NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

QL CONSERVATION DIVISION 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

July 13, 1998

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

Administrative Order NSL-4091

Dear Ms. Bradfield:

Reference is made to your application dated June 22, 1998 for an exception to the well location requirements provided within the "Special Rules and Regulations for the Basin-Dakota Pool," as promulgated by Division Order No. R-10987, for a non-standard Basin-Dakota infill gas well location in an existing non-standard 320-acre gas spacing and proration unit for the Basin-Dakota Pool (approved by Division Order No. R-9236, issued in Case No. 9976 dated July 20, 1990) comprising the SE/4 SE/4 of Section 23 and the NE/4 NW/4, S/2 NW/4, and SW/4 of Section 24, both in Township 31 North, Range 12 West, NMPM, San Juan County, New Mexico. This unit is currently dedicated to Burlington Resources Oil & Gas Company's East Well No. 5 (API No. 30-045-10475), located a standard gas well location 990 feet from the South line and 1650 feet from the West line (Unit N) of Section 24.

The application has been duly filed under the provisions of Rules 104.F and 605.B of the Rules and Regulations of the New Mexico Oil Conservation Division ("Division").

By the authority granted me under the provisions of Division Rule 104.F(2), the following described well to be drilled at an unorthodox infill gas well location in Section 24 is hereby approved:

East Well No. 5-E 1615' FNL & 875' FWL (Unit E)

Further, both of the aforementioned East Well Nos. 5 and 5-E and existing non-standard gas spacing and proration unit will be subject to all existing rules, regulations, policies, and procedures applicable to prorated gas pools in Northwest, New Mexico.

Sincerely,

Lori Wrotenbery

Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Aztec

U. S. Bureau of Land Management - Farmington

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BURLINGTON RESOURCES

SAN JUAN DIVISION

June 22, 1998

Sent Federal Express

Ms. Lori Wrotenbery, Director New Mexico Oil Conservation Division 2040 South Pacheco Santa Fe. New Mexico 87505

Re:

East #5E

1615'FNL, 875'FWL Section 24, T-31-N, R-12-W, San Juan County, NM

30-045-not assigned

Dear Ms. Wrotenbery:

Burlington Resources is applying for administrative approval of an unorthodox gas well location for the Basin Dakota pool. This application for the referenced location is due to the presence of existing pipelines and the special lease boundaries.

Production from the Basin Dakota is to be included in a 320 acre gas spacing and proration unit comprising of the NE/4 NE/4, S/2, NE/4, SE/4 of Section 24 and the SE/4 SE/4 of Section 23 which is dedicated to the East #5 (30-045-10475) located at 990' FSL, 1650' FWL of Section 24. Attached is a copy of R-9236 establishing this non-standard proration unit for the East #5.

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, and enlargement of the map to define topographic features.

A copy of this application is being submitted to all offset owners/ operators by certified mail with a request that they furnish you with a Waiver of Objection, and return one copy to this office.

We appreciate your earliest consideration of this application.

Sincerely,

Peggy Bradfield

Regulatory/Compliance Administrator

XC:

NMOCD - Aztec District Office

Bureau of Land Management - Farmington District Office

Amoco Production

WAIVER

Amoco	Production I	hereby	waives	objection	to	Burlington	Resources'	application	for	а	non-
standar	d location fo	r East #	#5E as p	roposed a	bo	ve.					
Rv.				Doto							

