

State of New Mexico

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

2040 Poehoon St.

Santa Fe, NM 87505 - 5472

1220 S. St. Francis Dr.

TF-03-008

FOR DIVISION USE ONLY:

APPLICATION FOR WELLHEAD PRICE CEILING CATEGORY DETERMINATION

APPROPRIATE FILING FEE(S) ENCLOSED? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		<p><b>- FILING FEE(S) -</b> Effective October 1, 1986, a non-refundable filing fee of \$25.00 per category for each application is mandatory. (Rule 2, Order No. R-5878-8-3)</p>	5A. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
DATE COMPLETE APPLICATION FILED <u>March 10, 2003</u>			5. State Oil & Gas Lease No.
DATE DETERMINATION MADE <u>April 28, 2003</u>			7. Unit Agreement Name
WAS APPLICATION CONTESTED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			8. Farm or Lease Name <b>Schneider Gas Com C</b>
NAME(S) OF INTERVENORS(S), IF ANY: <u>na</u>		9. Well No. <u>1</u>	10. Field and Pool, or Wildcat <b>Basin Dakota</b>
2. Name of Operator <b>BP America Production Company</b>		12. County <b>San Juan</b>	
3. Address of Operator <b>P.O. Box 3092 Houston, TX 77253</b>			
4. Location of Well UNIT LETTER <u>M</u> LOCATED <u>790</u> FEET FROM THE <u>South</u> LINE AND <u>1190</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>28</u> TWS. <u>32N</u> RGE. <u>10W</u> NMPM			
11. Name and Address of Purchaser(s) <b>El Paso Field Services</b>			

Check appropriate box for category sought and information submitted. Enter required information on lines 1 and 2, below.

1. Category(ies) sought (By NGPA Section No.)
2. Filing Fee(s) Amount Enclosed: \$ 25.00 *API No. 30-045-25883*
3. All applications must contain:
  - a. C-101 APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK
  - b. C-105 WELL COMPLETION OR RECOMPLETION REPORT
  - c. DIRECTIONAL DRILLING SURVEY, IF REQUIRED UNDER RULE 111
  - d. AFFIDAVITS OF MAILING OR DELIVERY
4. In addition to the above, all applications must contain the items required by the applicable rule of the Division's "Special Reules of Applications for Wellhead Price Ceiling Category Determinations" as follows:

- A. NEW NATURAL GAS UNDER SEC. 102 (c) (1) (B) (using 2.5 Mile or 1000 Feet Deeper Test)
  All items required by Rule 14 (1) and/or Rule 14 (2)
- B. NEW NATURAL GAS UNDER SEC. 102 (c) (1) (C) (new onshore reservoir)
  All items required by Rule 15
- C. NEW ONSHORE PRODUCTION WELL UNDER SEC. 103
  All items required by Rule 16a OR Rule 16B
- D. SEC. 107 HIGH COST NATURAL GAS (TIGHT FORMATION, DEEP, COAL SEAM, AND PRODUCTION ENHANCEMENT) UNDER SEC. 103
  All items required by Rule 17 (1), Rule 17 (2), Rule 17 (4), or Rule 17 (5)
- E. STRIPPER WELL NATURAL GAS UNDER SEC. 108
  All items required by Rule 18

I, HEREBY CERTIFY THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

**Mary Corley**

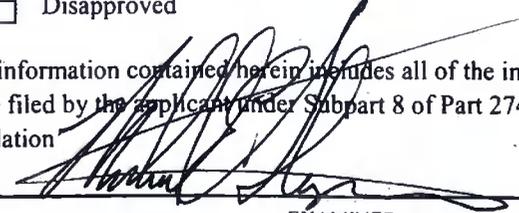
NAME OF APPLICANT (TYPE OR PRINT)

*Mary Corley*

SIGNATURE OF APPLICANT

Title Senior Regulatory Analyst

Date February 17, 2003

FOR DIVISION USE ONLY	
<input checked="" type="checkbox"/> Approved	
<input type="checkbox"/> Disapproved	
The information contained herein includes all of the information required to be filed by the applicant under Subpart 8 of Part 274 of the FERC regulation	
 EXAMINER	

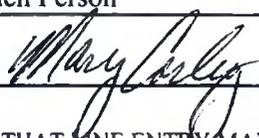
**A. THE NGPA WELL CATEGORY DETERMINATION IS BEING SOUGHT FOR A WELL PRODUCING:**

- A1  occluded natural gas from coal seams.
- A2  natural gas from Devonian shale.
- A3  natural gas from a designated tight formation.

**B. FOR ALL APPLICATIONS FOR DETERMINATION PROVIDE THE FOLLOWING:**

- 1. Well Name and No.\* **Schneider Gas Com # 1**
- 2. Completed in (Name of Reservoir) \* **Dakota**
- 3. Field \* **Basin Dakota**
- 4. County \* **San Juan**
- 5. State \* **New Mexico**
- 6. API Well No. (14 digits maximum. If not assigned, leave blank.) **30-045-25883**
- 9. Measured Depth of the Completed Interval (in feet)  
TOP **7394'** BASE **7560'**

**C. APPLICANT'S MAILING ADDRESS AND THE IDENTITY OF THE PERSON WHO IS RESPONSIBLE FOR APPLICATION:**

- 1. Applicant's Name \* **BP America Production Company**
- 2. Street \* **501 Westlake Park BLVD**
- 3. City \* **Houston**
- 4. State\* **Texas** 5. Zip Code **77079**
- 6. Name of Person Responsible \* **Mary Corley**
- 7. Title of Such Person \* **Senior Regulatory Analyst**
- 8. Signature  and Phone No. ( **281** ) **366 - 4491**

\* SIGNIFIES THAT LINE ENTRY MAY CONTAIN UP TO 35 LETTERS AND/OR NUMBERS.

APPLICATION FOR WELL CATEGORY DETERMINATION  
PUSUANT TO SECTION 270 OF  
THE FEDERAL ENERGY REGULATORY COMMISSION 'S  
REGULATIONS IMPLEMENTING  
THE NATURAL GAS POLICY ACT OF 1978 (NGPA)

AFFIDAVIT  
TIGHT FORMATION GAS

STATE OF TEXAS  
COUNTY OF HARRIS

BEFORE ME, the undersigned authority, duly commissioned and qualified within and for the State and County aforesaid, personally came and appeared Mary Corley, who being by me first duly sworn, deposed and said:

That she is the Senior Regulatory Analyst for BP America Production Company, the applicant for the well hereinafter described, and that capacity, she is requesting the appropriate Authorized Officer to make a determine that this well is producing from a tight formation pursuant to the rules and regulations of the Bureau of Land Management and the Federal Energy Regulatory Commission (FERC), as such rules relate to NGPA.

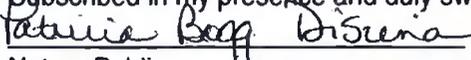
That production from the Schneider Gas Com C well # 1, API No. 30-045-25883 is natural gas produced from a FERC designated tight formation, assigned State No. NM - 09 through:

- a well the surface drilling of which began after December 31, 1979, but before January 1, 1993;
- a recompletion commenced after January 1, 1993, the surface drilling of which began after December 31, 1979, but before January 1, 1993; or
- a recompletion commenced after December 31, 1979 but before January 1, 1993, where such gas could not have been produced from any completion location in existence in the well bore before January 1, 1980; and

Said applicant has no knowledge of any information not described in the application that is inconsistent with her conclusion.

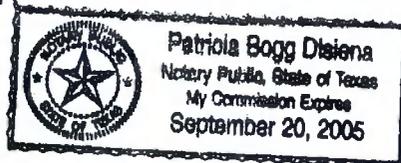
  
\_\_\_\_\_  
Mary Corley  
Senior Regulatory Analyst

Subscribed in my presence and duly sworn to before me, this 17 day of February, 2003.

  
\_\_\_\_\_  
Notary Public

My Commission Expires:

BLM Affidavit





San Juan Performance Unit

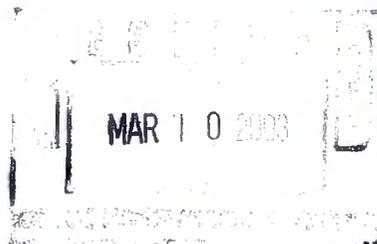
Mary Corley  
WL1-19.171  
281-366-4491 (direct)  
281-366-0700 (FAX)  
[corleym1@bp.com](mailto:corleym1@bp.com)

P. O. Box 3092  
Houston, Texas 77253-3092  
501 Westlake Park Boulevard  
Houston, Texas 77079

February 17, 2003

State of New Mexico  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Application For Well Category Determination  
NGPA Section 107 - Dakota  
Schneider Gas Com C Well No. 1  
San Juan County, New Mexico**



*API No. 30-045-25883*

BP America Production Company is enclosing, for review and approval by the Oil Conservation Division, the original and one copy of an Application for Well Category Determination for the referenced well. Please hold the information in the filing confidential to the maximum extent allowed by law.

A copy of this letter and the FERC Form 121 has been mailed to each working interest owner entitled to receive Notice of this Application.

Please indicate receipt of this filing by date stamping the attached copy of this letter and returning the copy for our records.

Very truly yours,

A handwritten signature in cursive script that reads "Mary Corley".  
Mary Corley  
Sr. Regulatory Analyst

Enclosures

Cc: Working Interest Owners

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
J.S.G.S.	
LAND OFFICE	
OPERATOR	

FARMINGTON DISTRICT  
**JUL 23 1984**  
 DS  
 DAS  
 NEW MEXICO OIL CONSERVATION COMMISSION  
 WELL COMPLETION OR RECOMPLETION REPORT AND LOG  
 1925 BS

Form C-105  
 Revised 11-78

NEW MEXICO OIL CONSERVATION COMMISSION  
 WELL COMPLETION OR RECOMPLETION REPORT AND LOG

3a. Indicate Type of Lease  
 State  Fee   
 5. State Oil & Gas Lease No.

4. TYPE OF WELL

6. TYPE OF COMPLETION

OIL WELL  GAS WELL  DRY  OTHER   
 NEW WELL  WORK OVER  DEEPEN   
 PLUG BACK  DIFF. RESVR.  OTHER

RECEIVED

7. Unit Agreement Name

8. Firm or Lease Name  
 Schneider Gas Com "C"

9. Well No.  
 1

Name of Operator

Amoco Production Co.

