

DATE IN 3/17/99	SUSPENSE 4/6/99	ENGINEER AS	LOGGED M	TYPE NSL
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**

- Engineering Bureau -

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

**Application Acronyms:**

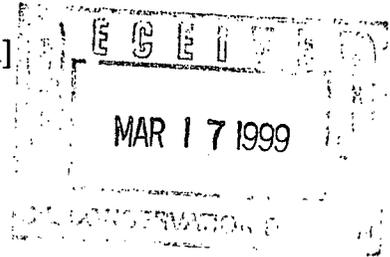
- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
- [DD-Directional Drilling] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [A] Location - Spacing Unit - Directional Drilling  
 NSL     NSP     DD     SD

Check One Only for [B] and [C]

- [B] Commingling - Storage - Measurement  
 DHC     CTB     PLC     PC     OLS     OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX     PMX     SWD     IPI     EOR     PPR



[2] **NOTIFICATION REQUIRED TO: - Check Those Which Apply, or  Does Not Apply**

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding**

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Peggy Bradfield

*Peggy Bradfield*

Regulatory/Compliance Administrator

Print or Type Name

Signature

Title

Date

# BURLINGTON RESOURCES

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SAN JUAN DIVISION

Sent Federal Express

Mr. Michael Stogner  
New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

Re: San Juan 27-4 Unit #39M  
2250'FNL, 910'FWL Section 5, T-27-N, R-4-W, Rio Arriba County  
30-039-not assigned

Dear Mr. Stogner:

Burlington Resources is applying for administrative approval of an unorthodox gas well location for the Dakota pool. This location is at the request of the Carson National Forest (see attached letter) and due to topography at a standard location. The Jicarilla Ranger Station of Carson National Forest states that both topography and minimizing surface disturbance are reasons for this location. This well is proposed to be drilled as a Mesa Verde-Dakota commingle. DHC-2226 has been issued for the commingling. Order R-10987A covers the location of the Mesa Verde portion of this well.

Production from the Dakota pool is to be included in a 319.59 acre gas spacing and proration unit for the west half (W/2) in Section 5. Production from the Dakota is to be dedicated to the San Juan 29-7 Unit #39 (30-039-20145) located at 846' FNL, 1693' FWL of Section 5. Production from the Mesa Verde pool is to be included in a 319.59 acre gas spacing and proration unit for the west half (W/2) in Section 5. Production from the Mesa Verde is to be dedicated to the San Juan 29-7 Unit #39 (30-039-20145) located at 846' FNL, 1693' FWL of Section 5.

The following attachments are for your review:

- Application for Permit to Drill.
- Completed C-102 at referenced location.
- Offset operators/owners plat - Burlington is the offsetting operator.
- Letter from Carson National Forest
- 7.5 minute topographic map.

We appreciate your earliest consideration of this application.

Sincerely,



Peggy Bradfield  
Regulatory/Compliance Administrator

xc: NMOCD - Aztec District Office  
Bureau of Land Management



District I  
 PO Box 1980, Hobbs NM 88241-1980  
 District II  
 PO Drawer KK, Artesia, NM 87211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

Form C-102  
 Revised February 21, 1994  
 Instructions on back  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

4 API Number 30-039-		3 Pool Code 71599/72319		2 Pool Name Basin Dakota/Blanco Mesaverde	
4 Property Code 7452		5 Property Name SAN JUAN 27-4 UNIT			6 Well Number # 39M
7 OGRID No. 14538		8 Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY			9 Elevation 6876

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
E	5	27 N	4 W		2250	NORTH	910	WEST	RIO ARRIBA

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

12 Dedicated Acres DK:W/319.59 MV:W/319.59	13 Joint or Infill	14 Consolidation Code	15 Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<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>Peggy Bradfield</i>        Signature        Peggy Bradfield        Printed Name        Regulatory Administrator        Title        10-25-98        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>August 11, 1998        Date of Survey        Signature and Seal of Professional Surveyor          7016        Certificate Number</p>