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	APPLICATION	FOR PERMIT TO DRILL, DEE	EPEN, OR PLUG BACK	
1a.	Type of Work DRILL		5. Lease Number SF-077652 Unit Reporting Number	
1b.	Type of Well GAS	JSH 2 2 4	6. If Indian, All. or Tribe	
2.	Operator BURLINGTON RESOURCES	⑥ [] Dil & Gas Com pany	7. Unit Agreement Name	
3.	Address & Phone No. of Opera PO Box 4289, Farmin		8. Farm or Lease Name East	
	(505) 326-9700	J ,	9. Well Number 5E	
4.	Location of Well 1615'FNL, 875'FWL		10. Field, Pool, Wildcat Basin Dakota	•
	Latitude 36 ^o 53.2, Lo	ngitude 108 ⁰ 03.3	11. Sec., Twn, Rge, Mer. (NMP Sec 24, T-31-N, R- API # 30-045-	
14.	Distance in Miles from Nearest 5 miles to Azte		12. County 13. So SJ NM	tate
15.	Distance from Proposed Locat 875'	ion to Nearest Property or Lease	Line	
16.	Acres in Lease		17. Acres Assigned to Well 320	
18.	Distance from Proposed Locat	ion to Nearest Well, Drlg, Compl	l, or Applied for on this Lease	
19.	Proposed Depth 7315'		20. Rotary or Cable Tools Rotary	
21.	Elevations (DF, FT, GR, Etc.) 6150'GR		22. Approx. Date Work will St	art
23.	Proposed Casing and Cementi See Operations Plan	ng Program attached		
24.	Authorized by: Regulator	Shalfuld Ty/Compliance Administra	<i>S-30-98</i> ator Date	
PERM	IT NO	APPROVA	L DATE	_
APPR	OVED BY	TITLE	DATE	_

Archaeological Report submitted - Technical Report #1248 - Arboles

Threatened and Endangered Species Report to be submitted

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.

` District I PO Box 1980. Hobbs. NM 88241-1980

District II PD Dhawen DD, Antesia, NM 88211-0719

District III 1000 Rão Brazos Ad., Aztec, NM 87410

District IV

State of New Mexico

Instructions on ba Submit to Appropriate District Off: CIL CONSERVATION DIVISION: State Lease - 4 Cob: PO Eox 2088

Santa For NMA 27504 COST Santa Fe, NM 87504-2088

Form C-1 State of New Mexico

Energy, Minerals & Natural Resources Gepantment

Revised February 21, 19

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AMENDED REPOF

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OPERATIONS PLAN

Well Name: East #5E

Location: 1615'FNL, 875'FWL Sec 24, T-31-N, R-12-W

San Juan County, NM

Latitude 36° 53.2, Longitude 108° 03.3

Formation: Basin Dakota
Elevation: 6150'GL

Formation Tops:	Top	Bottom	<u>Contents</u>
Surface	San Jose	9 88'	
Ojo Alamo	988'	1094'	aquifer
Kirtland	1094'	2035'	gas
Fruitland	2035′	2660	
Pictured Cliffs	2660'	2809'	gas
Lewis	2809'	3365'	gas
Huerfanito Bentonite	3 365′	3737′	gas
Chacra	37 37 ′	4288'	
Massive Cliff House	4288'	4425'	gas
Menefee	4425'	4961'	gas
Massive Point Lookout	4961'	5359'	gas
Mancos Shale	53 5 9′	6265'	
Gallup	6265′	6990′	gas
Greenhorn	6990'	7040'	gas
Dakota	7040′		gas
TD	7315'		

Logging Program:

Mud Logs/Coring/DST -

Mud logs - 5300' to TD.

Coring - none
DST - none

Electric logs - DIL/SP/GR; Density/Neut/GR; Microlog-GR;

Mud Program:

<u>Interval</u>	Type	<u>Weight</u>	<u>Vis.</u>	Fluid Loss
0- 320'	Spud	8.4-8.9	40-50	no control
320-7315'	LSND	8.4-9.0	40-60	no control

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

Casing Program:

<u> Hole Size</u>	Depth Interval	Csq.Size	Wt.	<u>Grade</u>
12 1/4"	0' - 320'	8 5/8"	23.0#	M-50
7 7/8"	0' - 7315'	4 1/2"	10.5#	J-55

Tubing Program:

0' - 7315' 2 3/8" 4.7# J-55 EUE

BOP Specifications, Wellhead and Tests:

Surface to 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.

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

6" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams and casing top will be tested to 3000 psi for 15 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Wellhead -

8 5/8" x 4 1/2" 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.
- A BOP pit level drill will be conducted weekly for each drilling crew.
- All of the BOP tests and drills will be recorded in the daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

8 5/8" surface casing -

Cement to surface w/345 sx Class "B" cement w/2% calcium chloride and 1/4#/sx cellophane flakes (396 cu.ft. of slurry, 100% excess to circulate to surface.) WOC 8 hr prior to drilling out surface casing. 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.

