



# STATE OF NEW MEXICO

# ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

# OIL CONSERVATION DIVISION

2040 S. PACHECO SANTA FE, NEW MEXICO 87505 (505) 827-7131

June 20, 1997

RECEIVED N JUN 2 6 1997

Burlington Resources Oil & Gas Company P. O. Box 4289 Farmington, New Mexico 87499-4289 Attention: Peggy Bradfield

OIL CON. DIV. DIST. 3

Administrative Order NSL-3808

Dear Ms. Bradfield:

Reference is made to your application dated May 9, 1997 for an unorthodox "infill" gas well location for both the Blanco-Mesaverde and Basin-Dakota Pools for the proposed San Juan "28-6" Unit Well No. 205-M to be drilled 1570 feet from the North line and 2415 feet from the West line (Unit F) of Section 9, Township 27 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

Production from the Basin-Dakota Pool is to be included in an existing standard 320-acre gas spacing and proration unit comprising the N/2 of said Section 9 which is currently dedicated to your San Juan "28-6" Unit Well No. 205 (API No. 30-039-20850), located at a standard gas well location 1800 feet from the North line and 1840 feet from the East line (Unit G) of said Section 9 and production from the Blanco-Mesaverde Pool is to be included in an existing standard 320-acre gas spacing and proration unit comprising the N/2 of said Section 9 which is currently dedicated to Burlington's San Juan "28-6" Unit Well No. 23 (API No. 30-039-07104), located at a standard gas well location 1090 feet from the South line and 1100 feet from the West line (Unit M) of said Section 9.

By the authority granted me under the provisions of Rule 2(d) of the "General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool/Special Rules and Regulations for the Basin-Dakota Pool", as promulgated by Division Order No. R-8170, as amended, the above-described unorthodox "infill" gas well location for the San Juan "28-6" Unit Well No. 205-M is hereby approved.

Sincerely,

William J. Director

LeMav.

WJL/ME\$

cc:

Oil Conservation Division - Aztec

U. S. Bureau of Land Management - Farmington

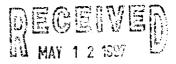
# BURLINGTON RESOURCES

SAN JUAN DIVISION

May 9, 1997

Sent Federal Express

Mr. William LeMay New Mexico Oil Conservation Division 2040 South Pacheco Santa Fe, New Mexico 87505



OIL COM. DIV.

Re:

xc:

San Juan 28-6 Unit #205M

1570'FNL, 2415'FWL Section 9, T-27-N, R-6-W, Rio Arriba County, New Mexico

API # 30-039-(not yet assigned)

Dear Mr. LeMay:

Burlington Resources is applying for administrative approval of a non-standard location for the above location in both the Mesa Verde and Dakota formations. This application for the referenced location is at the request of the Bureau of Land Management to minimize new surface disturbance.

The following attachments are for your review:

- 1. Application for Permit to Drill.
- Completed C-102 at referenced location.
- 3. Offset operators/owners plat, and certification of notification
- 4. 7.5 minute topographic map showing the orthodox windows, and enlargement of the map to define topographic features.

We appreciate your earliest consideration of this application.

Peggy Bradfield
Regulatory/Compliance Representative

Bureau of Land Management NMOCD - Aztec District Office

WAIVER

		<del></del>				
	hereby wa	ives objection to Burlin	gton Resources'	application	for	a non
stand	dard location for their Sar	Juan 28-6 Unit #205N	1 as proposed a	bove.		
By:		Date:				
xc:	Unocal Corp					

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Sundry Notice	s and Reports on Wells	<u></u>	
			Lease Number
1. Type of Well		_	SF-079049C If Indian, All. or
GAS			Tribe Name
2. Name of Operator		7.	Unit Agreement Name
BURLINGTON RESOURCES			
		8.	San Juan 28-6 Unit Well Name & Number
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 8		9.	San Juan 28-6 U #205M API Well No. 30-039-
4. Location of Well, Footage, Sec.	, T, R, M	10.	Field and Pool
1570'FNL, 2415'FWL Section 9,	T-27-N, R-6-W	11.	Blanco MV/Basin Dk County and State Rio Arriba Co., NM
Subsequent Report Final Abandonment 13. Describe Proposed or Complete	Plugging Back Casing Repair Altering Casing Other -	New Construc Non-Routine Water Shut o Conversion to	Fracturing ff
Attached is a C102 plat showing the r topographic map, and well.	evised location of this well. A pipeline survey map. An Appl	also attached is a re ication for Permit to	evised cut and fill diagram, o Drill has been submitted for t
14. I hereby certify that the for	oregoing is true and control of Title Regulatory Adm		5/8/97
(This space for Federal or State of APPROVED BY	Office use)Title	Date	
CONDITION OF APPROVAL, if any:			