OPERATIONS PLAN

Well Name: San Juan 27-4 Unit #39M  
Location: 2250' FNL, 910' FWL, Sec 5, T-27-N, R-4-W  
Rio Arriba County, NM  
Latitude 36° 36' 10", Longitude 107° 16' 43"  
Formation: Blanco Mesa Verde/Basin Dakota  
Elevation: 6876' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3172'	
Ojo Alamo	3172'	3339'	aquifer
Kirtland	3339'	3397'	gas
Fruitland	3397'	3754'	gas
Pictured Cliffs	3754'	3865'	gas
Lewis	3865'	4333'	gas
<b>Intermediate TD</b>	<b>3965'</b>		
Mesa Verde	4333'	4729'	gas
Chacra	4729'	5540'	gas
Massive Cliff House	5540'	5583'	gas
Menefee	5583'	5912'	gas
Massive Point Lookout	5912'	6469'	gas
Mancos	6469'	7101'	gas
Gallup	7101'	7877'	gas
Greenhorn	7877'	7938'	gas
Graneros	7938'	8093'	gas
Dakota	8093'		gas
<b>TD (4 1/2" liner)</b>	<b>8208'</b>		

Logging Program:

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

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-9.0	40-50	no control
200-3965'	LSND	8.4-9.0	30-60	no control
3965-8208'	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):

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	K-55
8 3/4"	0' - 3965'	7"	20.0#	J-55
6 1/4"	3865' - 8208'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 8208'      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 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/366 sx Class "B" w/3% sodium metasilicate, 7# gilsonite/sx and 1/2# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% calcium chloride (1192 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.

7" intermediate casing alternative two stage: Stage collar at 1983'. First stage: cement with 161 sx Class "B" cmt with 7 pps gilsonite, 1/2 pps cellophane, 3% sodium metasilicate. Tailed w/90 sx Class "B" 50/50 poz w/2% gel, 2% calcium chloride, 0.5 pps Cellophane. Second stage: 205 sx Class "B" with 3% sodium metasilicate, 1/2 pps Cellophane, 7 pps Gilsonite (1192 cu.ft., 100% 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 3339'. Two turbolating centralizers at the base of the Ojo Alamo at 3339'. 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 50# sx 50/50 Class "B" Poz with 2% gel, 0.25 flocele/sx, 5# gilsonite/sx, and 0.3% fluid loss additive (668 cu.ft.), 50% 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 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):

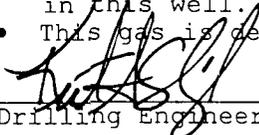
The following equipment will be operational while gas/mist drilling:

- 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 of Section 5 is dedicated to the Mesa Verde and Dakota in this well.
- This gas is dedicated.

