

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work <del>DRILL</del> <i>Deepen</i>	5. Lease Number SF-078459-B Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON RESOURCES</b> 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 Allison Unit 9. Well Number 8	
4. Location of Well 1757' FNL, 990' FEL  Latitude 36° 58.92', Longitude 107° 32.92'	10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 15, T-32-N, R-7-W API# 30-045-11433	
14. Distance in Miles from Nearest Town	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 990'	17. Acres Assigned to Well <i>313.34</i> <sup>30E/2</sup>	
16. Acres in Lease	18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease	
19. Proposed Depth 8300'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6676 GL	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		

24. Authorized by: Frances Bond 5-3-05  
Regulatory Specialist Date

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY [Signature] TITLE AFM DATE 8-16-05

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, 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

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

Form C-102

Permit 10643

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number 30-045-11433	Pool Name BASIN DAKOTA (PRORATED GAS)	Pool Code 71599
Property Code 6784	Property Name ALLISON UNIT	Well No. 008
OGRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS CO	Elevation 6676

**Surface And Bottom Hole Location**

UL or Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
H	15	32N	07W		1757	N	990	E	San Juan
Dedicated Acres 813.34		Joint or Infill		Consolidation Code		Order No.			


**OPERATOR CERTIFICATION**

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

Signed By: *Frances Bend*

Title: Regulatory Specialist

Date: May 3, 2005

**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.*

Surveyed By: C O Walker

Date of Survey: 03/17/1955

Certificate Number: 1007

2005 MAY 3 PM 4 10  
 RECEIVED  
 070 FARMINGTON NM

## OPERATIONS PLAN FOR ALLISON UNIT #8

**Well:** Allison Unit #8  
**Location:** T-32-N, R-7-W, Sect. 15, Unit H; 1757' FNL, 990' FEL  
San Juan County, NM  
Latitude 36° 58.92' Longitude 107° 32.92'

**Formation:** Blanco Mesaverde and Basin Dakota

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose		----
Ojo Alamo	2404'	2502'	aquifer
Kirtland	2502'	3200'	gas
Fruitland	3200'	3510'	gas
Pictured Cliffs	3510'	3729'	gas
Lewis	3729'	4378'	gas
Huerfano Bentonite	4378'	4828'	gas
Chacra	4828'	5610'	gas
Massive Cliff House	5610'	5662'	gas
Menefee	5662'	5854'	gas
Massive Point Lookout	5854'	6294'	gas
Mancos	6294'	7215'	gas
Gallup	7215'	7940'	gas
Greenhorn	7940'	7990'	gas
Graneros	7990'	8104'	gas
Two Wells	8104'		gas
Total Depth	8300'		

**Logging program:**  
Cased hole - CBL-CCL-GR - TD to 6850'

<u>Mud Program:</u>	<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
	6200' – 8300'	Air/Nitrogen	n/a	n/a	n/a

<u>Casing Program:</u>	<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg.Size</u>	<u>Wt.</u>	<u>Grade</u>
	3-7/8"	~6100' – 8300'	3-1/2" Flush	9.3#/'	L-80

<u>Tubing Program:</u>	<u>Tbg.Size</u>	<u>Wt.</u>	<u>Grade</u>
0' – total depth	2-1/16"	3.25#	J-55

### Operations:

It is intended to deepen the subject well to the Dakota formation by the following procedure:

1. MIRU completion rig. TOOH with tubing.
2. Set retrievable bridge plug at +/- 4494'.
3. Pressure test casing to 1000 psi for 15 minutes. TOOH with bridge plug.
4. Lay in acid soluble cement across entire Mesaverde interval. WOC.
5. Drill out cement. Test casing to 500 psi for 15 minutes. Repeat cement work until pressure test holds.
6. Drill out shoe. Drill Dakota formation to approximately 8300' with mud logger to call final total depth. TOOH.
7. TIH with 3-1/2" flush joint pipe and set at total depth.
8. Cement with 30 sxs of type III cement (1.39 yield, 14.5 ppg). WOC. Run CBL. TOC @ 6904'.
9. Perforate and fracture stimulate the Dakota formation. Flow back Dakota.
10. Set composite plug 50' above top Dakota perforation.
11. Chemical cut 3-1/2" casing at +/- 6100'.
12. Acidize Mesaverde interval to restore production.

