ONTIED STATES						
DEPARTM	INE	OF	THE	INTER	IOR	
BURRAU	OF	LAN	ID M	NAGEM	ENT	

			5.	Lease Number
				SF-079049B
Type of Well			6.	
GAS	to the state of th	÷.		Tribe Name
	······································		7.	Unit Agreement Nam
Name of Operator				
BURLINGTON				
RESCURCES OIL	GAS COMPANY			San Juan 28-6 Unit
and the second			8.	
Address & Phone No. of Operator PO Box 4289, Farmington, NM			9.	San Juan 28-6 U #1 API Well No.
PO BOX 4289, Fallilligeon, Nr.	87433 (303) 320-3700		٦.	30-039-26296
Location of Well, Footage, Se	c., T, R, M		10.	Field and Pool
2195'FNL, 530'FWL, Sec.33, T-				Blanco MV/Basin DK
			11.	County and State
				Rio Arriba Co, NM
. CHECK APPROPRIATE BOX TO INC	TCATE NATION OF MOTICE	DEDOD™	OTHER	DATTA
Type of Submission	Type of Act		OIHER	DAIA
X Notice of Intent		Change	of Pla	ans
		_ New Con		
Subsequent Report	Plugging Back			Fracturing
Final Abandonment	Casing Repair Altering Casing	_ Water S		rr o Injection
Final Abandonment	X Other -	_ convers	ion c	J Injection
	<b>-</b> -			
. Describe Proposed or Compl	-	nrevious	lv an	oroyed San Juan
It is intended to add the 28-6 Unit #33B. Th #116N. Attached is	-	nged to t ations pl	he San	Juan 28-6 Unit
It is intended to add the 28-6 Unit #33B. Th #116N. Attached is	Dakota formation to the e well name will be cha a new C-102 plat, oper	nged to t ations pl	he San	Juan 28-6 Unit
It is intended to add the 28-6 Unit #33B. The #116N. Attached is diagrams, and prod	Dakota formation to the e well name will be cha a new C-102 plat, oper	nged to t ations pl am.	he San	Juan 28-6 Unit
It is intended to add the 28-6 Unit #33B. The #116N. Attached is diagrams, and prod	Dakota formation to the well name will be cha a new C-102 plat, oper action facilities diagr	nged to tations plam.	he San	Juan 28-6 Unit

DISTRICT | P.O. Box 1980, Hobbs, N.M. 88241-1980 State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994
Instructions on back
to Appropriate District Office

Submit to Appropriate District Office

State Lease — 4 Copies Fee Lease — 3 Copies

DISTRICT II P.O. Drawer DD, Artesia, N.M. 88211-0719

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

DISTRICT IV PO Box 2088, Santa Fe, NM 87504-2088

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

# WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>2</sup> Pool Code	<sup>3</sup> Pool Name	
72319 /71599	Blanco Mesaverde/B	asin Dakota
		<sup>6</sup> Well Number
SAN JUAN	N 28-6 UNIT	116N
*Opera	otor Name	<sup>®</sup> Elevation
BURLINGTON RESOURCE	ES OIL & GAS COMPANY	6465'
	72319 /71599  *Proper SAN JUAI  *Oper	100 000

<sup>10</sup> Surface Location

UL or 1	lot no. E	Section 33	Township 28—N	Range 6-W	Lot Idn	Feet from the 2195	North/South line NORTH	530	WEST	RIO ARRIBA	ĺ
				<sup>11</sup> Botto	m 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

The Dedicated Acres 5  $p^{13}$  Joint or Infill  $p^{14}$  Consolidation Code  $p^{15}$  Order No.  $p^{14}$  DK-N/320

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

FD. U.S.G.LO. S 89-58-18 E BC. 1914 2637.6' (M)	FD. U.S.G.L.OO S 89-56-47	BC. 1914	17 OPERATOR CERTIFICATION  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
2195'			Beary Cale
SF-07  LAT. = 36° 37.2' N. LONG. = 107 28.8' W.	79049-B		Peggy Cole Printed Name Regulatory Administrator Title
11	$====33^{r}$    Reissued to	add Dakota	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
NMSF-	-079051 formation		or under my supervision, and that the same is true and correct to the best of my belief.  Date of Surv.  Signature and spa of processions Gurayors
	east Ka	Ziladia ,	8894 SEE SSIONAL LANGE
			8894 Certificate Number