# **UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT**

	APPLICATION FOR PERMIT TO DRILL, DE	
а.	Type of Work  DRILL	5. Lease Number SF-079049C Unit Reporting Number 891001051B-Dk
b.	Type of Well GAS	8910010510-MV 6. If Indian, All. or Tribe
	Operator	7. Unit Agreement Name
	BURLINGTON RESOURCES Oil & Gas Company	San Juan 28-6 Unit
	Address & Phone No. of Operator	8. Farm or Lease Name
•	PO Box 4289, Farmington, NM 87499	San Juan 28-6 Unit
	(505) 326-9700	9. Well Number 205M
	Location of Well	10. Field, Pool, Wildcat
	1070'FNL, 1520'FWL	Blanco Mesa Verde/ Basin Dakota
	Latitude 36° 35.6, Longitude 107° 28.5	11. Sec., Twn, Rge, Mer. (NMPM)  Sec 9, T-27-N, R-6-9
	•	API# 30-039-
4.	Distance in Miles from Nearest Town 7 miles to Gobernador	12. County 13. State Rio Arriba NM
5.	Distance from Proposed Location to Nearest Property or Le	ase Line
6.	Acres in Lease	17. Acres Assigned to Well 320 W/2
8.	Distance from Proposed Location to Nearest Well, Drlg, Cor	npl, or Applied for on this Lease
9.	Proposed Depth	20. Rotary or Cable Tools
	7610'	Rotary
21.	Elevations (DF, FT, GR, Etc.) 6468' GR	22. Approx. Date Work will Start
23.	Proposed Casing and Cementing Program See Operations Plan attached	
24.	Authorized by: Sway Shaahield	1-13-97
	kegulatory/Compliance Administ	rator Date
PERN	NIT NO APPROV	AL DATE

Archaeological Report to be submitted
Threatened and Endangered Species Report to be submitted
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

District I PO Box 1980, Hobbs, NM 88241-1980 District II PO Drawer OD, Artena, NM 88211-0719 District III 1000 Rio Brazon Rd., Aziec, NM 87410 District IV

# State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 Form C Revised February 21. :

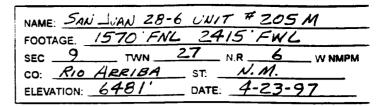
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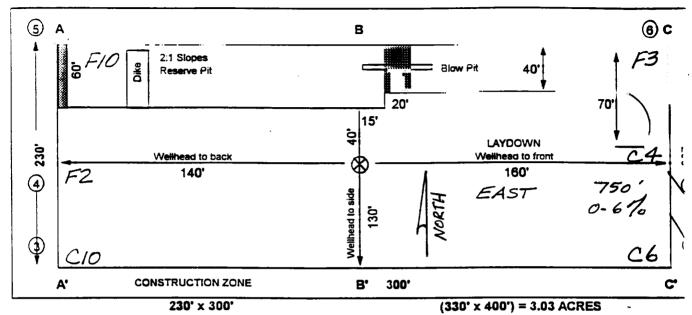
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7462				Sa	n Juan 2	8-6 Unit		205M		
' OGRID	No.		,	<u> </u>	' Operate	r Name		' Dans		
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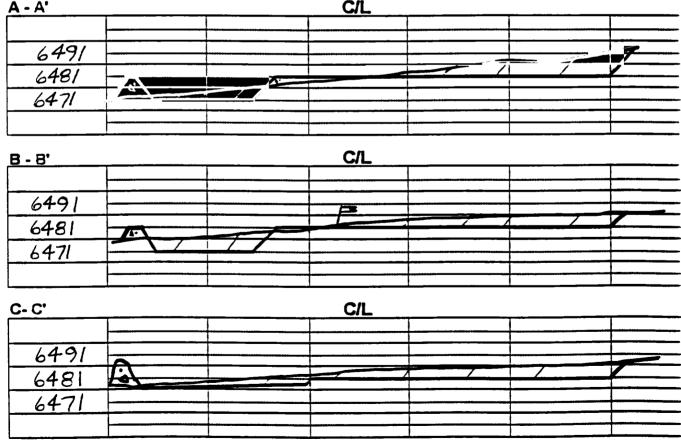
# BURLINGTON RESOURCES PLAT #1



