

GARY E. JOHNSON

GOVERNOR

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (506) 334-6176 Fax (505)334-6170

JENNIFER A. SALISBURY
CABINET SECRETARY

ADMINISTRATIVE ORDER RECOMMENDATION

Date: _	2/20/96	
PO Bo	fexico Oil Conservation Divi x 2088 Fe NM 87504-2088	ision
RE:	Proposed MCProposed NSLProposed WFXProposed NSP	Proposed SWD Proposed PMX
	examined the application reconocor OPERATOR - 27-29N-11W	ceived on 2/14/96 Davi Son Com 1= #1 15 LEASE & WELL NUMBER and my recommendations are as follows:
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Yours	truly,	· · · · · · · · · · · · · · · · · · ·



Southern

Rockies

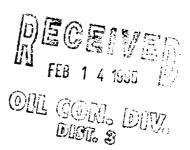
Business

Unit

February 9, 1996

Mr. William J. LeMay, Director New Mexico Oil Conservation Division 2040 S. Pacheco Street P. O. Box 6429 Santa Fe, NM 87505

Application for Exception to Rule 303-C
Downhole Commingling
Davis Gas Com F #1E Well
1490' FNL & 1110' FEL, Unit H Section 27-29N-11W
Basin Dakota and Bloomfield Chacra Pools
San Juan County, New Mexico



Amoco Production Company hereby requests administrative approval to downhole commingle production from the Basin Dakota and Bloomfield Chacra Pools in the Davis Gas Com F #1E well referenced above. The Davis Gas Com F #1E is currently a dual completion in the Dakota and Chacra formations and we believe that commingling both zones downhole in this wellbore will allow more efficient production and prevent waste. The two zones are expected to produce at a total commingled rate of about 73 MCFD with less than 1 BCPD. Downhole commingling will offer an economical method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. The ownership (WI, RI,ORI) of these pools is not common in this wellbore. Offset operators to this well and all interest owners involved in the two formations will receive a copy of this application by certified mail.

The allocation method that we plan to use for this commingled well is as follows. The Dakota and the Chacra formations have been producing as a dually completed well for some time and, as such, have a long producing history. The allocation percentages for gas would be based upon the percentage of the combined total rate. Eighty percent of gas production would be attributed to the Dakota and 20 percent of production to the Chacra formation. Historically the Chacra formation has not produced liquids and we would recommend allocating 100 percent of liquid production to the Dakota. The actual commercial value of the commingled production will not be less than the sum of the values of the production from each of the common sources of supply.

Attached to aid in your review are plats showing the location of the well and offset wells in the same formation, a historical and recent production plot and a C-102 for each formation. This spacing unit is located on a federal lease (SF-047020-B) and we will send a copy of the application to the BLM as their notice.

Should you have questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,

Pamela W. Staley

Enclosures

cc: Steve Webb

Gail Jefferson

Wellfiles

Proration Files

Frank Chavez, Supervisor

NMOCD District III

1000 Rio Brazos Road

Aztec, NM 87410

Duane Spencer

Bureau of Land Management

1235 La Plata Hwy.

Farmington, NM 87401

Application for Exception to Rule 303: SEGREGATION OF PRODUCTION FROM POOLS

Requirements

(1) Name, address and OGRID of the operator:

Amoco Production Company P.O. Box 800 Denver, CO 80201 OGRID No. 000778

(2) Lease name, well number, well location, name of the pools to be commingled:

Lease Name:

Davis Gas Com

Well Number:

F #1E

Well Location:

1490' FNL & 1110' FEL

Unit H Section 27-29N-11W San Juan County, New Mexico

Pools Commingled:

Basin Dakota Pool

Bloomfield Chacra Pool

(3) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.

Attached

(4) A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas and water produced from each zone.

The Dakota is producing at a stabilized rate of 60 MCFD and less than 1 BCPD while the Chacra was producing 15 MCFD with no condensate production.

(5) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes.

Bloomfield Chacra Completion:

Historical production curve attached.

Basin Dakota Completion:

Historical production curve attached.

(6) Estimated bottomhole pressure for each zone. A current (within 30 days) measured bottom hole pressure for each zone capable of flowing.

Bottomhole pressures were estimated from a 7 day shut-in during October 1995 during a plant shut down. Estimated bottomhole pressure in the Chacra formation is 524 PSI while the estimated bottomhole pressure in the Dakota is 1070 PSI. See attached calculations.