13. Drill out composite plug above the Dakota. Clean out to PBTD.
14. Land 2-1/16" IJ tubing.
15. RDMO rig. Return well to production as a commingled MV/DK producer.

**BOP Specifications, Wellhead and Tests:****Surface to Total Depth:**

2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

**Completion Operations:**

7 1/16" 3000 psi double gate BOP stack (Reference Figure #4). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 3000 psi for 15 minutes.

**Wellhead:**

9 5/8" x 7" x 4 1/2" x 2 1/16" x 3000 psi tree assembly.

**General Information:**

- 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.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with hand wheels.

**Cementing:****3-1/2" Production Liner**

Cement to cover minimum of 1200' above the Dakota formation. Minimum TOC @ 6904'. 30 sxs type III cement (1.39 yield, 14.5 ppg). WOC a minimum of 18 hrs prior to completing.

**Special Drilling Operations (Gas/Mist Drilling):**

The following equipment will be operational while gas/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.
- 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.
- Deduster equipment will be utilized.
- 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 Mesaverde and/or Dakota formations will be completed and commingled if both formations are completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:  
Dakota                      2400 psi

Angela Ibara  
Sr. Staff Engineer

4/25/05  
Date

# Allison Unit #8

1757' FNL , 990' FEL

Unit H, Section 15, T32N, R07W

San Juan County, NM

LAT: 36 deg 58.92 min

LONG: 107 deg 32.92 min

GL = 6,674'

KB= 6,682'

## Current Wellbore Diagram

### Surface Casing:

9-5/8" 25.4# ASW

Set @ 172'

TOC @ circ to surf

### Intermediate Casing:

7" 23#/20# J-55

Set @ 5,760'

TOC @ 4,300' sqz

Hole is 7" @ 1106'

2 sqz holes at 4620', 75 sxs

### Tubing:

2-3/8" 4.7# J-55

Set @ 5990

Window cut in 7" @ 5392' - 5400'

### Production Casing:

4-1/2" 10.5# J-55

Set @ 6,200'

TOC @ 4,030' CBL

### Existing Stimulations:

Lewis

4544' - 5076'

200000# sand, 70Q foamed 30# linear gel

Point Lookout

5731' - 6020'

100000# sand, Slickwater

PBTD= 6,108'

TD= 6,200'

Ojo Alamo 2404

Kirtland 2502

Fruitland 3200

Pictured Cliffs 3510

Lewis 3729

Heur Bent. 4378

Chacra 4828

Cliff House 5610

Menefee 5662

Point Lookout 5854

Mancos 6294' est

Gallup 7215' est

Greenhorn 7940' est

Graneros 7990' est

Two Wells 8104' est

### Main Hole P&A:

2 sqz holes @ 4300', 4700', cmt w/ 125 sxs

No test, perf 4300', sqz w/ 50 sxs

2 sqz holes @ 5150', cmt ret @ 5008'

200 sxs below, 1 bbl on top (drilled out)

Cement retainer @ 5542'

219 sxs below, 1 bbl on top

Oil frac 5760' - 6010'

15,370 gal oil, 12,100# sand

Main Hole TD - 6155' Open Hole

LW: 4544', 47', 50', 53', 56', 61', 64', 67', 84', 87', 93', 96', 99', 4604', 06', 4872', 75', 78', 87', 90', 93', 95', 4901', 04', 07', 65', 68', 71', 74', 77', 5020', 23', 26', 33', 36', 39', 72', 74', 76

PLO: 5731', 34', 37', 42', 44', 94', 97', 5856', 60', 72', 76', 81', 84', 90', 94', 5900', 06', 12', 17', 22', 34', 54', 59', 75', 6009', 12', 20'