  
\_\_\_\_\_  
Drilling Engineer

10/26/98  
\_\_\_\_\_  
Date

# *BURLINGTON RESOURCES*

San Juan 27-4 Unit #39M  
Multi-Point Surface Use Plan

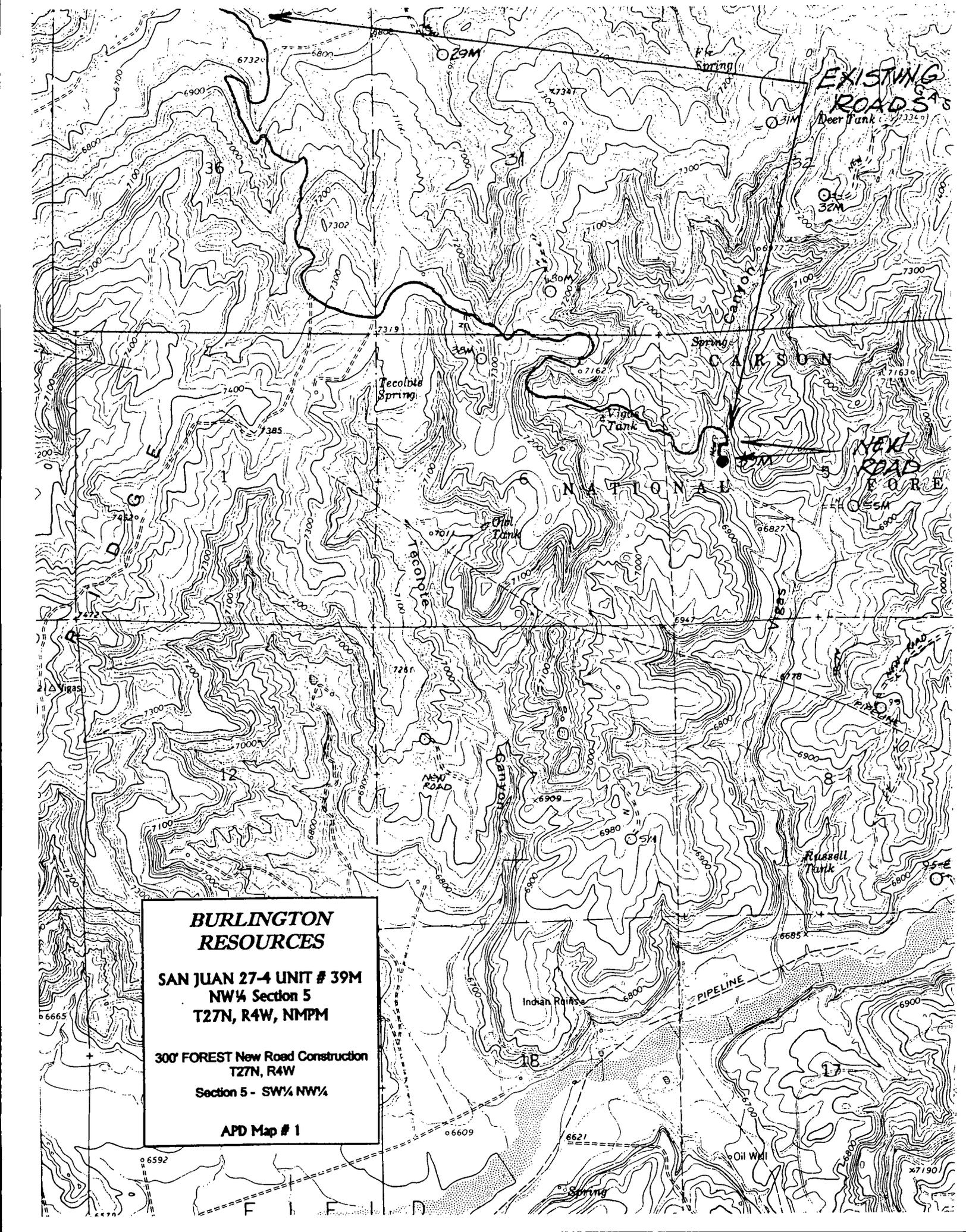
1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. The required new access road is shown on Map No. 1. The gradient, shoulder, crowning and other design elements will meet or exceed those specified by the responsible government agency. The new access road surface will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. Approximately 300' of access road will be constructed. Pipelines are indicated on Map No. 1A.
3. Location of Existing Wells - Refer to Map No. 1A.
4. Location of Existing and/or Proposed Facilities if Well is Productive -
  - a. On the Well Pad - Refer to Plat No. 1, anticipated production facilities plat.
  - b. Off the Well Pad - Anticipated pipeline facilities as shown on the attached plat from Williams Field Services.
5. Location and Type of Water Supply - Water will be hauled by truck for the proposed project and will be obtained from 44 Crossing Water Hole located NE Section 18, T-27-N, R-4-W, New Mexico.
6. Source of Construction Materials - If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.
7. Methods of Handling Waste Materials - All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. Reserve pits will be lined as needed with either 12 mil bio-degradable plastic liner or a bentonite liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.
8. Ancillary Facilities - None anticipated.
9. Wellsite Layout - Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.