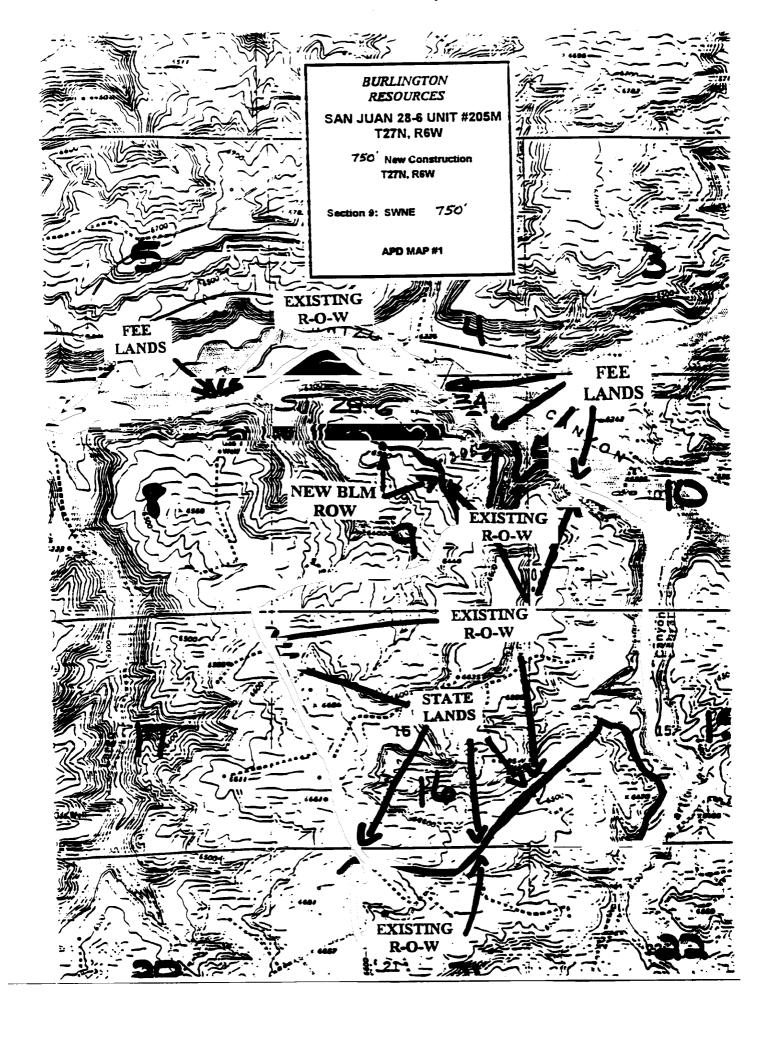


Reserve Pit Dike: to be 8' above Osep side (overflow - 3' wide and 1' above shallow side).

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 call on well pad and/or access road at least two (2) working days prior to construction.