# Allison Unit #8

1757' FNL , 990' FEL  
Unit H, Section 15, T32N, R07W  
San Juan County, NM

LAT: 36 deg 58.92 min  
GL = 6,674'

LONG: 107 deg 32.92 min  
KB= 6,682'

## Proposed Wellbore Diagram

### Surface Casing:

9-5/8" 25.4# ASW  
Set @ 172'  
TOC @ circ to surf

### Intermediate Casing:

7" 23#/20# J-55  
Set @ 5,760'  
TOC @ 4,300' sqz

Hole is 7" @ 1106'

### Tubing:

2-1/16" 3.25# J-55  
Set @ TBD

2 sqz holes at 4620', 75 sxs

Window cut in 7" @ 5392' - 5400'

### Production Casing:

4-1/2" 10.5# J-55  
Set @ 6,200'  
TOC @ 4,030' CBL

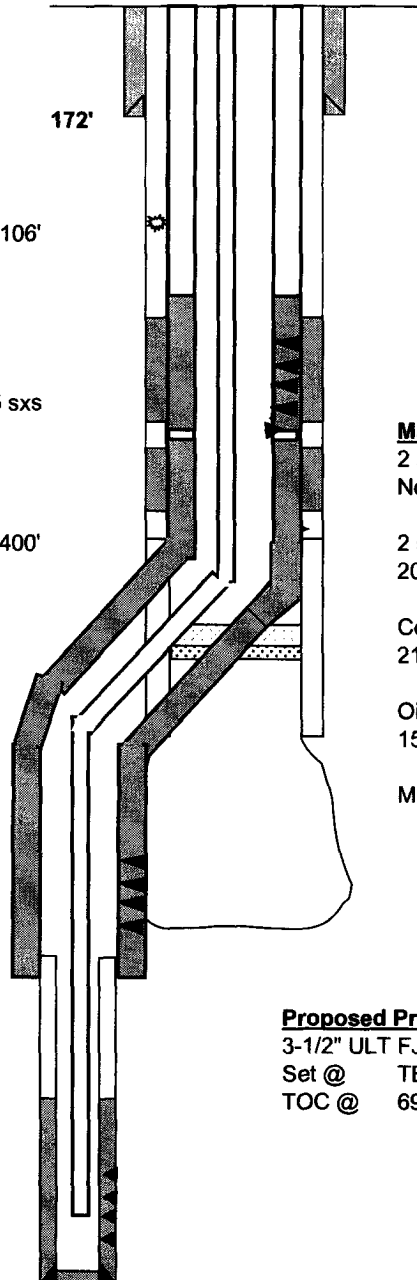
### Existing Stimulations:

Lewis  
4544' - 5076'  
200000# sand, 70Q foamed 30# linear gel

Point Lookout  
5731' - 6020'  
100000# sand, Slickwater

### Proposed Stimulation:

Dakota  
TBD  
40000# TLC, Slickwater frac



Ojo Alamo	2404
Kirtland	2502
Fruitland	3200
Pictured Cliffs	3510
Lewis	3729
Heur Bent.	4378
Chacra	4828
Cliff House	5610
Menefee	5662
Point Lookout	5854
Mancos	6294' est
Gallup	7215' est
Greenhorn	7940' est
Graneros	7990' est
Two Wells	8104' est

### Main Hole P&A:

2 sqz holes @ 4300', 4700', cmt w/ 125 sxs  
No test, perf 4300', sqz w/ 50 sxs

2 sqz holes @ 5150', cmt ret @ 5008'  
200 sxs below, 1 bbl on top (drilled out)