Production Casing - 4 1/2"

Lead cement to surface with 1102 sx Class "B" with 3% sodium metasilicate, 1/4 pps flocele, 10 pps gilsonite. Tail with 120 sx 50/50 Class "B" Poz with 2% gel, 1/2 pps cellophane, 10 pps gilsonite (3333 cu.ft., 100% excess).

Or, the alternative two-stage cement job as follows:

First Stage: Cement to circulate to stage tool @ 4100'. Lead with 462 sx Class "B" with 3% sodium metasilicate, 0.5 pps cellophane, and 10 pps gilsonite. Tail w/100 sx 50/50 Class "B" Poz with 2% gel, 1/2 pps cellophane and 10 pps gilsonite. WOC 4 hours prior to pumping second stage. (Slurry volume: 1465 cu.ft. Excess slurry 100%.)

Second Stage: Cement to circulate to surface. Cement with 649 sx Class "B" with 3% sodium metasilicate, 1/2 pps cellophane, 10 pps gilsonite. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 1868 cu.ft. Excess slurry: 100%.)

Float shoe on bottom. Three centralizers run every other joint above shoe. Thirty-three centralizers - one every 4th joint to the base of the Ojo Alamo @ 1752'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1752'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Additional Information:

- The Dakota formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The west half of the Section is dedicated to this well.
- This gas is dedicated.
- New casing will be utilized.
- Anticipated pore pressure

Fruitland Coal 500 psi
Pictured Cliffs 300 psi
Mesa Verde 700 psi
Dakota 2000 psi

• Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

Drilling Engin**se**r

Date



East #5E 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. None required.
- 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 Service.
- 5. Location and Type of Water Supply Water will be hauled by truck for the proposed project and will be obtained from City of Aztec, SE/4 Section 5, T-31-N, R-10-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.

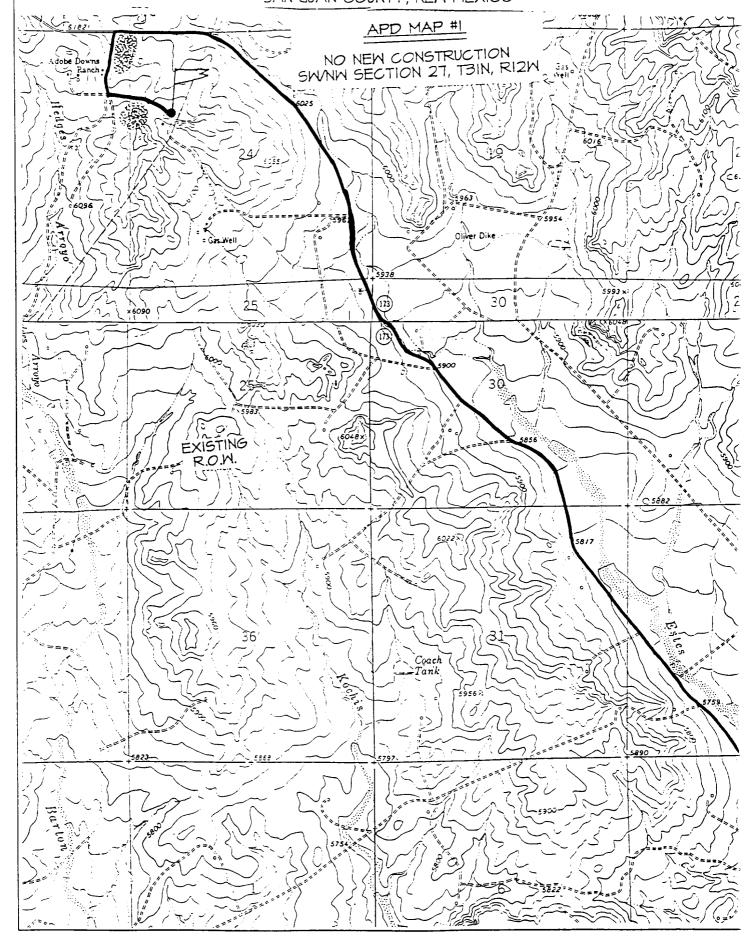
- 10. Plans for Restoration of the Surface After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding 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 Eugene Harper
- 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.