(7) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore.

These two formations do not produce any fluids which are incompatible and, therefore, are not expected create any effect that would prohibit commingling, or promote the creation of emulsions or scale.

(8) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

Since the BTU content of the produced gasses are very similar, we would expect the commingled production to have a similar value as the sum of the individual streams.

(9) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula:

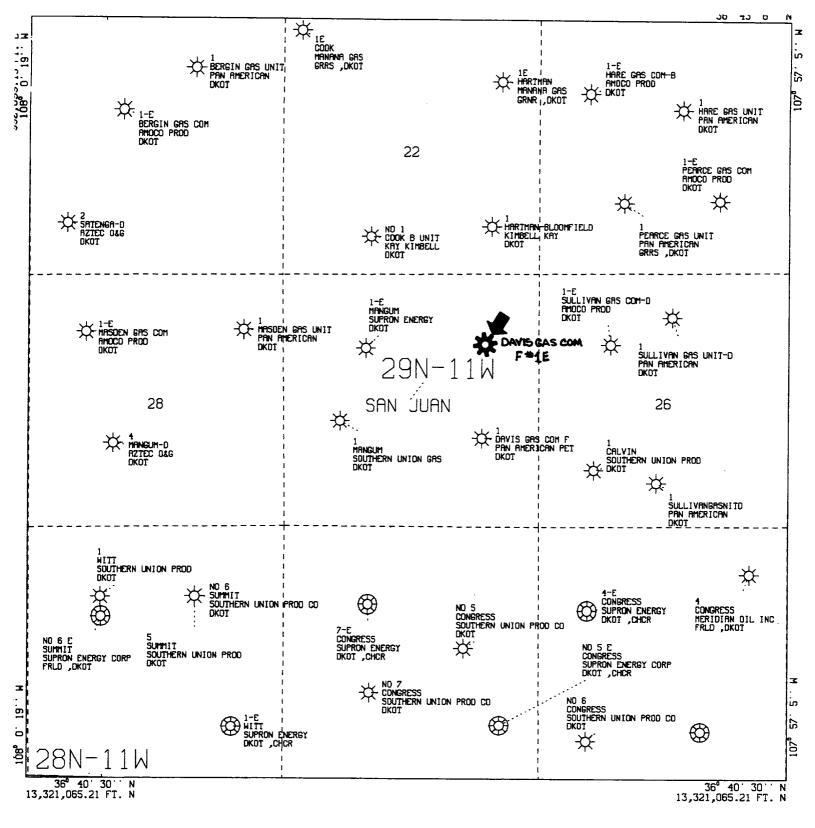
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(10) A statement that all offset operators and, in the case of a well on federal land, the United States Bureau of Land Management, have been notified in writing of the proposed commingling.

BLM will receive a copy of this application by certified mail. The offsetting operators listed on the attached sheet will receive a copy of this application by certified mail.

(11) Referencing NMOCD Order No. 10470 Rule 303 (D) (11): In a case where there is diversity of ownership between the zones to be commingled (including working royalty, or overriding royalty interest), the applicant shall submit a statement that all such interest owners have been notified in writing of the proposed commingling.

All interest owners in the two formations will receive a copy of this application by certified mail.