Address of Operator

501 Airport Drive, Farmington, N M 87401

Location of Well

10. Field and Pool, or Wildcat  
 Basin Dakota

11. LETTER M LOCATED 790 FEET FROM THE South LINE AND 1190 FEET FROM

West LINE OF SEC. 28 TWP. 32N RGE. 10W

12. County  
 San Juan

13. Date Spudded 4-2-84	16. Date T.D. Reached 5-8-84	17. Date Compl. (Ready to Prod.) 5-31-84	18. Elevations (DF, RKB, RT, GR, etc.) 6071' KB	19. Elev. Casinghead 6058' GR
----------------------------	---------------------------------	---	--	----------------------------------

20. Total Depth 7630'	21. Plug Back T.D. 7528'	22. If Multiple Compl., How Many Single	23. Intervals Drilled By Rotary Tools 0-TD	Cable Tools
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Producing Interval(s), of this completion - Top, Bottom, Name

7305' - 7560'

25. Was Directional Survey Made  
 Yes

Type Electric and Other Logs Run

CEL-GR-FDC-SNP-GR Caliper

27. Was Well Cored  
 No

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
1-3/4"	42#, H-40	345'	14-3/4"	420 cu. ft. Class B w/12% CacI2	
8-5/8"	24 & 28#, 5-80	3271'	10-3/4"	847 cu. ft. Class B 50:50 in w/118 cu. ft. Class B Neat	poz & tailed
1-1/2"	11.6#, N-80	7571'	7-7/8"	413 cu ft.	

LINER RECORD

30. TUBING RECORD (back)

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-3/8"	7522'	

Perforation Record (Interval, size and number)  
 7305' - 7560', 4jspf, .41"; 7412' - 7394', 7434' - 7400', 7446' - 7440', 7465' - 7460', 7492' - 7486', 7524' - 7520', 2jspf, .38"  
 Total of 154 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
7394' - 7560'	100, 700# + surface line volume of crosslinked gel & 20-40 sand

PRODUCTION

First Production 14-84	Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing	Well Status (Prod. or Shut-in)
Hours of Test 15-84 3 Hrs.	Choke Size .75	Prod'n. For Test Period Oil - Bbl. Gas - MCF Water - Hbl. Gas - Oil Ratio 189
Tubing Press. 18 psig	Casing Pressure 556 psig	Calculated 24-Hour Rate Oil - Bbl. Gas - MCF Water - Hbl. Oil Gravity - API (Corr.) 1510

Disposition of Gas (Sold, used for fuel, vented, etc.)  
 be sold

Test Witnessed By  
 J. Barnett

I hereby certify that the information on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED B. D. Shaw Original Signed By  
 TITLE Adm. Supervisor  
 DATE 7-2-84

Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-104  
Revised 1-1-89  
See Instructions  
at Bottom of Page

**OIL CONSERVATION DIVISION**

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

OIL CONSERVATION DIVISION  
RECEIVED

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

**REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS**

AUG 22 AM 10 28

**I.**

Operator AMOCO PRODUCTION COMPANY	Well API No. 300452588300
Address P.O. BOX 800, DENVER, COLORADO 80201	
Reason(s) for Filing (Check proper box) <input type="checkbox"/> Other (Please explain)	
New Well <input type="checkbox"/>	Change in Transporter of:
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/>
Change in Operator <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input checked="" type="checkbox"/>

If change of operator give name and address of previous operator \_\_\_\_\_

**II. DESCRIPTION OF WELL AND LEASE**

Lease Name SCHNEIDER GAS COM C	Well No. 1	Pool Name, including Formation BASIN DAKOTA (PROBABLE GAS)	Kind of Lease State, Federal or Fee	Lease No.
Location Unit Letter <u>M</u> : <u>790</u> Feet From The <u>FSL</u> Line and <u>1190</u> Feet From The <u>FWL</u> Line Section <u>28</u> Township <u>32N</u> Range <u>10W</u> , <u>NMPM</u> , <u>SAN JUAN</u> County				

**III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS**

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
MERIDIAN OIL INC.	3535 EAST 30TH STREET, FARMINGTON, CO 87401
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
EL PASO NATURAL GAS COMPANY	P.O. BOX 1492, EL PASO, TX 79978
If well produces oil or liquids, give location of tanks.	Unit   Sec.   Twp.   Rge.   Is gas actually connected?   When ?

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

**IV. COMPLETION DATA**

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.	Total Depth			P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation	Top Oil/Gas Pay			Tubing Depth			
Perforations				Depth Casing Shoe				
<b>TUBING, CASING AND CEMENTING RECORD</b>								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET			SACKS CEMENT		

**V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL** (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

RECEIVED  
JUL 2 1990

**GAS WELL**

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gas - MCF
Testing Method (pitot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

**VI. OPERATOR CERTIFICATE OF COMPLIANCE**

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

*D. W. Whaley*  
Signature  
Doug W. Whaley, Staff Admin. Supervisor  
Title  
June 25, 1990  
Date  
303-830-4280  
Telephone No.

**OIL CONSERVATION DIVISION**

JUL 2 1990

Date Approved \_\_\_\_\_

By *D. Whaley*  
SUPERVISOR DISTRICT #3

Title \_\_\_\_\_

**INSTRUCTIONS:** This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

SEP 18 1987

OIL CONSERVATION DIVISION  
Form C-104  
Revised 10-01-78  
Format CB-01-83  
Page 1

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

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LAND OFFICE	
TRANSPORTER	OIL
	GAS
OPERATOR	
PROBATION OFFICE	

REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

**I. Operator**  
Amoco Production Company

**Address**  
501 Airport Drive Farmington, NM 87401

**Reason(s) for filing (Check proper box)**

<input type="checkbox"/> New Well	<input type="checkbox"/> Change in Transporter oil:	<input type="checkbox"/> Dry Gas
<input type="checkbox"/> Recompletion	<input type="checkbox"/> Oil	<input checked="" type="checkbox"/> Condensate
<input type="checkbox"/> Change in Ownership	<input type="checkbox"/> Costinghead Gas	

**Other (Please explain)**

If change of ownership give name and address of previous owner \_\_\_\_\_

**II. DESCRIPTION OF WELL AND LEASE**

<b>Lease Name</b> Schneider Gas Com C	<b>Well No.</b> 1	<b>Pool Name, including Formation</b> Basin Dakota	<b>Kind of Lease</b> State, Federal or Fee Fee	<b>Lease No.</b>
<b>Location</b>				
Unit Letter <u>M</u> : <u>790</u> Feet From The <u>South</u> Line and <u>1190</u> Feet From The <u>West</u>				
Line of Section <u>28</u> Township <u>32N</u> Range <u>10W</u> , NMPM, <u>San Juan</u> County				

**III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS**

<b>Name of Authorized Transporter of Oil</b> <input type="checkbox"/> or <b>Condensate</b> <input checked="" type="checkbox"/> Permian Corp. Permian (Eff. 9/1/87)	<b>Address (Give address to which approved copy of this form is to be sent)</b> P. O. Box 1702 Farmington, NM 87499
<b>Name of Authorized Transporter of Costinghead Gas</b> <input type="checkbox"/> or <b>Dry Gas</b> <input checked="" type="checkbox"/> El Paso Natural Gas Company	<b>Address (Give address to which approved copy of this form is to be sent)</b> P. O. Box 990 Farmington, NM 87401
<b>If well produces oil or liquids, give location of tanks.</b>	<b>Unit</b> <u>M</u> <b>Sec.</b> <u>28</u> <b>Twp.</b> <u>32N</u> <b>Range</b> <u>10W</u> <b>Is gas actually connected?</b> <u>No</u> <b>When</b>

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

NOTE: Complete Parts IV and V on reverse side if necessary.

**VI. CERTIFICATE OF COMPLIANCE**

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.

BDS Shaw  
(Signature)

Admin. Supervisor

1-2-85

(Title)

(Date)

RECEIVED  
JAN 03 1985  
OIL CON. DIV.  
DIST. #3

OIL CONSERVATION DIVISION

APPROVED JAN 25 1985, 19  
BY Charles Holton  
TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3

This form is to be filed in compliance with RULE 1134.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

NO. OF COPIES RECEIVED	
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STATE	
LE	
S.G.S.	
IND OFFICE	
OPERATOR	

Form C-105  
Revised 11-1-83

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

**RECEIVED**

5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.

7. Unit Agreement Name

8. Farm or Lease Name  
Schneider Gas Com "C"

9. Well No.  
1

10. Field and Pool, or Wildcat  
Basin Dakota

12. County  
San Juan

TYPE OF WELL  
OIL WELL  GAS WELL  DRY  OTHER JUL 16 1984

TYPE OF COMPLETION  
NEW WELL  WORK OVER  DEEPEN  PLUG BACK  DIFF. RESVR.

Name of Operator  
Maco Production Co.

Address of Operator  
101 Airport Drive, Farmington, N M 87401

Location of Well

LETTER M LOCATED 790 FEET FROM THE South LINE AND 1190 FEET FROM West

LINE OF SEC. 28 TWP. 32N RGE. 10W NMPM

Date Spudded -2-84 16. Date T.D. Reached 5-8-84 17. Date Compl. (Ready to Prod.) 5-31-84 18. Elevations (DF, RKB, RT, GR, etc.) 6071' KB 19. Elev. Casinghead 6058' GR

Total Depth 630' 21. Plug Back T.D. 7528' 22. If Multiple Compl., How Many Single 23. Intervals Drilled By: Rotary Tools O-TD Cable Tools

Producing Interval(s), of this completion - Top, Bottom, Name  
7305 - 7560'

Type Electric and Other Logs Run  
EL-GR-FDC-SNP-GR Caliper

25. Was Directional Survey Made  
Yes

27. Was Well Cored  
No

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
1-3/4"	42#, H-40	345'	14-3/4"	420 cu. ft. Class B w/12% CaCl2	
8-5/8"	24 & 28#, 5-80	3271'	10-3/4"	847 cu. ft. Class B 50:50 in w/118 cu. ft. Class B Neat	poz & tailed
-1/2"	11.6#, N-80	7571'	7-7/8"	<u>413 cu. ft.</u>	

LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-3/8"	7522'	

30. TUBING RECORD BACK

Perforation Record (Interval, size and number)  
7305' - 4jspf, .41"; 7412'-7394', 7434'-30', 7446'-7440', 7465'-7460', 7492'-7486', 60'-7524', 2jspf, .38"  
total of 154 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
7394' - 7560'	100, 700# + surface line volume of crosslinked gel & 20-40 sand

PRODUCTION

First Production 14-84 Production Method (*Flowing, gas lift, pumping - Size and type pump*) Flowing Well Status (*Prod. or Shut-in*)

of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
15-84	3 Hrs.	.75			189		

Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)
18 psig	556 psig			1510		

Disposition of Gas (*Sold, used for fuel, vented, etc.*) be sold Test Witnessed By J. Barnett