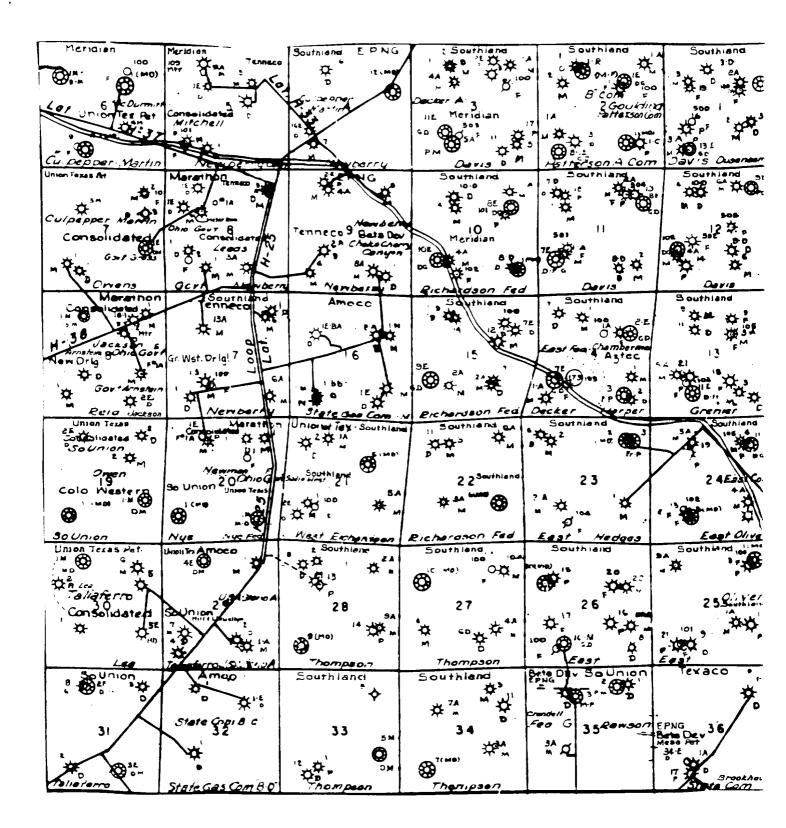
Regulatory/Compliance Administrator Date

1

BURLINGTON RESOURCES OIL & GAS COMPANY EAST #5E

1615' FNL & 875' FWL, SECTION 24, T3IN, RI2W, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO





MERIDIAN OIL INC.
Pipeline Map
T-31-N, R-12-W
San Juan County, New Mexico
East #5E
Map 1A

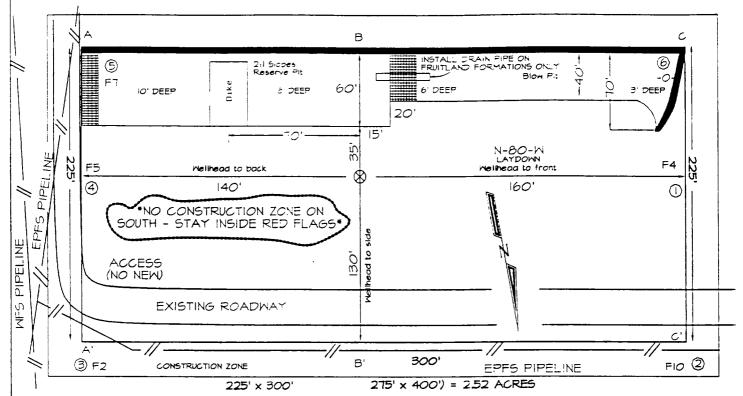
PLAT #1

BURLINGTON RESOURCES OIL & GAS COMPANY

EAST #5E, 1615' FNL & 875' FWL

SECTION 24, T31N, R12W, NMPM, SAN JUAN COUNTY, NEW MEXICO

GROUND ELEVATION: 6150' DATE: MARCH 14, 1998



Reserve Pit Dike: to be 8' above Deep 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 pi

A-A'	
6160'	
6150'	
6140'	/s V//
В-В'	
6160'	
6150'	
6140'	
C-C	
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Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cab on well pad and/or access road at least two (2) working days prior to construction