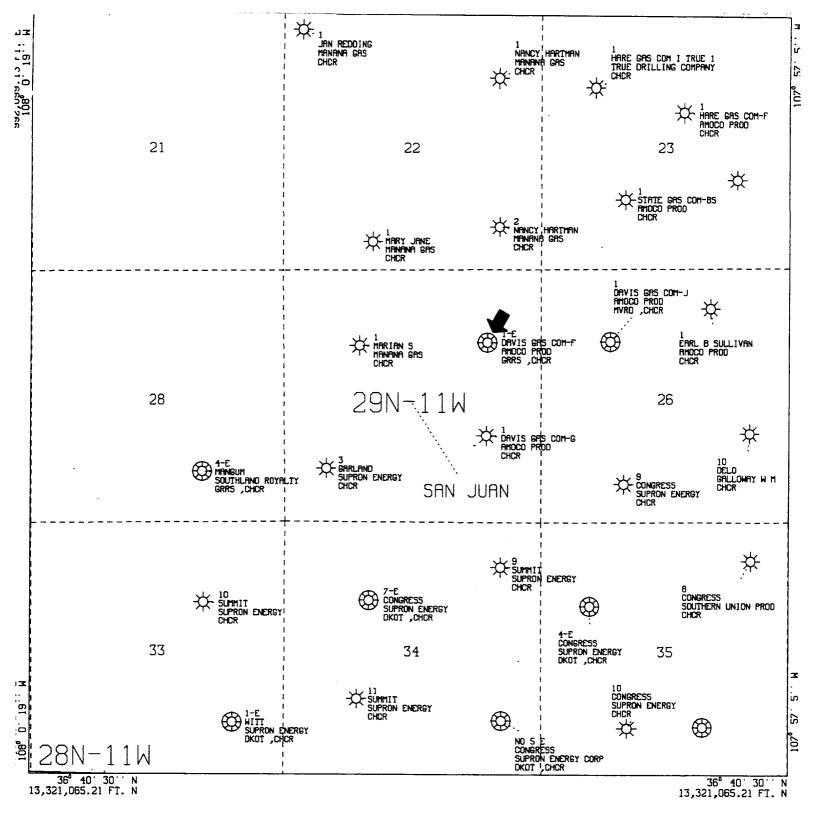


All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

POLYCONIC CENTRAL MERIDIAN - $107^{\rm o}$ 58' 42'' W LON SPHEROID - 6

AMOCO PRODUCTION COMPANY
PLAT MAP
Davis Gas Com F 1E
Dakota Formation

SCALE 1 IN. = 2,000 FT. OCT 6, 1995



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POLYCONIC CENTRAL MERIDIAN - $107^{\rm o}$ 58' 42'' W LON SPHEROID - 6