List of Attachments

I hereby certify that the information on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED BDS Shaw TITLE Adm. Supervisor DATE 7-2-84



13

EL PASO NATURAL GAS COMPANY  
POST OFFICE BOX 990  
FARMINGTON, NEW MEXICO

RECEIVED  
JUN - 5 1986  
OIL CONSERVATION DIVISION  
SANTA FE

NOTICE OF GAS CONNECTION

DATE MAY 20, 1986

THIS IS TO NOTIFY THE OIL CONSERVATION COMMISSION THAT CONNECTION FOR PURCHASE OF

GAS FROM AMOCO PRODUCTION SCHNEIDER GAS COM C #1  
Operator Well Name

95-758-01 40680-01 M 28-32-10  
Meter Code Site Code Well Unit S-T-R

BASIN DAKOTA EL PASO NATURAL GAS CO.  
Pool Name of Purchaser

WAS MADE ON APRIL 24, 1986 FIRST DELIVERY MAY 8, 1986  
Date Date

AOF -

CHOKE 1510

EL PASO NATURAL GAS CO.  
Purchaser  
[Signature]  
Representative  
Title

xc: OPERATOR  
OIL CONSERVATION COMMISSION - (2)  
PRODUCTION CONTROL - El Paso  
LEASE DEVELOPMENT - El Paso  
CONTRACT ADMINISTRATION - El Paso  
  
FILE

P  
OHS  
PER

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MAY 28 1986  
OIL CON. DIV.  
DIST. 3

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS

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DIST. 3

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special		Test Date 6-15-84	
Company Amoco Production Company		Connection Not Dedicated	
Pool Basin		Formation Dakota	
Completion Date 5-31-84	Total Depth 7630	Plug Back TD 7564	Elevation 6058 GR
Farm or Lease Name Schenider Gas Com "C"		Well No. 1	
Csq. Size 4.500	Wt. 11/6	d 4.000	Set At 7570
Perforations: From 7305 To 7560		Well No. 1	
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 7522
Perforations: From open To ended		Unit M	Sec. 28
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At None	County San Juan
Producing Thru tubing	Reservoir Temp. °F #	Mean Annual Temp. °F	Baro. Press. - P <sub>a</sub>
State New Mexico		L H G <sub>q</sub> % CO <sub>2</sub> % N <sub>2</sub> % H <sub>2</sub> S Prover Meter Run Taps	

NO.	FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
1.	9 Days						2815		2815	
1.	2.375	.750					118		556	3 hrs.
2.										
3.										
4.										
5.										

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor Ft.	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow
							Q, Mc/d
1	12.365		130	1.000	.9258	1.015	1510
2.							
3.							
4.							
5.							

NO.	P <sub>t</sub>	Temp. °R	T <sub>t</sub>	Z	Gas Liquid Hydrocarbon Ratio _____ Mc'/bbi.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P <sub>c</sub> 2827	P <sub>c</sub> <sup>2</sup> 7991929	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0421$	(2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0314$	
NO.	P <sub>t</sub> <sup>2</sup>	P <sub>w</sub>	R <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - R <sub>w</sub> <sup>2</sup>
1		568	322624	7669305
2				
3				
4				
5				

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1557$

Absolute Open Flow \_\_\_\_\_ Mc/d @ 15.025 Angle of Slope  $\theta$  \_\_\_\_\_ Slope, n .75

Remarks: Heavy H<sub>2</sub>O Did not flare

Approved By Division	Conducted By: J. Barnett	Calculated By: J. Barnett	Checked By:
----------------------	-----------------------------	------------------------------	-------------

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

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OPERATOR	
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OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-104  
Revised 10-01-78  
Format 06-01-83  
Page 1

REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

I. Operator  
Amoco Production Company

Address  
501 Airport Drive Farmington, NM 87401

Reason(s) for filing (Check proper box)

<input type="checkbox"/> New Well	Change in Transporter of:	<input type="checkbox"/> Oil	<input type="checkbox"/> Dry Gas
<input type="checkbox"/> Recompletion	<input type="checkbox"/> Casinghead Gas	<input checked="" type="checkbox"/> Condensate	
<input type="checkbox"/> Change in Ownership			

Other (Please explain)

If change of ownership give name and address of previous owner:

II. DESCRIPTION OF WELL AND LEASE

Lease Name Schneider Gas Com C	Well No. 1	Pool Name, including Formation Basin Dakota	Kind of Lease State, Federal or Fee Fee	Lease No.
Location Unit Letter <u>M</u> : <u>790</u> Feet From The <u>South</u> Line and <u>1190</u> Feet From The <u>West</u> Line of Section <u>28</u> Township <u>32N</u> Range <u>10W</u> , NMPM, <u>San Juan</u> County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Permian Corp.	P. O. Box 1702 Farmington, NM 87499
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
El Paso Natural Gas Company	P. O. Box 990 Farmington, NM 87401
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When
	<u>M</u> <u>28</u> <u>32N</u> <u>10W</u> <u>No</u>

If this production is commingled with that from any other lease or pool, give commingling order number:

NOTE: Complete Parts IV and V on reverse side if necessary.

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.

*BDS* Shaw

Admin. Supervisor

1-2-85

(Date)

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OIL CON. DIV.  
DIST #3

OIL CONSERVATION DIVISION

APPROVED

JAN 25 1985

BY

Charles Sholes  
DEPUTY OIL & GAS INSPECTOR, DIST. #3

TITLE

This form is to be filed in compliance with RULE 1104.  
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.  
All sections of this form must be filled out completely for allowable on new and recompleted wells.  
Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.  
Separate Forms C-104 must be filed for each pool in multiply completed wells.

074 NMOCID-#  
Artec

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ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-104  
Revised 10-01-78  
Format 06-01-83  
Page 1



REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

RECEIVED  
JUL 16 1984  
OIL CON. DIV.  
DIST. 3

Company: Amoco Production Co.  
Address: 501 Airport Drive, Farmington, N M 87401

Reason(s) for filing (Check proper box):  
 New Well  
 Recompletion  
 Change in Ownership  
 Change in Transporter of:  
 Oil  
 Casinghead Gas  
 Dry Gas  
 Condensate  
 Other (Please explain):

Change of ownership give name and address of previous owner: \_\_\_\_\_

DESCRIPTION OF WELL AND LEASE

Well Name Schneider Gas Com "C"	Well No. 1	Pool Name, including Formation Basin Dakota	Kind of Lease State, Federal or Fee	Fee	Lease No.
Unit Letter <u>M</u> : <u>790</u> Feet From The <u>South</u> Line and <u>1190</u> Feet From The <u>West</u>					
Line of Section <u>28</u> Township <u>32N</u> Range <u>10W</u> , NMPM, San Juan County					

DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> Plateau, Inc.	Address (Give address to which approved copy of this form is to be sent) P.O. Box 489, Bloomfield, NM 87413
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> El Paso Natural Gas	Address (Give address to which approved copy of this form is to be sent) P.O. Box 990, Farmington, NM 87499
Well produces oil or liquids, location of tanks.	Unit : <u>M</u> Sec. : <u>28</u> Twp. : <u>32N</u> Rge. : <u>10W</u>
Is gas actually connected?	When : <u>No</u>

If production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

NOTE: Complete Parts IV and V on reverse side if necessary.

CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.

B D Shaw  
(Signature)  
Administrative Supervisor  
(Title)  
June 29, 1984  
(Date)

OIL CONSERVATION DIVISION  
APPROVED JUL 16 1984  
BY [Signature]  
TITLE SUPERVISOR DISTRICT #3

This form is to be filed in compliance with RULE 1104.  
 If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.  
 All sections of this form must be filled out completely for allowable on new and recompleted wells.  
 Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter or other such change of condition.  
 Separate Forms C-104 must be filed for each pool in multiply completed wells.

IV. COMPLETION DATA

Designate Type of Completion - (X)		Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Some Res'v.	Diff. Res'v.
			X	X					
Date Spudded 4-2-84	Date Compl. Ready to Prod. 5-31-84	Total Depth 7630'		P.B.T.D. 7528'					
Elevations (DF, RKB, RT, GR, etc.) 6058' GR	Name of Producing Formation Basin Dakota	Top Oil/Gas Pay 7304'		Tubing Depth 7522'					
Perforations * See below						Depth Casing Shoe 7571'			
<b>TUBING, CASING, AND CEMENTING RECORD</b>									
HOLE SIZE		CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			
14-3/4"		11-3/4" 42#		345'		420 cu. ft.			
10-3/4"		8-5/8" 24# & 28#		3271'		965 cu. ft.			
7-7/8"		4-1/2" 11.6#		7571'		<del> </del> cu. ft. 419			
		2-3/8"		7522'					

V. TEST DATA AND REQUEST FOR ALLOWABLE (Test must be after recovery of total volume of lost oil and must be equal to or exceed cap. allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)		
Length of Test	Tubing Pressure	Casing Pressure	Coke Size	
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF	

GAS WELL

Actual Prod. Test - MCF/D 1510	Length of Test 3 hrs.	Bbls. Condensate/MCF	Gravity of Condensate
Testing Method (press, back pr.) back pressure	Tubing Pressure (Shut-In) 2815 psig	Casing Pressure (Shut-In) 2815 psig	Coke Size .75

~~7412'-7394', 7434'-7430', 7446'-7440', 7465'-7460', 7492'-7486', 7560'-7524'~~

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1-78

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5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

OIL WELL  GAS WELL  OTHER-

Name of Operator  
Amoco Production Company

Address of Operator  
501 Airport Drive, Farmington, New Mexico 87401

Location of Well  
UNIT LETTER M 790 FEET FROM THE South LINE AND 1190 FEET FROM

THE West LINE, SECTION 28 TOWNSHIP 32N RANGE 10W NMPM.

15. Elevation (Show whether DF, RT, GR, etc.)  
6058' GR

7. Unit Agreement Name

8. Farm or Lease Name  
Schneider Gas Com "C"

9. Well No.  
1

10. Field and Pool, or Wildcat  
Basin Dakota

12. County  
San Juan

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

- FORM REMEDIAL WORK
- TEMPORARILY ABANDON
- PLUG OR ALTER CASING
- OTHER
- PLUG AND ABANDON
- CHANGE PLANS

SUBSEQUENT REPORT OF:

- REMEDIAL WORK
- COMMENCE DRILLING OPNS.
- CASING TEST AND CEMENT JOB
- OTHER Completion
- ALTERING CASING
- PLUG AND ABANDONMENT

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE-RULE 1103.