10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeded operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeded operations will be performed during the time period set forth by the responsible government agency. The permanent location facilities will be painted as designated by the responsible government agency.
11. Surface Ownership – Carson National Forest
12. Other Information - Environmental stipulations as outlined by the responsible government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
13. Operator's Representative and Certification - Burlington Resources Oil & Gas Company Regional Drilling Manager, Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan, are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Burlington Resources Oil and Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

  
Regulatory/Compliance Administrator

10-25-98  
Date

**BURLINGTON  
RESOURCES**  
**SAN JUAN 27-4 UNIT # 39M**  
**NW¼ Section 5**  
**T27N, R4W, NMPM**  
**300' FOREST New Road Construction**  
**T27N, R4W**  
**Section 5 - SW¼ NW¼**  
**APD Map # 1**



**BURLINGTON RESOURCES OIL AND GAS COMPANY**

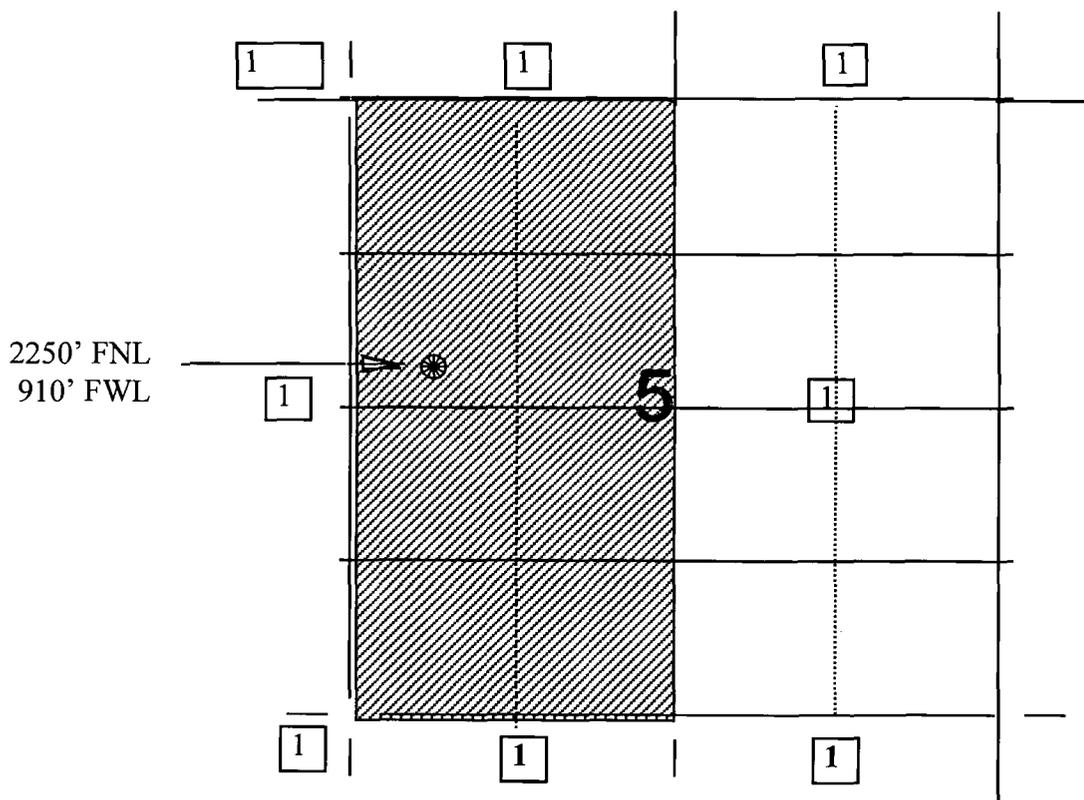
**San Juan 27-4 Unit #39M**

**OFFSET OPERATOR/OWNER PLAT**

**Mesaverde/Dakota Formations**

**Down-hole Commingle**

**Township 27 North, Range 4 West**



**1) Burlington Resources**



United States  
Department of  
Agriculture

Forest Service  
Jicarilla  
Ranger District

664 East Broadway  
Bloomfield, NM 87413  
(505) 632-2956  
Fax: (505) 632-3173

File Code: 2820

Date: 8/31/98

Chuck Smith  
Burlington Resources  
POB 4289  
Farmington, NM 87499

RE: Unorthodox location for wells: San Juan 27-4 #39M  
San Juan 27-4 #46M  
San Juan 27-4 #52M  
Carson SRC #2A