#### OPERATIONS PLAN

Well Name: San Juan 28-6 Unit #116N

2195'FNL, 530'FWL, Section 33, T-28-N, R-6-W

Rio Arriba County, New Mexico

Latitude 36° 37.2, Longitude 107° 28.8

Formation: Blanco Mesa Verde/Basin Dakota

Elevation: 6465'GL

Formation Tops:	<u>Top</u>	Bottom	Contents
Surface	San Jose	2392′	
Ojo Alamo	2392 <b>'</b>	2602'	aquifer
Kirtland	2602 <b>'</b>	2832'	
Fruitland	2832'	3252'	gas
Pictured Cliffs	3252'	3352'	gas
Lewis	3352 <b>′</b>	3802'	gas
Intermediate TD	3452'		
Huerfanito Bentonite	3802 <b>'</b>	4167′	gas
Chacra	4167'	4872'	gas
Cliff House	4872 <b>'</b>	5002 <b>'</b>	
Menefee	5002 <b>'</b>	5402 <b>'</b>	gas
Point Lookout	5402'	5907 <b>'</b>	gas
Mancos	5907 <b>′</b>	6637 <b>′</b>	gas
Gallup	6637 <b>′</b>	7375 <b>′</b>	gas
Greenhorn	7375'	7437'	gas
Graneros	7437'	7475'	gas
Dakota	7475 <b>′</b>		gas
TD	7723′		

#### Logging Program:

Mud logs - none

Open hole - none

Cased hole - CBL-CCL-GR - TD to surface

Cores - none

#### Mud Program:

•	rrogram.				
	Interval	Туре			Fluid Loss
	0- 200'	Spud	8.4-9.0	40-50	no control
	200- 3452'	LSND	8.4-9.0	30-60	no control
	3452- 7723'	Air/N2	n/a	n/a	n/a

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

### Casing Program (as listed, the equivalent, or better):

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0' - 200'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3452'	7"	20.0#	J-55
6 1/4"	3352' - 7723'	4 1/2"	10.5#	K-55

#### Tubing Program:

0' - 7723' 2 3/8" 4.7# J-55

#### BOP Specifications, Wellhead and Tests:

#### Surface to Intermediate TD -

11" 3000 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" 3000 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.

#### Surface to Total Depth -

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

#### Completion Operations -

7 1/16" 3000 psi double gate BOP stack (Reference Figure #3). 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 2 3/8" x 3000 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
- 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 - cement with 159 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. 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 w/358 sx 50/50 Class "G" TXI Liteweight cement with 2% calcium chloride, 2.5% sodium metasilicate, 10 pps Gilsonite and 0.5 pps Celloflake. Tail w/90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.25 pps Celloflake (1037 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

See attached alternative intermediate lead slurry.

7" intermediate casing alternative two stage: Stage collar 2732'. First stage: cement with w/169 sx Class "G" 50/50 poz w/28 gel, 28 calcium chloride, 5 pps gilsonite, 0.25 pps Celloflake. Second stage: 318 sx 50/50 Class "G"/TXI Liteweight with 28 calcium chloride, 2.58 sodium metasilicate, 10 pps Gilsonite, 0.25 pps Celloflake (1037 cu.ft., 1008 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 at 2602'. Two turbolating centralizers at the base of the Ojo Alamo at 2602'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

### 4 1/2" Production Liner -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 436 sx 50/50 Class "G" Poz with 5% gel, 0.25 pps Celloflake, 5 pps Gilsonite (628 cu.ft.), 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float shoe on bottom with float collar spaced on top of float shoe.