Moved in and rigged up service unit on 5-9-84. Total depth of the well is 7630' and plugback depth is 7528'. Set a cement plug from 7605'-7540' with 26 cu. ft. Class "B" Neat cement. Set cement retainer at 7564' and cement through retainer with 59 cu. ft. Class "B" Neat cement. Stung out of retainer. Shot squeeze holes with 4 jspf at 7390'. Attempted to step rate squeeze 142 cu. ft. Class "B" Neat cement with .8% Halad 9 But pressure dropped off.

Perforated interval 7306'-7305', 4 jspf, .41" in diameter for a squeeze. Squeezed at 7305' with 212 cu. ft. Class "H" and .8% Halad 9 FLA. Perforated intervals: 7412'-7394', 7434'-7430', 7446'-7440', 7465'-7460', 7492'-7486', 7560'-7524', 2 jspf, .38" in diameter.

Fraced down 2-7/8" butt tubing with crosslinked gel and 20-40 sand as follows:

Stage	Liquid Vol. (gals.)	Sand Conc. (ppg)	(BPM) Rate
1	14,000	pad (0)	20
2	7,000	1	20
3	13,000	2	20
4	32,000	3	20
5	30,000	4	20
6	4700 + surface line vol. (2% KCL)	flush	20

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

BY DD Lawson TITLE Dist. Admin. Supervisor DATE June 21, 1984

APPROVED BY James L. Gray TITLE SUPERVISOR DISTRICT # 3 DATE JUN 26 1984

CONDITIONS OF APPROVAL, IF ANY:

Land 2-3/8" tubing at 7522' and released rig on May 31, 1984.

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1-78

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LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

OIL WELL  GAS WELL  OTHER-

Name of Operator

Amoco Production Company

Address of Operator

501 Airport Drive, Farmington, New Mexico 87401

Location of Well

UNIT LETTER M 790 FEET FROM THE South LINE AND 1190 FEET FROM

THE West LINE, SECTION 28 TOWNSHIP 32N RANGE 10W NMPM.

15. Elevation (Show whether DF, RT, GR, etc.)

6058' GR

7. Unit Agreement Name

8. Farm or Lease Name  
Schneider Gas Com. "C"

9. Well No.  
1

10. Field and Pool, or WHDCat  
Basin Dakota

12. County  
San Juan

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

FORM REMEDIAL WORK   
TEMPORARILY ABANDON   
PLUG OR ALTER CASING

PLUG AND ABANDON   
CHANGE PLANS

REPAIR OR REPLACE   
COMPLETION TEST AND CEMENT JOB   
OTHER

ALTERING CASING   
PLUG AND ABANDONMENT

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent data including estimated date of starting any proposed work) SEE RULE 1103.

Spudded a 14-3/4" hole on 4-2-84. Drilled to 350'. Set 11-3/4", 42#, H-40 casing at 345' and cemented with 420 cu. ft. Class B w/2% CaCl<sub>2</sub>. Circulated cement to surface. Pressure tested casing to 1000 psi. Drilled a 10-3/4" hole to a TD of 3271'. Set 8-5/8", 24# & 28#, S-80 casing at 3271'. Cemented with 847 cu. ft. Class "B" 50:50 poz and tailed in with 118 cu. ft. Class "B" Neat cement. Circulated cement to surface. A 7-7/8" hole was drilled with mud to a depth of 4750' where severe lost circulation problems were encountered. After losing in excess of 2000 bbls of mud the well was dried up with air and drilling continued to 7332' feet. Severe hole sloughing at that point caused the drill string to become stuck. A free point was run and the pipe was backed off at 6657' leaving 17 drill collars in the hole. A number of unsuccessful fishing attempts were made to recover the collars. When sloughing kept fishing tools from getting below 6000 ft. the well was plugged back with a bubble cement slurry. During cement operations the drill pipe became stuck. Attempts to free the pipe by circulating out the cement were unsuccessful. Another free point was run and the drill pipe was cut off at 3865' feet. A kick-off plug was spotted from 3865'-3271' with Class H cement w/40% silica flour. Set another cement plug at 3770'-3200' with 148 cu. ft. Class "H" with 40% silica flour. Drilled plug to 3579 ft. Whipstocked with 2° bent sub. and downhole motor. Drilled 7-7/8" hole to 7630 ft. with air. Ran casing (4-1/2", 11.6#, N-80). Had fill, attempted to circulate out fill. Casing stuck at 7571'. Set slips and released rig on 5/8/84.

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

BY DD Lawson TITLE Dist. Admin. Supervisor DATE June 15, 1984

APPROVED BY [Signature] SUPERVISOR DISTRICT # 3 DATE JUN 25 1984

CONDITIONS OF APPROVAL, IF ANY:

OIL CONSERVATION DIVISION

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

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OPERATOR	

5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.

RECEIVED  
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OIL CON. DIV.  
DIST. 3

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG THE WELLS. REFER TO THE APPLICATION FOR PERMIT - (FORM C-101) FOR SUCH PROPOSALS.)

OIL WELL  GAS WELL  OTHER- \_\_\_\_\_

Name of Operator: Amoco Production Company

Address of Operator: 501 Airport Drive Farmington, N M 87401

Location of Well:  
UNIT LETTER M 790 FEET FROM THE South LINE AND 1190 FEET FROM  
THE West LINE, SECTION 28 TOWNSHIP 32N RANGE 10W NMPM.

15. Elevation (Show whether DF, RT, GR, etc.)  
6058' GR

7. Unit Agreement Name

8. Farm or Lease Name  
Schneider Gas Com "C"

9. Well No.  
1

10. Field and Pool, or Wildcat  
Basin Dakota

12. County  
San Juan

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK

TEMPORARILY ABANDON

WELL OR ALTER CASING

OTHER Deviate Hole

PLUG AND ABANDON

CHANGE PLANS

REMEDIATION WORK

COMMENCE DRILLING OPNS.

CASING TEST AND CEMENT JOBS

OTHER \_\_\_\_\_

ALTERING CASING

PLUG AND ABANDONMENT

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Amoco Production Company requests confirmation of the verbal approval to deviate the referenced hole per telecon between Frank Chavez, NMOCD, and Scott Pann, of this office, on 4-24-84.

The hole had sloughed in around our drill collars which ultimately caused the collars to be stuck downhole. After unsuccessful attempts to pull out of the hole the drill collars were cut. This left 17 drill collars, a bit, and bit sub in the hole at approximate interval of 6811'-7332'. Attempts to retrieve the drill collars were unsuccessful as the hole was sloughed in.

Amoco proposes to spot 858 cu. ft. Class "B" cement with 77# B37 bubbles/sx from interval 4000'-6000'. After waiting 12 hours on cement the cement will be tagged to insure proper bonding.

A 361 cu. ft. Class "H" cement plug with 2% CaCl2 and 40% Silica Flour will then be spotted from interval 3271' (Base of intermediate casing) - 4000' then allowed to set up 24 Hr. A bent sub and downhole motor will be tripped in the hole and kicked off to 15-20' from the wellbore. Trip in the hole with a slick bottom-hole assembly then continue drilling operations with Gas/Air circulating media.

Copies of this sundry notice are being sent to all offset operators in compliance with State

I, hereby certify that the information above is true and complete to the best of my knowledge and belief.

Rule III.

SIGNED BDS Shaw TITLE Administrative Supervisor DATE 4-26-84

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT # 3 DATE MAY 01 1984

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LAND OFFICE	
OPERATOR	

5A. Indicate Type of Lease  
STATE  FEE

5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

a. Type of Work  
b. Type of Well  
DRILL  DEEPEN  PLUG BACK   
OIL WELL  GAS WELL  OTHER   
SINGLE ZONE  MULTIPLE ZONE

7. Unit Agreement Name

8. Term or Lease Name  
Schneider Gas Com "C"

c. Name of Operator  
Amoco Production Company

9. Well No.  
1

d. Address of Operator  
501 Airport Drive, Farmington, New Mexico 87401

10. Field and Pool, or Wildcat  
Basin Dakota

e. Location of Well  
UNIT LETTER M LOCATED 790 FEET FROM THE South LINE

NO. 1190 FEET FROM THE West LINE OF SEC. 28 TWP. 32N RGE. 10W HMPM

12. County  
San Juan

18. Proposed Depth 7580'	19A. Formation Dakota	20. Rotary or C.T. Rotary
21A. Kind & Status Plug. Bond Statewide	21B. Drilling Contractor Unknown	22. Approx. Date Work will start As soon as permitted

1. Elevations (Show whether DF, RT, etc.)  
6058' GR

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
14-3/4"	11-3/4"	42#, H-40	300'	350	Circ. to Surface
10-5/8"	8-5/8"	24x28#, S-80	3265'	550	Circ. to Surface
7-7/8"	4-1/2" Liner	11.6#, K-55	3065'-7580'	1000	3200'

Amoco proposes to drill the above well to develop the Basin Dakota reservoir. The well will be drilled to the surface casing point using native mud. The well will then be drilled to TD with low solids nondispersed mud system. Completion will be designed after evaluation of open hole logs. Copies of all logs will be filed upon completion. Gas produced from this well is dedicated to El Paso Natural Gas.

Amoco's standard blowout prevention will be employed (see attached drawing for blowout preventer design.) Upon completion, the well site will be cleaned and the reserve pit filled and leveled.

APPROVAL EXPIRES 2-1-84  
UNLESS DRILLING IS COMMENCED.  
SPUD NOTICE MUST BE SUBMITTED  
WITHIN 10 DAYS.

RECEIVED  
FEB 01 1984

OIL CON. DIV.  
DIST. 3

ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTION RATE AND PROPOSED NEW PRODUCTION RATE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed DD Lawson Title District Adm. Supervisor Date January 30, 1984

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT # 3 DATE FEB 01 1984

CONDITIONS OF APPROVAL, IF ANY:

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107  
Revised 10-1-78

STATE OF NEW MEXICO  
OIL AND MINERALS DEPARTMENT

All distances must be from the outer boundaries of the Section.