Dear Mr. Smith,

The Jicarilla Ranger District, Carson National Forest is requesting you apply for an unorthodox location as follows, as discussed by your company representative and Camela Hooley of this office:

SJ 27-4 #39M, T27N R4W Sec.5, 2250'FNL/910'FWL  
SJ 27-4 #46M, T27N R4W Sec.31, 1875'FN:/405'FWL  
SJ 27-4 #52M, T27n R4W Sec.29, 1040'FNL/1370'FWL  
Carson SRC #2A, T30N R5W Sec.1, 1850'FSL/1270'FEL

The mineral operator is required to comply with other other applicable regulations such as the Endangered Species Act and the Archeological Resources Protection Act under 36CFR228.112(c). The operator is also required under 36CFR228.108(c) to minimize or prevent damage to surface resources. The Carson National Forest Management Plan states that surface resource impacts will be minimized when administering mineral resources.

The following conditions apply which require an unorthodox location:

52M Archeological resources prevent locating the well in an orthodox location.

2A,

39M,46M Topography prevents locating the well in an orthodox location.

46M Threatened/endangered species concerns prevent locating the well in an orthodox location.

52M,

39M,46M Prevention of unnecessary resource damage requires the location be unorthodox. (Such as a previously disturbed area or existing road available outside the drilling window.)

Thank you for your cooperation in this matter.

Don Case  
Acting District Ranger



Caring for the Land and Serving People

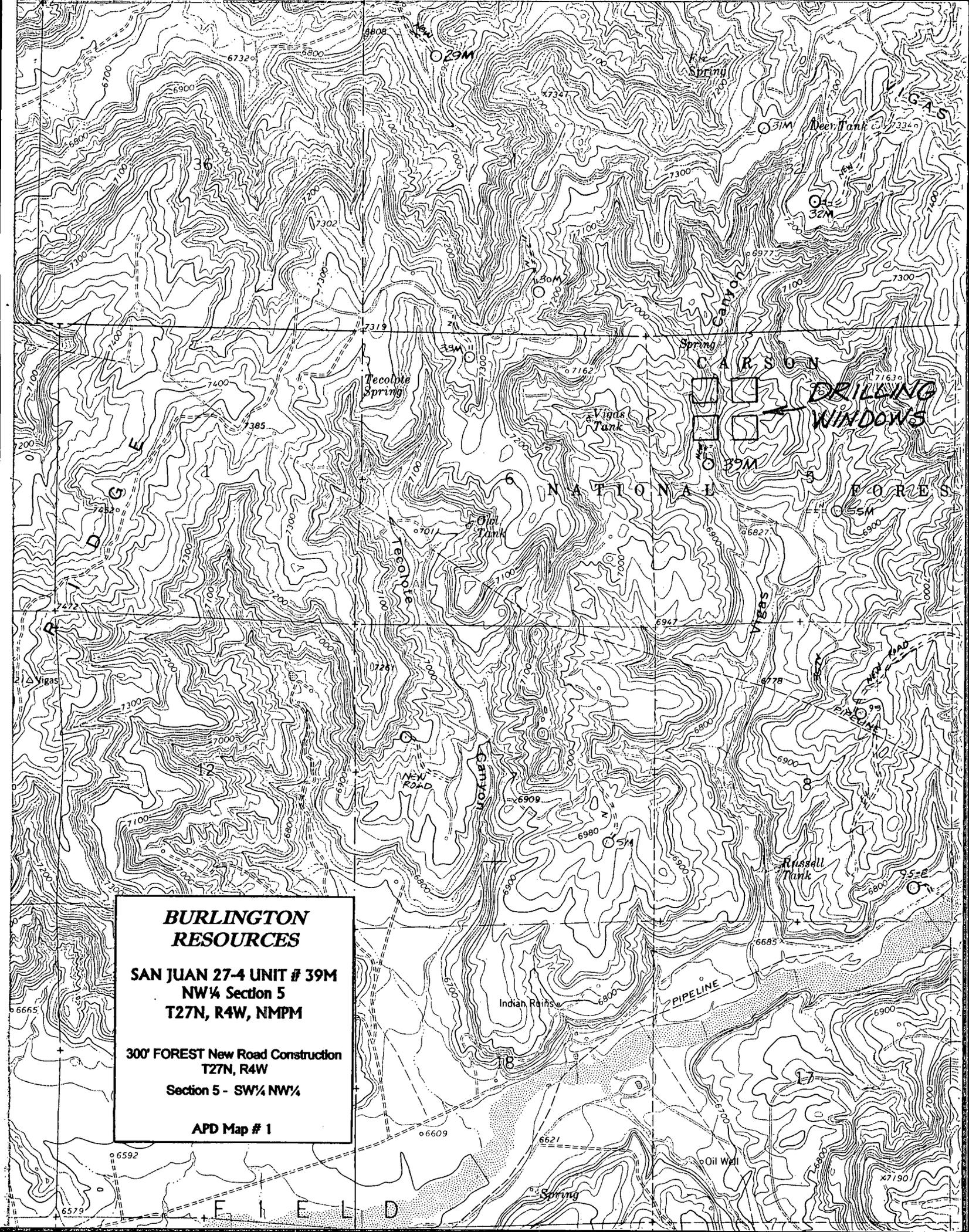
FS-6200-28b(3/92)