AMOCO PRODUCTION COMPANY
PLAT MAP
Davis Gas Com F 1E
Chacra Formation

SCALE 1 IN. = 2,000 FT. OCT 6, 1995

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

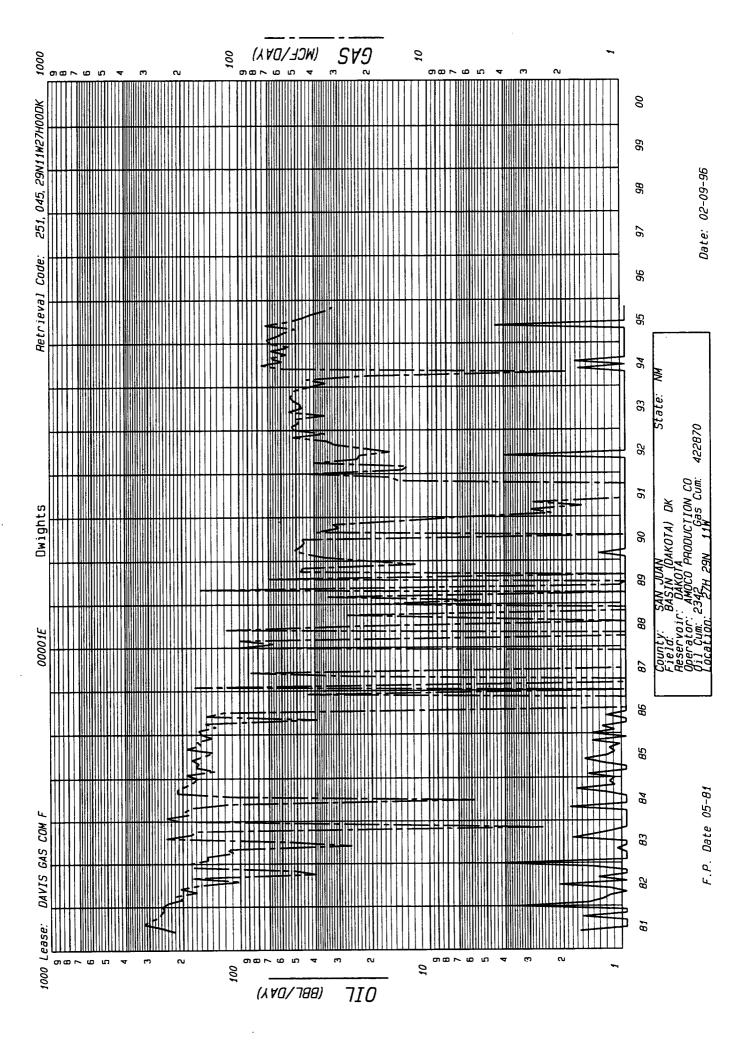
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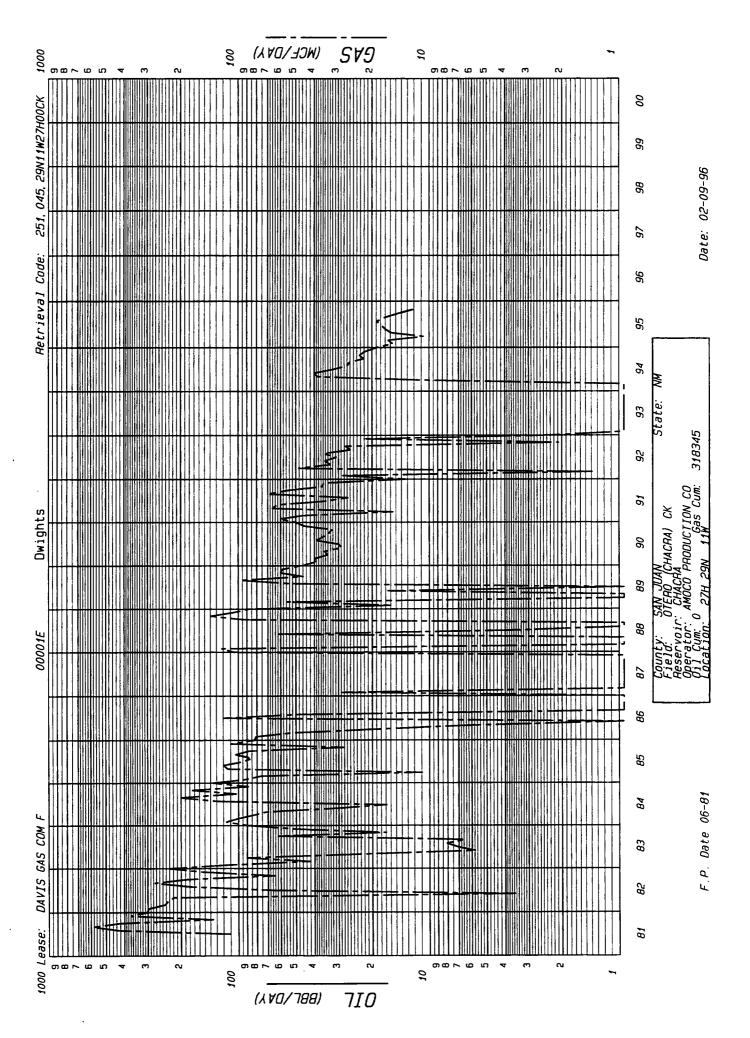
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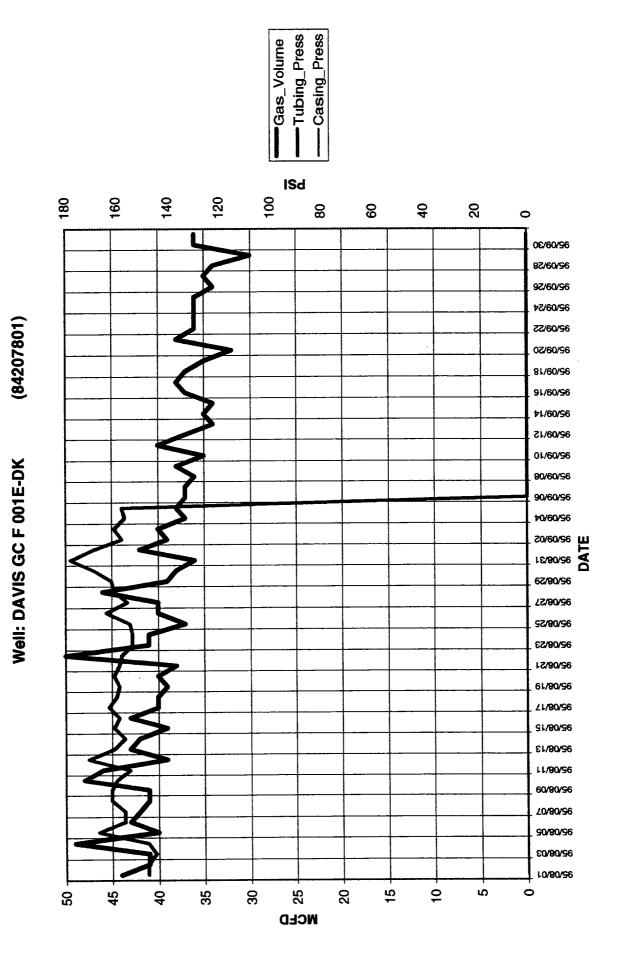
Form C-102 Revised 10-1-78