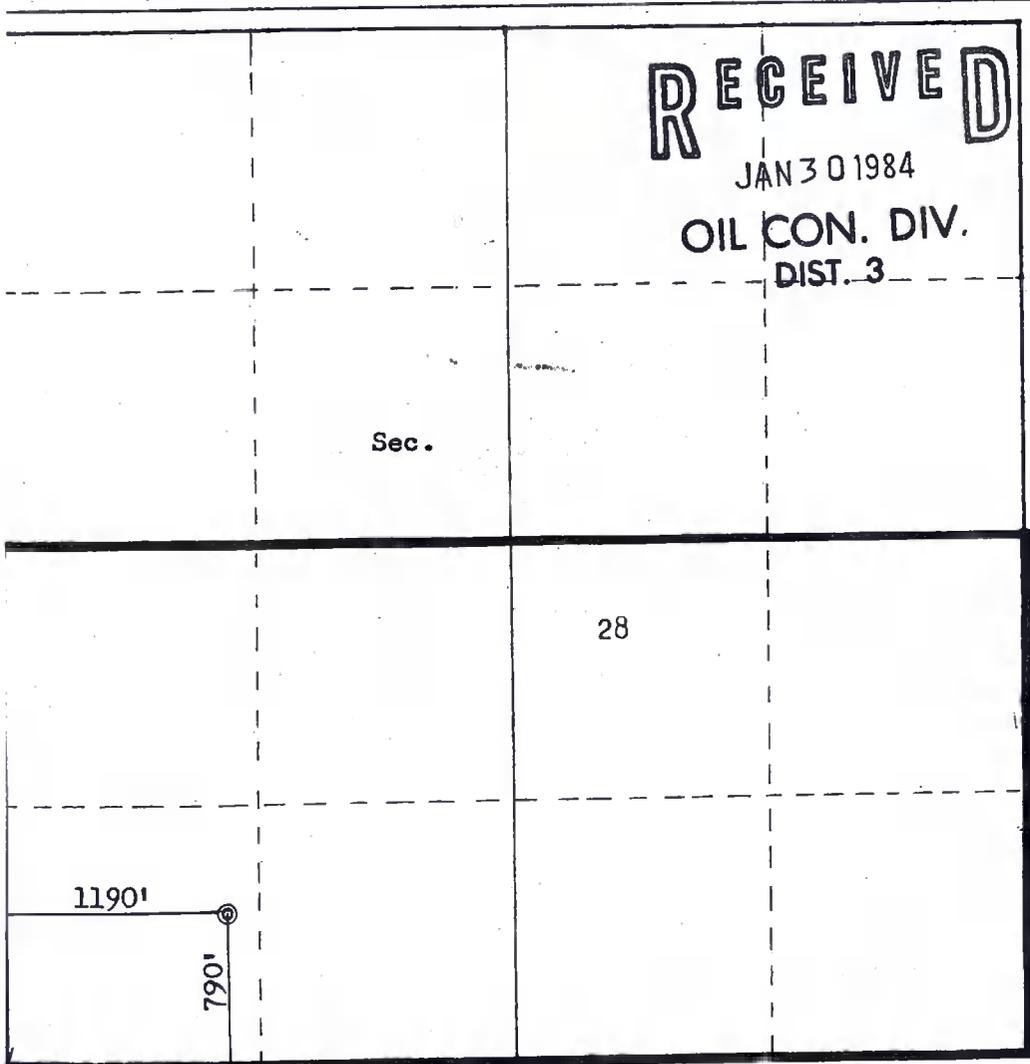
Operator <b>AMOCO PRODUCTION COMPANY</b>		Lease <b>SCHNEIDER GAS COM 'C'</b>		Well No. <b>1</b>
Init Letter <b>M</b>	Section <b>28</b>	Township <b>32N</b>	Range <b>10W</b>	County <b>San Juan</b>
Actual Footage Location of Well: <b>790</b> feet from the <b>South</b> line and <b>1190</b> feet from the <b>West</b> line				
Ground Level Elev. <b>6058</b>	Producing Formation <b>Basin Dakota</b>	Pool <b>Dakota</b>	Dedicated Acreage: <b>320</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes  No If answer is "yes," type of consolidation Communitized

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



Scale: 1"=1000'

<b>CERTIFICATION</b>	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
<i>Darrell D. Lawson</i>	
Name	Darrell D. Lawson
Position	District Adm. Supervisor
Company	Amoco Production Company
Date	January 23, 1984
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 knowledge and belief.	
Date Surveyed	January 11, 1984
Registered Professional Engineer and Land Surveyor	<i>Fred B. Kerr Jr.</i> Fred B. Kerr Jr.
Certificate No.	3950



San Juan Performance Unit

Mary Corley  
WL1-19.171  
281-366-4491 (direct)  
281-366-0700 (FAX)  
[corleyml@bp.com](mailto:corleyml@bp.com)

P. O. Box 3092  
Houston, Texas 77253-3092  
501 Westlake Park Boulevard  
Houston, Texas 77079

February 12, 2003

State of New Mexico  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Application For Well Category Determination  
NGPA Section 107  
San Juan County, New Mexico**

Attached please find a check in the amount of \$125.00 payable to the State of New Mexico for NGPA Section 107 Well Category Determinations for the below listed BP America Production Company wells.

Lopez Gas Com 1E	Dakota Pool	NM - 34
Schneider Gas Com C 1	Dakota Pool	NM - 09
Jacquez Gas Com F 1	Dakota Pool	NM - 09
Sullivan Gas Com 1A	Mesaverde	NM - 48
Hubbard A 1E	Mesaverde	NM - 48

Also enclosed, for review and approval by the Oil Conservation Division, are the original and one copy of an Application for Well Category Determination for each of the referenced wells.

Very truly yours,

Mary Corley  
Sr. Regulatory Analyst

Enclosures



BP America Production Company  
509 South Boston  
Tulsa, OK 74103

82-20 No. 0800552148  
311

02/19/03

PAY TO THE  
ORDER OF

STATE OF NEW MEXICO  
2040 PACHEO ST  
SANTA FE NM 87505

\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$125.00

NOT VALID AFTER 6 MONTHS

One Hundred Twenty Five and 00/100 Dollars

TRACE NO.: 2000040613

CITIBANK DELAWARE, A SUBSIDIARY OF CITICORP  
ONE PENN'S WAY, NEW CASTLE, DE 19720

  
AUTHORIZED SIGNATURE

⑈0800552148⑈ ⑆031100209⑆ 39116481⑈

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 7361  
Order No. R-6884

APPLICATION OF SOUTHLAND ROYALTY  
COMPANY FOR DESIGNATION OF A TIGHT  
FORMATION, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on September 29, 1981, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 12th day of January, 1982, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That, pursuant to Section 107 of the Natural Gas Policy Act of 1978, and CFR Section 271.703, applicant Southland Royalty Company requested the designation as a "tight formation" of the Dakota formation underlying the following described lands:

SAN JUAN COUNTY, NEW MEXICO

TOWNSHIP 31 NORTH, RANGE 10 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 31 NORTH, RANGE 11 WEST, NMPM  
Section 1: All  
Sections 12 and 13: All  
Sections 22 through 27: All  
Sections 34 through 36: All

TOWNSHIP 32 NORTH, RANGE 10 WEST, NMPM  
Sections 7 through 36: All

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM

Sections 7 through 27: All

Sections 34 through 36: All

TOWNSHIP 32 NORTH, RANGE 12 WEST, NMPM

Sections 7 through 33: All

TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM

Sections 7 through 33: All

containing a total of 92,871 acres, more or less.

(3) That at the hearing, applicant requested dismissal of that portion of the application pertaining to Sections 25 through 27, inclusive, and Sections 32 and 33, all in Township 32 North, Range 12 West, NMPM, containing some 3,200 acres, more or less, leaving for consideration some 89,671 acres, more or less.

(4) That said request for dismissal should be approved, and no further consideration given herein to said lands.

(5) That while the application was for designation of the Dakota formation as a tight formation, the Dakota formation constitutes but a portion of the "Dakota Producing Interval," which, as defined by the Division, comprises the vertical limits of the Basin-Dakota Gas Pool, being from the base of the Greenhorn Limestone to a point 400 feet below the base of said formation and consisting of the Graneros formation, the Dakota formation, and the productive upper limit of the Morrison formation.

(6) That inasmuch as practically all so-called "Dakota" wells drilled in the subject area are, or potentially are, tested in and/or completed in the entire Dakota Producing Interval, and the well data presented at the hearing of this case involves the entire Dakota Producing Interval, the application should be broadened to cover all of said producing interval throughout the area.

(7) That the Dakota Producing Interval, hereinafter referred to as the "Dakota," consists of a near blanket sandstone (probably an almost continuous series of northwest trending barrier beach sandstones composed of fine-grained quartose sandstones and carbonaceous shales with occasional conglomerates and coals in the basal part).

(8) That from the logs available at the hearing, the top of the Dakota in the area ranges from a depth of 5234 feet to 7220 feet and averages some 6753 feet beneath the surface.

Case No. 7361  
Order No. R-6884

(9) That the only test data for flow rates prior to stimulation for wells within the area indicates that the Aztec Pierce Well No. 2 in Section 30, Township 31 North, Range 10 West, NMPM, had a stabilized production rate calculated at atmospheric pressure of 208.1 MCF of gas per day; that other wells in the immediate vicinity of the area but just outside had stabilized production rates calculated at atmospheric pressure prior to stimulation ranging from 21.7 MCF per/day to 224.1 MCF per day.

(10) That none of the stabilized production rates cited above exceeds the maximum stabilized production rate set forth in 18 C.F.R. Section 271.703(c)(2)(i)(B) of 251 MCF per day for wells at the average depth to the top of the formation for this area (6753 feet), and it is not expected that the average well in the area will exceed such rate.

(11) That in situ permeability calculations are available for only two wells in the general area, being the Southland Pierce Well No. 2 and the Southland Patterson "B" Com Well No. 1E; that the in situ permeabilities calculated for said wells are .0609 md and .0877 md, respectively, and average .0743 md.

(12) That the average in situ permeability for all wells in the area is not expected to exceed 0.1 md, the limit set forth in 18 C.F.R. Section 271.703(c)(2)(i)(A).

(13) That prior to stimulation, the average well in the area is expected to produce far less than the maximum five barrels of crude oil per day as set forth in 18 C.F.R. Section 271.703(c)(2)(i)(C).

(14) That 18 C.F.R. Section 271.703(c)(2)(i)(D) provides that "if the formation or any portion thereof was authorized to be developed by infill drilling prior to the date of recommendation and the jurisdictional agency has information which in its judgment indicates that such formation or portion subject to infill drilling can be developed absent the incentive price established in paragraph (a) of this section then the jurisdictional agency shall not include such formation or portion thereof in its recommendation."

(15) That the Division, by its Order No. R-1670-V, dated May 22, 1979, and effective July 1, 1979, approved infill drilling for the Basin-Dakota Gas Pool in San Juan and Rio Arriba Counties, New Mexico, and said pool includes the Dakota Producing Interval in the area under consideration here.