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

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 4 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 4 1/2" x 7" casing strings. After completion of the well, a 4 1/2" retrievable bridge plug will be set below the top of cement in the 4  $1/2" \times 7"$  overlap. The 4 1/2" casing will then be backed off above the top of cement in the 4 1/2" x 7" overlap and laid down. The 4 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

• 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 (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.
- 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.
- 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 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 700 psi Mesa Verde Dakota 2500 psi

- · Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The west half of Section 33 is dedicated to the Mesaverde and the north half of Section 33 is dedicated to the Dakota in this well.
- This gas is dedicated.

man D. Short Drilling Engineer

12/14/01

## Alternative Intermediate Lead Slurry

#### Dowell-

Class G: D49(50:50) w/ 2.5% D79, 2% S1, 10pps D24, .5pps D29, .2%D46

## where: D49-TXI Light weight Cement

D79-Sodium Metasilicate

S1-Calcium Chloride

D24-Gilsonite

D46-Antifoam Agent

## Properties-

Density:11.4 lb/gal

Yield:2.58 cu ft./sk

Water:14.55 gal/sk

Thick Time 70 b.c.(deg F): 4:06(101)

Free Water:0

Fluid Loss:462ml/30 min

CS(crush)@24hr:394

CS(crush)@48hr:550

#### Halliburton-

Class H 47#/sk, 37#/sk Blended Silicalite, 3% Bentonite, 4% Calcium Chloride

## Properties-

Density:11.4 lb/gal

Yield:2.42 cu.ft./sk

Water:14.02 gal/sk

Thick Time(70 bc): 11:00+

Fluid Loss: 702 cc/30min

Free Water: 0%

Compressive Strength (@25:19):500

Compressive Strength (@48:00):630

**BURLINGTON RESOURCES** 

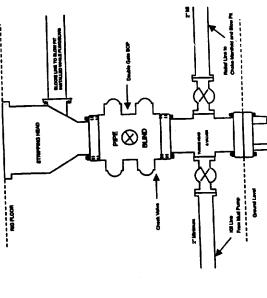
Burlington Resources

3000 psi System **Drilling Rig** 

Drilling Rig Choke Manifold Configuration 3000 psi System



3,000 pel System



THOU THE

TUM

ADJUSTABLE OR POSITIVE
CHOIGE

PLOW NIPPLESTOOKE LINE

ROTATING HEAD:

T PILLUP LINE

NO PLOOR

FROM DIRECTING SPOOL

11.38

DOUBLE GATE \_\_

CHOICE MANIFOLD & BLOW PIT

GROUND LEVEL

pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of Minimum BOP installation for all Completion-Workover Operations. 7-1/16" bore, 3000 pal minimum working pressure or greater excluding 500 psi stripping head. the BOP. All BOP equipment is 3000 psi working

Figure #3

Figure #1

4-20-01

Point to Total Depth. 3,000psi working pressure equipment with two chokes.

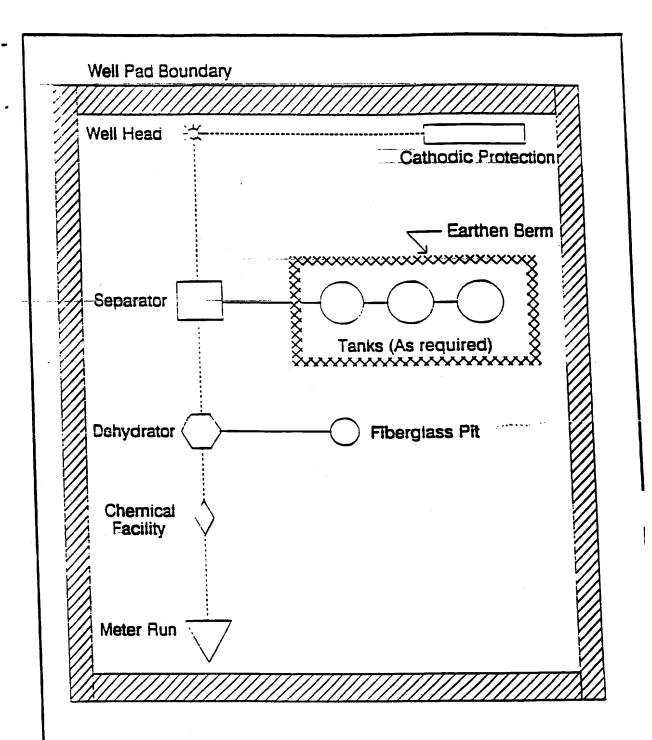
Choke manifold installation from Surface Casing

ADJUSTABLE OR POSITIVE CHOKE

Figure #2

4-20-01

4-20-01



PLAT #1

ANTICIPATED
PRODUCTION FACILITIES
FOR A
DAKOTA WELL

24 N