**BURLINGTON  
RESOURCES**

**SAN JUAN 27-4 UNIT # 39M  
NW¼ Section 5  
T27N, R4W, NMPM**

**300' FOREST New Road Construction  
T27N, R4W  
Section 5 - SW¼ NW¼**

**APD Map # 1**



CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

03/18/99 07:47:03  
OGOMES -TPGF  
PAGE NO: 1

Sec : 05 Twp : 27N Rng : 04W Section Type : NORMAL

4 39.83  Federal owned	3 39.76  Federal owned	2 39.70  Federal owned	1 39.63  Federal owned  A
E 40.00  Federal owned	F 40.00  Federal owned	G 40.00  Federal owned  A	H 40.00  Federal owned

PF01 HELP    PF02            PF03 EXIT    PF04 GoTo    PF05            PF06  
PF07 BKWD   PF08 FWD      PF09 PRINT   PF10 SDIV     PF11            PF12

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 1 \\
 79.83 \\
 79.76 \\
 \hline
 159.59 \\
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 16 \\
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 319.59
 \end{array}$$

DKNFL08

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

03/18/99 07:47:27  
OGOMES -TPGF  
PAGE NO: 2

Sec : 05 Twp : 27N Rng : 04W Section Type : NORMAL

L 40.00  Federal owned	K 40.00  Federal owned  A A	J 40.00  Federal owned  A	I 40.00  Federal owned
M 40.00  Federal owned	N 40.00  Federal owned  A	O 40.00  Federal owned	P 40.00  Federal owned

PF01 HELP    PF02            PF03 EXIT    PF04 GoTo    PF05            PF06  
PF07 BKWD   PF08 FWD      PF09 PRINT   PF10 SDIV     PF11            PF12

CMD : ONGARD 03/18/99 07:48:12  
OG6IWCM INQUIRE WELL COMPLETIONS OGOMES -TPGE

API Well No : 30 39 20145 Eff Date : 10-07-1968 WC Status : A  
Pool Idn : 71599 BASIN DAKOTA (PRORATED GAS)  
OGRID Idn : 14538 BURLINGTON RESOURCES OIL & GAS CO  
Prop Idn : 7452 SAN JUAN 27 4 UNIT

Well No : 039  
GL Elevation: 6815

	U/L	Sec	Township	Range	North/South	East/West	Prop/Act (P/A)
B.H. Locn	:	N	5	27N	04W	FTG 846 F S FTG 1693 F W	P

Lot Identifier:

Dedicated Acre: 320.00

Lease Type : F

Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

M0025: Enter PF keys to scroll

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07	PF08	PF09	PF10 NEXT-WC	PF11 HISTORY	PF12 NXTREC