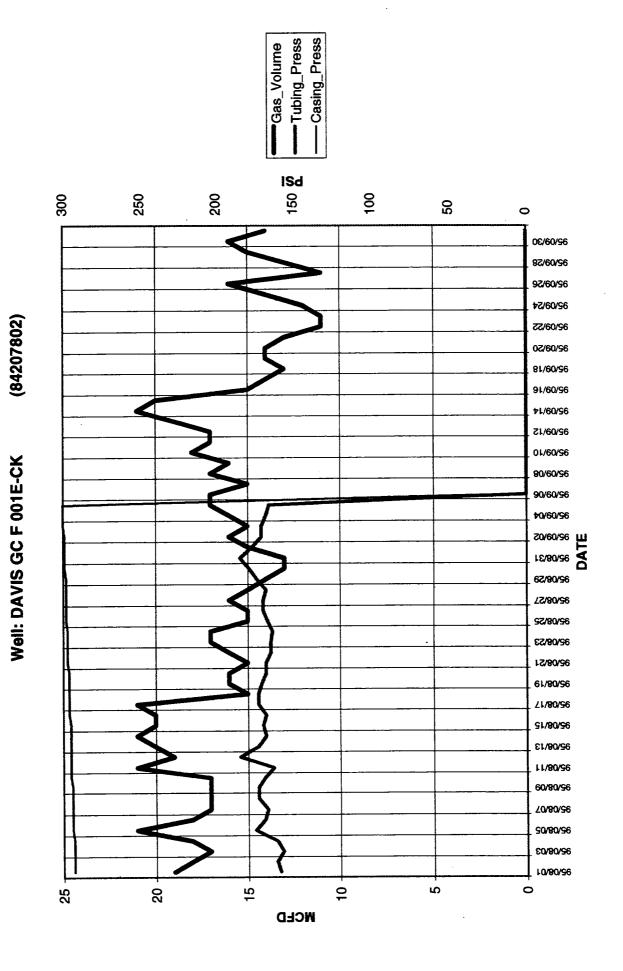
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AMOCO PRODUCTION COMPANY			DAVIS GAS COM "F"			1-E		
Unit Letter			County					
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Actual Footage Loc		- 						
1490	feet from the	North line and	1110	feet from the	East	line		
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OFFSET OPERATOR LIST DAVIS GAS COM #1E

DAKOTA SPACING UNIT

W/2 SECTION 22 E/2 SECTION 22 S/2 SECTION 23 N/2 SECTION 26 S/2 SECTION 26 W/E SECTION 27 W/2 SECTION 34 E/2 SECTION 34 N/2 SECTION 35

CHACRA SPACING UNIT

SW/4 SECTION 22 SE/4 SECTION 22 SW/4 SECTION 23 NW/4 SECTION 26 SW/4 SECTION 27 SW/4 SECTION 27 SE/4 SECTION 27

ADDRESSES:

Meridian Oil, Inc. P.O. Box 4289 Farmington, NM 87499

Manana Gas Inc. 2520 Tramway Terrace Crt NE Albuquerque, NM 87122

OPERATOR

MANANA GAS INC.
MANANA GAS INC.
AMOCO PRODUCTION CO.
AMOCO PRODUCTION CO.
MERIDIAN OIL, INC.
AMOCO PRODUCTION CO.
MERIDIAN OIL INC.
MERIDIAN OIL INC.
MERIDIAN OIL INC.

OPERATOR

MANANA GAS INC.
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AMOCO PRODUCTION CO.
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MERIDIAN OIL INC.
AMOCO PRODUCTION CO.

ESTIMATED BOTTOMHOLE PRESSURES BY FORMATION Davis Gas Com F #1E

CK Perforations at 2760' DK Perforations at 6213'

Shut in pressures taken during Chaco plant shutdown 10/95 --- CK =304 PSIG DK =573 PSIG

GRADIENT = 0.08 PSI/FT

CK BHP =304 PSIG +2760' X 0.08 PSIG =524 PSIG

DK BHP = 573 PSIG +6213' X 0.08 PSIG =1070 PSIG

524 PSI / 1070 PSI = 0.489 OR LESS THAN THE 50% DIFFERENTIAL RULE

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