Cement retainer @ 5542'  
219 sxs below, 1 bbl on top

Oil frac 5760' - 6010'  
15,370 gal oil, 12,100# sand

Main Hole TD - 6155' Open Hole

### Proposed Production Liner:

3-1/2" ULT FJ 9.2# L-80  
Set @ TBD  
TOC @ 6904

PBTD= 8228' est  
TD= 8300' est

# Deepening Project

## BURLINGTON RESOURCES

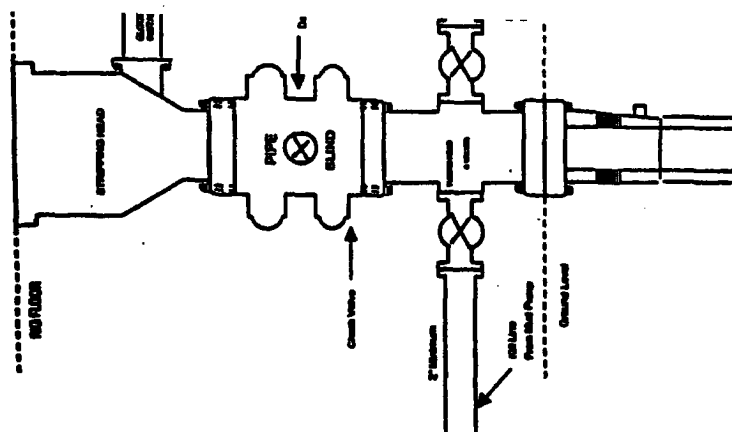
Completion/Workover R/BOP Configuration  
2,000 psi System

## BURLINGTON RESOURCES

Drilling Rig  
Choke Manifold Configuration  
2,000 psi System

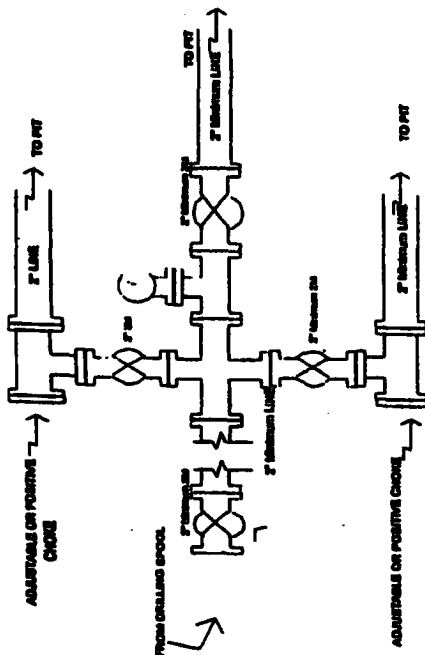
## Burlington Resources

Drilling Rig  
2000 psi System



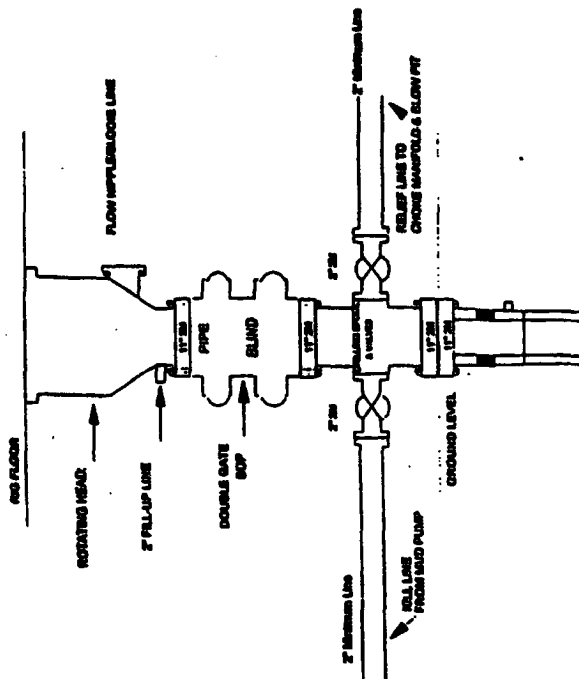
Minimum BOP Installation for all Completion Operations. 7-1/16" bore, 2000 psi minimum pressure double gate BOP to be equipped pipe rams. A stripping head to be installed the BOP. All BOP equipment is 2000 psi pressure or greater excluding 500 psi set

Figure 1



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

Figure #3



BOP Installation from Surface Casing Point to Total Depth. 11\"/>

Figure #1

4-20-01

4-20-01