(16) That Southland in this hearing indicated that under current Section 103 prices of the NGPA of 1978, reserves of

350,000 MCF of gas are necessary to provide it with the economics necessary to justify drilling a Dakota well at its current drilling costs, while 150,000 MCF of reserves will justify a well at Section 107(c)(5) prices (tight formations).

(17) That the economics as presented by Southland in this case are reasonable, and lands which indicate recoverable reserves of 350,000 MCF or more of gas should be dismissed from further consideration, while lands indicating recoverable reserves of less than 350,000 MCF of gas should be considered for recommendation as a tight formation.

(18) That the Division, in approving infill drilling for the Basin-Dakota Gas Pool, based its approval on the premise that the reservoir was of low permeability and that 320-acre wells were not draining more than the 160-acre tract upon which they were located.

(19) That the remaining reserves under the 160-acre tract upon which the unit well is not located should be similar to, if not equal to, the original reserves under the 160-acre tract upon which the unit well is located.

(20) That cumulative production figures and estimates of ultimate recoverable reserves were presented at the hearing for some of the developed tracts within the area, while cumulative production figures only are available for the remainder of the developed tracts.

(21) That to determine that under certain lands insufficient reserves are available to justify drilling absent the Section 107 incentive price, it is reasonable to make the following assumptions:

- A. No primary drilling, i.e., no drilling on 320-acre spacing, is prima facie evidence that the lands are edge lands to the reservoir and drilling has not occurred because of the probable marginal nature of the reserves.
- B. Primary drilling has occurred but the calculated total ultimate reserves or the cumulative production for long-connected wells indicates low ultimate recovery (less than 350,000 MCF of gas).

(22) That to determine that under certain lands sufficient reserves may reasonably be expected to be recovered to justify drilling without the Section 107 incentive price, it is reasonable to make the following assumptions:

- A. Calculated ultimate recoverable reserves are 350,000 MCF or more.
- B. Calculated ultimate recoverable reserves are not available, but cumulative recoveries indicate that 350,000 MCF of gas already has been recovered.

(23) That the assumptions in Findings Nos. (21) B. and (22) A. and B. above may reasonably be based on offsetting wells in a given area.

(24) That the evidence indicates that it is unreasonable to expect that wells drilled in the area described in Finding No. (2) above less the area described in Finding No. (3) above will yield an average of 350,000 MCF or more of gas, but that it is reasonable to expect that such wells will yield an average of 150,000 MCF of gas, and that the incentive Section 107 (c) (5) price is necessary to justify drilling in said area.

(25) That there are fresh water aquifers underlying the lands being considered, and these aquifers extend to a depth of approximately 1200 feet.

(26) That there is a vertical distance of some 5500 feet between the base of the lowermost of said aquifers and the top of the Dakota, and this distance, combined with the required casing and cementing program for wells in the area, will assure that development of the Dakota will not adversely affect the fresh water aquifers (during both hydraulic fracturing and waste disposal operations) that are or are expected to be used as a domestic or agricultural water supply.

(27) That the Dakota Producing Interval underlying the following lands meets all of the guidelines set forth in 18 C.F.R. Section 271.703(c) (2) (i), subsections (A), (B), (C), and (D), and should be recommended for designation as a tight formation:

TOWNSHIP 31 NORTH, RANGE 10 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 31 NORTH, RANGE 11 WEST, NMPM  
Section 1: All  
Sections 12 and 13: All  
Sections 22 through 27: All  
Sections 34 through 36: All

TOWNSHIP 32 NORTH, RANGE 10 WEST, NMPM  
Sections 7 through 36: All

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM  
Sections 7 through 27: All  
Sections 34 through 36: All

TOWNSHIP 32 NORTH, RANGE 12 WEST, NMPM  
Sections 7 through 24: All  
Sections 28 through 31: All

TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM  
Sections 7 through 29: All  
Sections 32 through 36: All

containing some 89,671 acres, more or less, all in San Juan County, New Mexico.

IT IS THEREFORE ORDERED:

(1) That it be and hereby is recommended to the Federal Energy Regulatory Commission pursuant to Section 107 of the Natural Gas Policy Act of 1978, and 18 C.F.R. Section 271.703, that the Dakota Producing Interval, being from the base of the Greenhorn Limestone to a point 400 feet below the base of said formation and consisting of the Graneros formation, the Dakota formation and the productive upper portion of the Morrison formation, underlying the following described lands in San Juan County, New Mexico, be designated as a tight formation:

TOWNSHIP 31 NORTH, RANGE 10 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 31 NORTH, RANGE 11 WEST, NMPM  
Section 1: All  
Sections 12 and 13: All  
Sections 22 through 27: All  
Sections 34 through 36: All

TOWNSHIP 32 NORTH, RANGE 10 WEST, NMPM  
Sections 7 through 36: All

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM  
Sections 7 through 27: All  
Sections 34 through 36: All

TOWNSHIP 32 NORTH, RANGE 12 WEST, NMPM  
Sections 7 through 24: All  
Sections 28 through 31: All

TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM  
Sections 7 through 29: All  
Sections 32 through 36: All

-7-

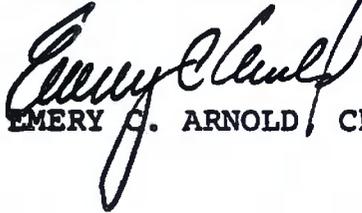
Case No. 7361  
Order No. R-6884

containing approximately 89,671 acres, more or less.

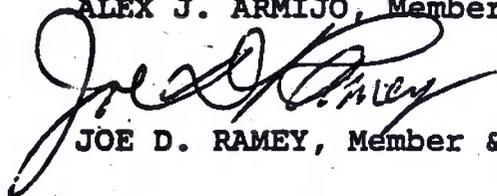
(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
EMERY C. ARNOLD, Chairman

ALEX J. ARMIJO, Member

  
JOE D. RAMEY, Member & Secretary

S E A L



(B) *Depth.* The Wattenberg J Sand Formation ranges in depth from 7,600 feet to 8,400 feet. The average depth is 8,000 feet.

(ii) *The J Sand Formation.*—(A) *Delineation of formation.* This formation underlies all or portions of Townships 1 and 2 South, Ranges 69 and 70 West; Townships 1 and 2 North, Range 70 West; Townships 3 and 4 North, Ranges 69 and 70 West; Township 5 North, Range 63 West; and Township 6 North, Ranges 63 through 69 West, 6th P. M.

(B) *Depth.* The J Sand Formation ranges from a depth of 7,600 feet to 8,400 feet. The average depth is approximately 8,000 feet.

[FR Doc. 82-27433 Filed 10-5-82; 8:45 am]

BILLING CODE 6717-01-M

18 CFR Part 271

[Docket No. RM79-76-103 (New Mexico—9); Order No. 262]

High-Cost Gas Produced From Tight Formations; New Mexico; Final Rule

AGENCY: Federal Energy Regulatory Commission, DOE.

ACTION: Final rule.

**SUMMARY:** The Federal Energy Regulatory Commission is authorized by section 107(c)(5) of the Natural Gas Policy Act of 1978 to designate certain types of natural gas as high-cost gas where the Commission determines that the gas is produced under conditions which present extraordinary risks or costs. Under section 107(c)(5), the Commission issued a final regulation designating natural gas produced from tight formations as high-cost gas which may receive an incentive price (18 CFR 271.703). This rule established procedures for jurisdictional agencies to submit to the Commission recommendations of areas for designation as tight formations. This final order adopts the recommendation of the State of New Mexico Energy and Minerals Department, Oil Conservation Division, that the Dakota Producing Interval be designated as a tight formation under § 271.703(d).

**EFFECTIVE DATE:** This rule is effective September 30, 1982.

**FOR FURTHER INFORMATION CONTACT:** Leslie Lawner, (202) 357-8511 or Victor Zabel, (202) 357-8816.

**SUPPLEMENTARY INFORMATION:**

The Commission hereby amends § 271.703(d) of its regulations to include the Dakota Producing Interval in San Juan County, New Mexico, as a

designated tight formation eligible for incentive pricing under § 271.703. The amendment was proposed in a Notice of Proposed Rulemaking by the Director, Office of Pipeline and Producer Regulation, issued March 3, 1982 (47 FR 10241, March 10, 1982),<sup>1</sup> based on a recommendation by the State of New Mexico Energy and Minerals Department, Oil Conservation Division (New Mexico) in accordance with § 271.703, that the Dakota Producing Interval be designated as a tight formation.

The Commission received two comments in response to the Notice of Proposed Rulemaking in this docket, one jointly filed by Southern California Gas Company and Pacific Lighting Gas Supply Company (SoCal) and one from Pacific Gas and Electric Company (PG&E).

Both commenters noted that New Mexico Order No. R-1670-V, issued May 22, 1979, authorized infill drilling in the Basin Dakota Gas Pool. The fact that the recommended area is subject to an infill drilling order, the commenters argue, indicates that certain areas within the recommended formation may be subject to exclusion from the tight formation designation under § 271.703(c)(2)(i)(D). Section 271.703(c)(2)(i)(D) provides that:

If the formation or any portion thereof was authorized to be developed by infill drilling prior to the date of recommendation and the jurisdictional agency has information which in its judgment indicates that such formation or portion subject to infill drilling can be developed absent the incentive price established in paragraph (a) of this section then the jurisdictional agency shall not include such formation or portion thereof in its recommendation.

Section 271.703(b)(6) defines infill drilling as any drilling in a substantially developed formation or portion thereof, subject to well spacing or proration unit requirements which were amended by the jurisdictional agency after the formation or portion thereof was substantially developed, and which were adopted for the purpose of more effective and efficient drainage of the reservoirs in such formation. Therefore, if the recommended formation was substantially developed at the time that Order No. R-1670-V was issued, then such area should be excluded from the tight formation designation.

The recommended area was governed by special rules and regulations promulgated by New Mexico in Order No. R-1670-C, issued November 4, 1960. This order consolidated all Dakota

<sup>1</sup> No party requested a hearing and no hearing was held.

Producing Interval production in San Juan and Rio Arriba Counties, created the Basin Dakota Gas Pool, and established 320 acre gas proration units. Order No. R-1670-V retained the 320 acre units, but allowed the drilling of an additional well on each unit. There are 304 drilling units contained in the recommended area. Prior to the issuance of Order No. R-1670-V, wells had been completed on 23 of these units, representing 7.6% of the available drilling sites. The Commission therefore finds that the recommended area does not fall within the infill drilling exclusion because the area was not substantially developed at the time the infill drilling order was issued.

