimum) completion BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test BOPE and casing to 1500 psi for 30 minutes.

From surface to 7" TD - a choke manifold will be installed in accordance with Onshore Order No. 2 (Reference Figure #3). When the cavitation completion rig drills the production hole, the completion rig configuration will be used (Reference Figure #4). ~~Choke manifold will be used on cavitation rig operations.~~

Wellhead Equipment: 9 5/8" x 7" x 2 3/8" x 11" 2000 psi xmas 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 drilling crew.
- All BOP tests and 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 ~~w/88sx (113cf) @ 1.28 yield.~~ ^{14.5 ppg, 1.61 ft/sk}
Cement with Type I, II cement with 20% flyash mixed at ~~15.2 ppg, 1.36 ft per sk~~ yield. (Bring cement to surface). Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

9 5/8" surface casing Conventionally w/88sx (113cf) @ 1.28 yield.

Cement with Type III cement with 0.25 pps Celloflake, 3% calcium chloride. (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. 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" S

7" intermediate casing w/345sx ~~(667cf - 10bbls slurry)~~ @ 2.13 yield. Lead with Premium Lite HS FM w/3% CaCl₂, 0.25#/sx Floccelle, 5#/sx LCM-1, 0.4% FL-52 & 0.4% SMS (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.

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. Two turbolating centralizers at the base of the Ojo Alamo. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

Cementing cont.

5 1/2" liner - will not be cemented if run.

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

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

Additional information:

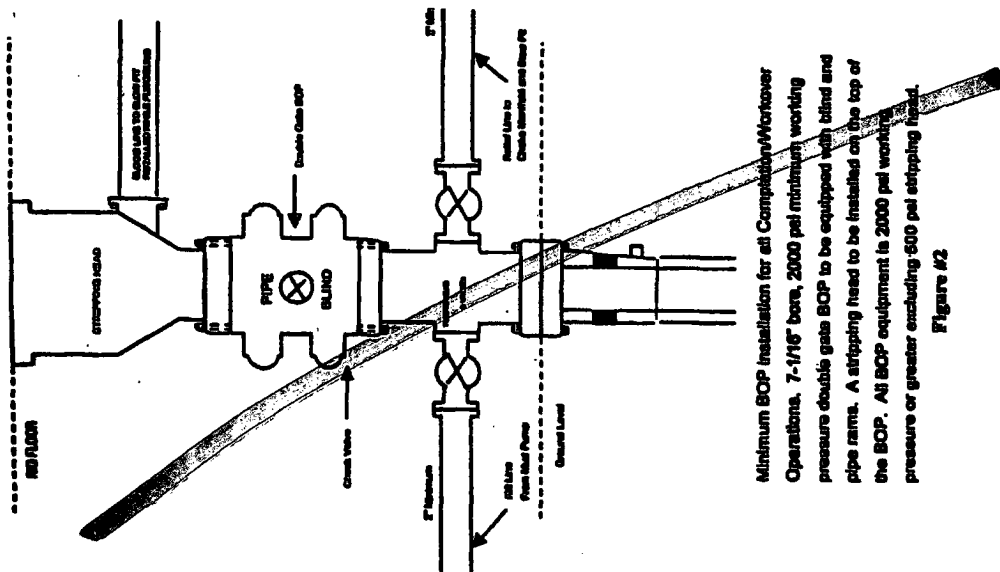
- * The Fruitland Coal formation will be completed.
- * No abnormal temperatures or hazards are anticipated.
- * Anticipated pore pressure for the Fruitland is less than 500 psi.
- * This gas is dedicated.

 - Drilling Engineer

7/21/05
Date

BURLINGTON RESOURCES

Completion/Workover Rig
BOP Configuration
2,000 psi System

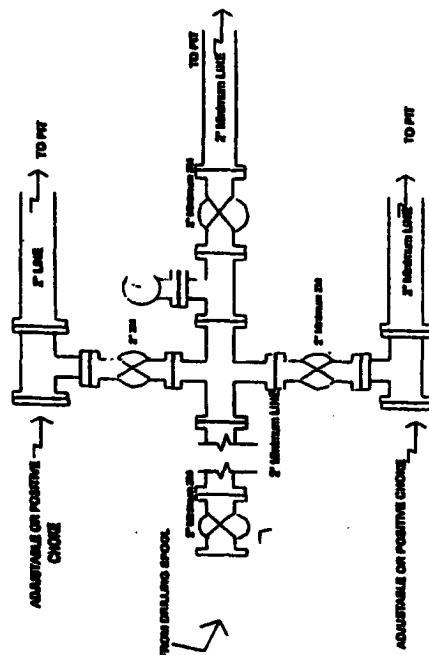


Minimum BOP installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi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

Figure #2

BURLINGTON RESOURCES

Drilling Rig
Choke Manifold Configuration
2000 psi System

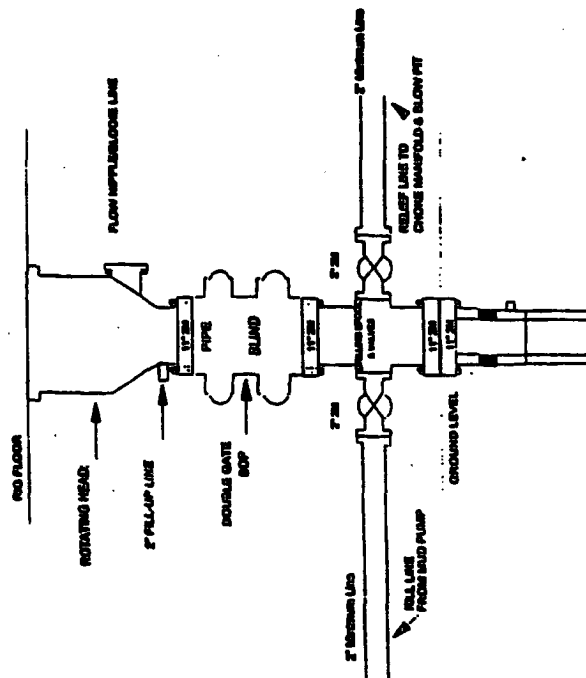


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

Burlington Resources

Drilling Rig
2000 psi System



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 rotating head on top of ram preventers. All BOP equipment is 2,000 psi working pressure.

Figure #1

4-20-01

4-20-01

BURLINGTON RESOURCES

Figure #4
Cavitation Rig
BOP Configuration
2,000 psi Minimum System