BURLINGTON RESOURCES OIL AND GAS COMPANY

East #5E

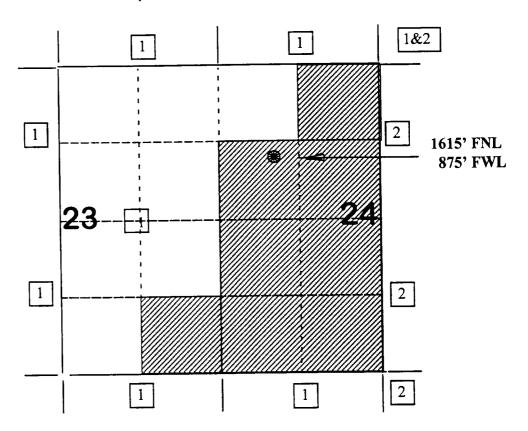
OFFSET OPERATOR/OWNER PLAT

Nonstandard Location

(Nonstandard Dedication NE/4 NE/4, S/2, NE/4, SE/4 Section 24 and SE/4 SE/4 Section 23)

Dakota Formation Well

Township 31 North, Range 12 West



- 1) Burlington Resources
- 2) Amoco Production Company

Attn: Steve Trefz P.O. Box 800 1670 Broadway Denver, CO 80201

Re: East #5E

1615'FNL, 875'FWL Section 24, T-31-N, R-12-W, San Juan County, NM

30-045-not assigned

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.

Amoco Production Att: Steve Trefz PO Box 800

Denver, CO 80201

Peggy Bradfield

Regulatory/Compliance Administrator

eggy Stadfield 6-22-98

STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 9976 Order No. R-9236

APPLICATION OF SOUTHLAND ROYALTY COMPANY FOR TWO NON-STANDARD GAS PRORATION UNITS, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 27, 1996, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 20th day of July, 1990, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereot.
- (2) The applicant, Southland Royalty Company, seeks approval for two 320-acre non-standard gas proration units for Basin-Fruitland Coal Gas Peci production in portions of Sections 23 and 24, Township 31 North, Range 12 West, NMPM, San Juan County, New Mexico, described as follows:

CASE NO. 9976 Order No. R-9236 Page -2-

TOWNSHIP 31 NORTH, RANGE 12 WEST, NMP.M.

TRACT	ACREAGE	DESCRIPTION
1	320	Section 23: W/2 E/2, E/2 NE/4, and NE/4 SE/4
		Section 24: NW/4 NW/4
2	320	Section 23: SE/4 SE/4 Section 24: E/2 W/2, W/2 SW/4, and SW/4 NW/4

- (3) The applicant currently operates all of the acreage contained within each of the proposed non-standard gas proration units and proposes to either drill or recomplete a well to the Basin-Fruitland Coal Gas Pool in each of said proposed non-standard gas proration units.
- (4) According to evidence and testimony presented by the applicant, each of the proposed non-standard gas proration units has previously been approved by the Division for use in developing gas reserves in the Blanca-Mesaverde and Basin-Dakota Pools, said approval granted by Division Order Nos. NWU-37, NWU-411, R-230 and R-1902.
- (5) The evidence and testimony further indicates that each of the subject non-standard gas proration units consists of a single lease and was initially formed so as to conform to the boundaries of each respective lease.
- (6) The applicant seeks to establish said non-standard gas proration units in the Basin-Fruitland Coal Gas Pool in order to maintain common ownership within the various producing formations underlying each respective proration unit.
- (7) No offset operator and/or interest owner appeared at the hearing in opposition to the application.

(8) Approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the Basin-Fruitland Coal Gas Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and will better enable the applicant to protect the correlative rights of the interest owners underlying the proposed proration units.

IT IS THEREFORE ORDERED THAT:

(1) The following described non-standard gas spacing and proration units in the Basin-Fruitland Coal Gas Pool, San Juan County, New Mexico, are hereby established:

	TOWNSHIP 31 NORTH, RANGE 12 WEST, NMFM				
TRACT	ACREAGE	DESCRIPTION			
1	320	Section 23:	W/2 E/2, E/2 NE/4, and NE/4 SE/4		
		Section 24:	NW/4 NW/4		
2	320	Section 23:	SE/4 SE/4		
		Section 24:	E/2 W/2, W/2 SW/4, and SW/4 NW/4		

(2) Jurisdiction of this cause is retained for the entry of such farmer orders as the Division may deem necessary.

CASE NO. 9976 Order No. R-9236 Page -4-

DONE at Santa Fe. New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY

Director

S E A L