SoCal also raised specific questions concerning the recommendation.<sup>2</sup> In Exhibit No. 6, the applicant before New Mexico presented pressure data for calculation of the permeability of the Patterson "B" well; however, a shut-in bottom hole pressure from a well 9,600 feet south of this well was used for this calculation. SoCal questions the accuracy of permeability figures based on data from more than one well. The Commission recognizes that it is an accepted procedure when working with formations of low permeability characteristics to use data from other wells, since the bottom hole pressure will not vary appreciably across the area, and the amount of time needed for the pressure to build back up in a recently drilled well is too long for practical measurement.

With respect to Exhibit No. 7, SoCal questioned the validity of using a calculated "shut-in bottom hole pressure at draining radius" (which measures wellhead pressure) in determining *in situ* permeability for the Southland Pierce No. 2 Well. The Commission finds that this is a standard petroleum engineering practice to calculate bottom hole pressure from a wellhead pressure by using a generally accepted formula.

SoCal further questioned Exhibit No. 13, which gives cumulative oil

<sup>2</sup> SoCal notes that a transcript of the New Mexico proceeding was not in the Commission's files, and that this made it impossible for SoCal to correctly evaluate the data submitted in support of the recommendation. The Commission staff had requested a copy of the transcript from New Mexico, but did not receive it until after SoCal's comments were filed. There is no affirmative requirement that a jurisdictional agency submit a transcript with its recommendation. However, SoCal was informed of the receipt of the transcript, and had an opportunity to examine it. SoCal has not filed any additional comments since the transcript was received. Moreover, the Commission's review of the transcript indicates that it does not contain any type of data that was not included in the recommendation as initially received by the Commission.

production data for several wells in the area, but which gives no rate of oil production, in light of § 271.703(c)(2)(i)(C), which provides that no well drilled in the tight formation is expected to produce, before stimulation, more than five barrels of crude oil per day. In response to an inquiry by Commission staff, a letter was submitted by the applicant to New Mexico, dated July 23, 1982, in which it clarified the evidence in this exhibit, by stating that (1) oil and condensate production is not distinguished by the producer when reporting to New Mexico, (2) the production listed in the exhibit is post-stimulation condensate production, and (3) there is no actual oil production from the wells listed in the exhibit.

Finally, PG&E maintained that since El Paso Natural Gas Company, which has an extensive infill drilling program in the San Juan Basin, is able to price gas produced through this program on a cost-of-service basis, it is guaranteed full recovery of its costs and expenses, plus a reasonable rate of return. PG&E argues therefore that an incentive price is not necessary or justified. The Commission has already addressed this issue in two prior tight formation orders, Order No. 235, Docket No. RM79-76-097 (New Mexico—8), issued June 4, 1982, and Order No. 244, Docket No. RM79-76-109 (New Mexico—12), issued August 4, 1982. The Commission stated in Order No. 244:

The issue in this docket is whether the recommended \* \* \* [formation meets the standards prescribed in § 271.703(c)]. Moreover, there are or can be gas producers in the recommended formation other than El Paso, which do not receive cost-of-service pricing for gas produced therefrom. Finally, the tight formation incentive price is a ceiling price, and as such there is no guarantee that a producer, including a pipeline, will be able to charge and collect that price.<sup>1</sup>

This rationale is equally applicable in this case.

Based upon the above discussion, the Commission finds that the evidence submitted by New Mexico supports the assertion that the Dakota Producing Interval meets the guidelines contained in § 271.703(c)(2)(i). The Commission adopts the New Mexico recommendation.

This amendment shall become effective immediately. The Commission has found that the public interest dictates that new natural gas supplies be developed on an expedited basis, and, therefore, incentive prices should be made available as soon as possible. The need to make incentive prices

immediately available establishes good cause to waive the thirty-day publication period.

#### List of Subjects in 18 CFR Part 271

Natural gas, Incentive price, Tight formations.

(Department of Energy Organization Act, 42 U.S.C. 7101 *et seq.*; Natural Gas Policy Act of 1978, 15 U.S.C. 3301-3432; Administrative Procedure Act, 5 U.S.C. 553)

In consideration of the foregoing, Part 271 of Subchapter H, Chapter I, Code of Federal Regulations, is amended as set forth below, effective September 30, 1982.

By the Commission.

Kenneth F. Plumb,

Secretary.

September 30, 1982.

#### PART 271 [AMENDED]

Section 271.703 is amended by adding new paragraph (d)(110) to read as follows:

##### § 271.703 Tight formations.

(d) *Designated tight formations.* \* \* \* (110) *The Dakota Producing Interval in New Mexico.* RM79-76-103 (New Mexico—9). (i) *Delineation of formation.* The Dakota Producing Interval is found within the Basin-Dakota Gas Pool in the northwestern portion of the San Juan Basin near the Hogback Monocline. It is found in San Juan County, in Township 31 North, Range 10 West, NMPM, Sections 1 through 38; Township 31 North, Range 11 West, NMPM, Sections 1, 12, 13, 22 through 27 and 34, 35 and 36; Township 32 North, Range 10 West, NMPM, Sections 7 through 36; Township 32 North, Range 11 West, NMPM, Sections 7 through 27 and 34, 35 and 36; Township 32 North, Range 12 West, NMPM, Sections 7 through 24, 28 through 31; and Township 32 North, Range 13 West, NMPM, Sections 7 through 29 and 32 through 36.

(ii) *Depth.* The Dakota Producing Interval begins at the base of the Greenhorn Limestone and consists of the Graneros Formation, the Dakota Formation and the productive upper limit of the Morrison Formation. The average depth to the top of the Dakota Producing Interval is 6,753 feet. The gross thickness of the interval averages 400 feet.

[FR Doc. 82-2784 Filed 10-6-82; 8:45 am]

BILLING CODE 4717-01-M

#### 18 CFR Part 271

(Docket No. RM79-76-080 (Texas—16); Order No. 263)

#### High-Cost Gas Produced From Tight Formations; Texas; Final Rule

AGENCY: Federal Energy Regulatory Commission, DOE.

ACTION: Final rule.

**SUMMARY:** The Federal Energy Regulatory Commission is authorized by section 107(c)(5) of the Natural Gas Policy Act of 1978 to designate certain types of natural gas as high-cost gas where the Commission determines that the gas is produced under conditions which present extraordinary risks or costs. Under section 107(c)(5), the Commission issued a final regulation designating natural gas produced from tight formations as high-cost gas which may receive an incentive price (18 CFR 271.703). This rule established procedures for jurisdictional agencies to submit to the Commission recommendations of areas for designation as tight formations. This final order adopts the recommendation of the Railroad Commission of Texas that the Olmos Formation be designated as a tight formation under § 271.703(d).

**EFFECTIVE DATE:** This rule is effective September 30, 1982.

**FOR FURTHER INFORMATION CONTACT:** Leslie Lawner, (202) 357-8511 or Walter Lawson, (202) 357-8556.

#### SUPPLEMENTARY INFORMATION:

The Commission hereby amends § 271.703(d) of its regulations to include the Olmos Formation in parts of Webb and Dimmit Counties, Texas as a designated tight formation eligible for incentive pricing under § 271.703. The amendment was proposed in a Notice of Proposed Rulemaking by the Director, Office of Pipeline and Producer Regulation, issued December 7, 1981 (46 FR 60467, December 10, 1981)<sup>1</sup> based on a recommendation by the Railroad Commission of Texas (Texas) in accordance with § 271.703, that the Olmos Formation be designated as a tight formation.

Evidence submitted by Texas<sup>2</sup> supports the assertion that the Olmos

<sup>1</sup> Comments were invited on the proposed rule and two comments supporting the recommendation were received. No party requested a hearing and no hearing was held.

<sup>2</sup> The calculations for permeability and flow rates submitted by Texas are based on median values, rather than average values. However, using supplemental data supplied by Texas in response to a request from the Commission, the Commission has determined that the arithmetic average values for permeability and flow rates for the subject formation also satisfy the Commission's guidelines in § 271.703(c)(2).

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

20 FEBR 1982 161,431

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

18 C.F.R. Part 271

High-Cost Gas Produced from Tight Formations; Final Rule

Docket No. RM79-76-103 (New Mexico - 9)

ORDER NO. 262

AGENCY : Federal Energy Regulatory Commission

ACTION : Final rule

**SUMMARY :** The Federal Energy Regulatory Commission is authorized by section 107(c)(5) of the Natural Gas Policy Act of 1978 to designate certain types of natural gas as high-cost gas where the Commission determines that the gas is produced under conditions which present extraordinary risks or costs. Under section 107(c)(5), the Commission issued a final regulation designating natural gas produced from tight formations as high-cost gas which may receive an incentive price (18 C.F.R. § 271.703). This rule established procedures for jurisdictional agencies to submit to the Commission recommendations of areas for designation as tight formations. This final order adopts the recommendation of the State of New Mexico Energy and Minerals Department, Oil Conservation Division, that the Dakota Producing Interval be designated as a tight formation under § 271.703(d).

**EFFECTIVE DATE :** This rule is effective September 30, 1982.

**FOR FURTHER INFORMATION CONTACT :** Leslie Lavner, (202)357-8511 or Victor Zabel, (202) 357-8616.

Before Commissioners: C. H. Butler III, Chairman;  
Georgiana Sheldon, J. David Hughes,  
A. G. Sousa and Oliver G. Richard III.

High-Cost Gas Produced ) Docket No. RM79-76-103  
from Tight Formations ) (New Mexico - 9)

ORDER NO. 262

FINAL RULE

(Issued September 30, 1982)

The Commission hereby amends § 271.703(d) of its regulations to include the Dakota Producing Interval in San Juan County, New Mexico, as a designated tight formation eligible for incentive pricing under § 271.703. The amendment was proposed in a Notice of Proposed Rulemaking by the Director, Office of Pipeline and Producer Regulation, issued March 3, 1982 (47 Fed. Reg. 10241, March 10, 1982), <sup>1/</sup> based on a recommendation by the State of New Mexico Energy and Minerals Department, Oil Conservation Division (New Mexico) in accordance with § 271.703, that the Dakota Producing Interval be designated as a tight formation.

The Commission received two comments in response to the Notice of Proposed Rulemaking in this docket, one jointly filed by Southern California Gas Company and Pacific Lighting Gas Supply Company (SoCal) and one from Pacific Gas and Electric Company (PG&E).

Both commenters noted that New Mexico Order No. R-1670-V, issued May 22, 1979, authorized infill drilling in the Basin Dakota Gas Pool. The fact that the recommended area is subject

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<sup>1/</sup> No party requested a hearing and no hearing was held.