# OPERATIONS PLAN

Well Name: San Juan 28-6 Unit #205M

Location: 1070'FNL, 1520'FWL Sec 9, T-27-N, R-6-W

Rio Arriba County, NM

Latitude 36° 35.6, Longitude 107° 28.5

Formation: Blanco Mesa Verde/Basin Dakota

Elevation: 6468'GL

Formation Tops:	Top	Bottom	Contents
Surface	San Jose	2420'	
Ojo Alamo	2420'	2790 <b>'</b>	aquifer
Fruitland	2790'	2790'	gas
Pictured Cliffs	3160'	3285'	gas
Lewis	3285'	3605'	gas
Intermediate TD	3335'		
Mesa Verde	3605'	4120'	gas
Chacra	4120'	4800′	_
Massive Cliff House	4800'	4945'	gas
Menefee	4945'	5 <b>350'</b>	gas
Massive Point Lookout	5 <b>350'</b>	6540'	gas
Gallup	6540′	7280′	gas
Greenhorn	7280'	7380'	gas
Graneros	7380'	7478'	gas
Dakota	7 <b>478′</b>		gas
TD (4 1/2"liner)	7610'		

# Logging Program:

Cased hole - CBL - TD to 200' above TOC, GR/CNL across MV/Dk

# Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200	Spud		40-50	no control
200-3335'	LSND	8.4-9.0	30-60	no control
3335-7610'	Gas	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.	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3335'	7"	20.0#	J-55
6 1/4"	3235' - 6855'	4 1/2"	10.5#	K-55
6 1/4"	6855' - 7610'	4 1/2"	11.6#	K-55

# Tubing Program:

0' - 7610' 2 3/8" 4.70# EUE

# 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, 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, 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 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 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 - cement with 163 sx Class "B" cement with 1/4# flocele/sx and 2% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 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/267 sx Class "B" w/3% medisilicate, 10# gilsonite/sx and 1/2# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% calcium chloride (877 cu.ft. of slurry, 75% excess to circulate to surface.) WOC minimum of 12 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.

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 2790'. Two turbolating centralizers at the base of the Ojo Alamo at 2790'. 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 109 sx 65/35 Class "B" poz with 68 gel, 5# gilsonite/sx and 1/4# flocele/sx. Tail with 315 sx 50/50 Class "B" Poz with 1/4# flocele/sx, 5# gilsonite/sx, and 0.3% fluid loss additive (606 cu.ft., 35% 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 shoe joint.

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" x 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 liner top can then be pressure tested to ensure a seal between the liner top and the 7" casing has been achieved. The test pressure shall be the maximum anticipated pressure to which the seal will be exposed (700 psi for the Mesa Verde and 2500 psi for the Dakota). 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.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

# 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 Dakota and Mesa Verde formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.

Anticipated pore pressures are as follows:

Fruitland Coal 800 psi Pictured Cliffs 800 psi Mesa Verde 700 psi Dakota 2500 psi

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The west half is dedicated to the Mesa Verde and Dakota in this well.

This gas is dedicated.

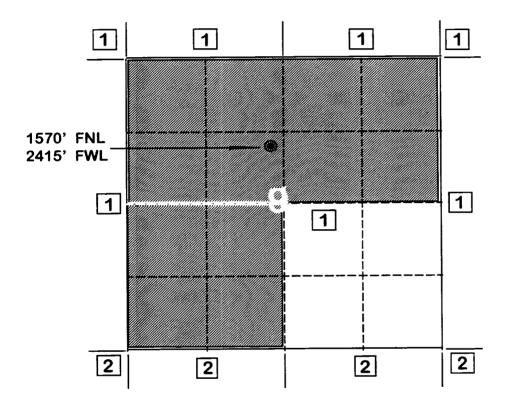
Drilling Engineer

1/14/97 Date

# BURLINGTON RESOURCES OIL AND GAS COMPANY

# San Juan 28-6 Unit #205M OFFSET OPERATOR \ OWNER PLAT Nonstandard Location Mesaverde (W/2)/Dakota (N/2) Formations Well

Township 27 North, Range 6 West



- 1) Burlington Resources Oil and Gas Company
- 2) Unocal Corp. 3300 N. Butler Avenue Farmington, NM 87401

Re:

San Juan 28-6 Unit #205M

1570'FNL, 2415'FWL Section 9, T-27-N, R-6-W, Rio Arriba County, New Mexico

API # 30-039-(not yet assigned)

racher

I hereby certify that the following offset operators/owners have been mailed notification of our application for non-standard location to drill the referenced well.

**Unocal Corporation** 

3300 North Butler Avenue

Farmington, NM 87401

Peggy Bradfield

Regulatory/Compliance Administrator