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to an infill drilling order, the commenters argue, indicates that certain areas within the recommended formation may be subject to exclusion from the tight formation designation under § 271.703(c)(2)(i)(D). Section 271.703(c)(2)(i)(D) provides that:

If the formation or any portion thereof was authorized to be developed by infill drilling prior to the date of recommendation and the jurisdictional agency has information which in its judgment indicates that such formation or portion subject to infill drilling can be developed absent the incentive price established in paragraph (a) of this section then the jurisdictional agency shall not include such formation or portion thereof in its recommendation.

Section 271.703(b)(6) defines infill drilling as any drilling in a substantially developed formation or portion thereof, subject to well spacing or proration unit requirements which were amended by the jurisdictional agency after the formation or portion thereof was substantially developed, and which were adopted for the purpose of more effective and efficient drainage of the reservoirs in such formation. Therefore, if the recommended formation was substantially developed at the time that Order No. R-1670-V was issued, then such area should be excluded from the tight formation designation.

The recommended area was governed by special rules and regulations promulgated by New Mexico in Order No. R-1670-C, issued November 4, 1960. This order consolidated all Dakota Producing Interval production in San Juan and Rio Arriba Counties, created the Basin Dakota Gas Pool, and established 320 acre gas proration units. Order No. R-1670-V retained the 320 acre units, but allowed the drilling of an additional well on each unit. There are 304 drilling units contained in the

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recommended area. Prior to the issuance of Order No. R-1670-V, wells had been completed on 23 of these units, representing 7.6% of the available drilling sites. The Commission therefore finds that the recommended area does not fall within the infill drilling exclusion because the area was not substantially developed at the time the infill drilling order was issued.

SoCal also raised specific questions concerning the recommendation. <sup>2/</sup> In Exhibit No. 6, the applicant before New Mexico presented pressure data for calculation of the permeability of the Patterson "B" well; however, a shut-in bottom hole pressure from a well 9,600 feet south of this well was used for this calculation. SoCal questions the accuracy of permeability figures based on data from more than one well. The Commission recognizes that it is an accepted procedure when working with formations of low permeability characteristics to use data from other wells, since the bottom hole pressure will not vary appreciably across the area, and the amount of time needed for the pressure to build back up in a recently drilled well is too long for practical measurement.

<sup>2/</sup> SoCal notes that a transcript of the New Mexico proceeding was not in the Commission's files, and that this made it impossible for SoCal to correctly evaluate the data submitted in support of the recommendation. The Commission staff had requested a copy of the transcript from New Mexico, but did not receive it until after SoCal's comments were filed. There is no affirmative requirement that a jurisdictional agency submit a transcript with its recommendation. However, SoCal was informed of the receipt of the transcript, and had an opportunity to examine it. SoCal has not filed any additional comments since the transcript was received. Moreover, the Commission's review of the transcript indicates that it does not contain any type of data that was not included in the recommendation as initially received by the Commission.

With respect to Exhibit No. 7, SoCal questioned the validity of using a calculated "shut-in bottom hole pressure at boundary radius" (which measures wellhead pressure) in determining in situ permeability for the Southland Pierce No. 2 Well. The Commission finds that this is a standard petroleum engineering practice to calculate bottom hole pressure from a wellhead pressure by using a generally accepted formula.

SoCal further questioned Exhibit No. 13, which gives cumulative oil production data for several wells in the area, but which gives no rate of oil production, in light of § 271.703(c)(2)(i)(C), which provides that no well drilled in the tight formation is expected to produce, before stimulation, more than five barrels of crude oil per day. In response to an inquiry by Commission staff, a letter was submitted by the applicant to New Mexico, dated July 23, 1982, in which it clarified the evidence in this exhibit, by stating that (1) oil and condensate production is not distinguished by the producer when reporting to New Mexico, (2) the production listed in the exhibit is post-stimulation condensate production and (3) there is no actual oil production from the wells listed in the exhibit.

Finally, PG&E maintained that since El Paso Natural Gas Company, which has an extensive infill drilling program in the San Juan Basin, is able to price gas produced through this program on a cost-of-service basis, it is guaranteed full recovery of its costs and expenses, plus a reasonable rate of return. PG&E argues therefore that an incentive price is not necessary or justified. The Commission has already addressed this issue

in two prior tight formation orders, Order No. 235, Docket No. RM79-76-097 (New Mexico - 8), issued June 4, 1982, and Order No. 244, Docket No. RM79-76-109 (New Mexico - 12), issued August 4, 1982. The Commission stated, in Order No. 244:

The issue in this docket is whether the recommended . . . [f]ormation meets the standards prescribed in § 271.703(c). Moreover, there are or can be gas producers in the recommended formation other than El Paso, which do not receive cost-of-service pricing for gas produced therefrom. Finally, the tight formation incentive price is a ceiling price, and as such there is no guarantee that a producer, including a pipeline, will be able to charge and collect that price. 3/

This rationale is equally applicable in this case.

Based upon the above discussion, the Commission finds that the evidence submitted by New Mexico supports the assertion that the Dakota Producing Interval meets the guidelines contained in § 271.703(c)(2)(i). The Commission adopts the New Mexico recommendation.

This amendment shall become effective immediately. The Commission has found that the public interest dictates that new natural gas supplies be developed on an expedited basis, and, therefore, incentive prices should be made available as soon as possible. The need to make incentive prices immediately available establishes good cause to waive the thirty-day publication period.

3/ Mimeo at p. 2.

List of Subjects in 18 C.F.R. Part 271:

Natural gas, incentive price, Tight formations.

(Department of Energy Organization Act, 42 U.S.C. §§ 7101 et seq.; Natural Gas Policy Act of 1978, 15 U.S.C. §§ 3301 - 3432; Administrative Procedure Act, 5 U.S.C. § 553.)

In consideration of the foregoing, Part 271 of Subchapter H, Chapter I, Code of Federal Regulations, is amended as set forth below, effective September 30, 1982.

By the Commission.

( S E A L )

*Kenneth F. Plumb*  
Kenneth F. Plumb,  
Secretary.

Section 271.703(d) is revised by adding new subparagraph (110) to read as follows:

§ 271.703 Tight formations.

\* \* \* \* \*

(d) Designated tight formations.

\* \* \* \* \*

(110) The Dakota Producing Interval in New Mexico.  
RM79-76-103 (New Mexico - 9).

(1) Delineation of formation. The Dakota Producing Interval is found within the Basin-Dakota Gas Pool in the northwestern portion of the San Juan Basin near the Hogback Monocline. It is found in San Juan County, in Township 31 North, Range 10 West, NMPM, Sections 1 through 36; Township 31 North Range 11 West, NMPM, Sections 1, 12, 13, 22 through 27 and 34, 35 and 36; Township 32 North, Range 10 West, NMPM, Sections 7 through 36; Township 32 North, Range 11 West, NMPM, Sections 7 through 27 and 34, 35 and 36; Township 32 North, Range 12 West, NMPM, Sections 7 through 24, 28 through 31; and Township 32 North, range 13 West, NMPM, Sections 7 through 29 and 32 through 36.

(ii) Depth. The Dakota Producing Interval begins at the base of the Greenhorn Limestone and consists of the Graneros Formation, the Dakota Formation and the productive upper limit of the Morrison Formation. The average depth to the top of the Dakota Producing Interval is 6,753 feet. The gross thickness of the interval averages 400 feet.

(ii) *Depth.* The producing interval of the Dakota-Lakota Formation is approximately 175 to 185 feet thick, and begins at the base of the Skull Creek Formation and extends to the top of the Morrison Formation. The average depth to the top of the Dakota-Lakota Formation is 9,100 feet.

(109) *Codell Formation in Colorado.* RM79-76-122 (Colorado—25).

(i) *Delineation of formation.* The Codell Formation underlies portions of Adams, Boulder, Jefferson, Larimer and Weld Counties, Colorado, and is located on the western flank of the Denver-Julesberg Basin a few miles north of Denver, Colorado. The Codell Formation is found in the following areas: Township 1 South, Ranges 64 through 70 West; Township 2 South, Ranges 69 and 70 West; Township 1 North, Ranges 64 through 70 West; Township 2 North, Ranges 64 through 69 West, all sections, Range 70 West, Sections 1 through 5, and 8 through 36; Township 3 North, Ranges 64 through 69 West, all sections, Range 70 West, Sections 1, 12, 13, 21 through 28, and 33 through 36; Township 4 North, Ranges 64 through 69 West; Township 5 North, Ranges 64 through 68 West, all sections, Range 69 West, Sections 1 through 4, 9 through 16, 20 through 29, and 31 through 36, Township 6 North, Ranges 64 through 68, all sections, Range 69 West, Sections 1 through 4, 9 through 16, 21 through 28, and 33 through 36.

(ii) *Depth.* The Codell Formation ranges in depth from 3,000 to 8,000 feet, and is generally found at a depth of 7,000 feet, and averages 15 feet in thickness.

(110) *The Dakota Producing Interval in New Mexico.* RM79-76-103 (New Mexico—9). (i) *Delineation of formation.* The Dakota Producing Interval is found within the Basin-Dakota Gas Pool in the northwestern portion of the San Juan Basin near the Hogback Monocline. It is found in San Juan County, in Township 31 North, Range 10 West, NMPM, Sections 1 through 36; Township 31 North Range 11 West, NMPM, Sections, 1, 12, 13, 22 through 27 and 34, 35 and 36; Township 32 North, Range 10 West, NMPM, Sections 7 through 36; Township 32 North, Range 11 West, NMPM, Sections 7 through 27 and 34, 35 and 36; Township 32 North, Range 12 West, NMPM, Sections 7 through 24, 28 through 31; and Township 32 North, Range 13 WEST, NMPM, Sections 7 through 29 and 32 through 36.

(ii) *Depth.* The Dakota Producing Interval begins at the base of the Greenhorn Limestone and consists of the Graneros Formation, the Dakota Formation and the productive upper limit of the Morrison Formation. The average depth to the top of the Dakota Producing Interval is 6,753 feet. The gross thickness of the interval averages 400 feet.

(111) *The Olmos Formation in Texas.* RM79-76 (Texas—16)—(i) *Dimmit and Webb Counties—(A) Delineation of formation.* The Olmos Formation is located in the northwest portion of Webb County and the southern portion of Dimmit County in Texas. The Formation includes all of that portion of Dimmit County extending approximately 14 miles north of the boundary of Webb County, and all of that portion of northwest Webb County west of a north-south line extending south from a point approximately 1.5 miles east of the southwest corner of La Salle County, and north of an east-