Ernie Busch

From:

To: Subject: Date:

Ernie Busch Ben Stone AMOCO JICARILLA 155#28(DHC) Thursday, March 21, 1996 1:17PM High

Priority:

D-31-26N-05W RECOMMEND: APPROVAL

FORM C-115- OPERATORS MONTHLY REPORT (CONTINUATION)

FORM C-115- OPERATORS MONTHLY REPORT (CONTINUATION)															
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February 27, 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

Jicarilla 155 #28 Well

920' FWL & 1080' FNL, Unit D Section 31-T26N-R5W

Blanco Mesaverde (Pool IDN 72319) and Otero Chacra Ext. (Pool IDN 82329) Pools

Rio Arriba County, New Mexico

Amoco Production Company hereby requests administrative approval to downhole commingle production from the Blanco Mesaverde and Otero Chacra Extension Pools in the Jicarilla 155 #28 Well referenced above. The Jicarilla 155 #28 well was originally a dual completion in the Mesaverde and Chacra formations. This well has a marginal Chacra formation which is being produced dually with a marginal Mesaverde. If this well is left as a dual completion, the marginal zones will not be economic much longer. We plan to complete the well with both the Mesaverde and Chacra formations being downhole commingled in the wellbore. The two zones are expected to produce at a total commingled rate of about 266 MCFD with 2.16 BCPD due to the increased efficiencies of lifting liquids. The ownership (WI, RI,ORI) of these pools is identical in this wellbore. Downhole commingling will offer an economical method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. Offset operators to this well 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. Since these formations have been producing for some time, we have a good historical representation of the production by formation. Based on historical production we recommend that the allocation for gas production be 78% from the Mesaverde formation and 22% from the Chacra formation. The Chacra has historically produced a very small amount of liquids in this well. Based on that fact, we propose to allocate 99% of the liquid production to the Mesaverde formation and 1% of liquid production to the Chacra. 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

Southern

Rockies

Business

Unit_.

formations, a historical production plot, recent production information and a C-102 for each formation. This spacing unit is on a federal lease (Jicarilla Contract 155) and a copy of the application will be sent to the BLM as required.

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

Sincerelly,

Pamela W. Staley

Enclosures

cc:

Steve Smethie Patty Haefele Wellfile

Proration Files

Frank Chavez, Supervisor NMOCD District III 1000 Rio Brazos Road Aztec, NM 87410 Robert Kent Bureau of Land Management 435 Montano NE Albuquerque, NM 87107

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

Requirements

(1) Name and address of the operator:

Amoco Production Company P.O. Box 800 Denver, CO 80201

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

Lease Name:

Jicarilla 155

Well Number:

28

Well Location:

920' FWL & 1080' FNL

Unit D Section 31-T26N-R5W Rio Arriba County, New Mexico

Pools Commingled:

Otero Chacra Extension

Blanco Mesaverde

(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 Mesaverde produced an average stabilized rate of 91 MCFD and 1.65 BCPD. The Chacra zone produced at an average rate of about 25 MCFD and 0.01 BCPD.

(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.

Otero Chacra Extension Completion:

Historical production curve attached.

Blanco Mesaverde 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 OCD Packer Leakage Tests. Shut-in bottomhole pressure in the Chacra formation is calculated to be 553 PSIG while estimated bottomhole pressure in the Mesaverde formation is 656 PSIG. Therefore these pressures meet the pressure differential rule under article 303-C (b)(vi). See attached calculation and packer leakage test results.

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

The fluids in the Mesaverde have no abnormal components that would prohibit commingling, or promote the creation of emulsions or scale when commingled with the Chacra formation.

(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:

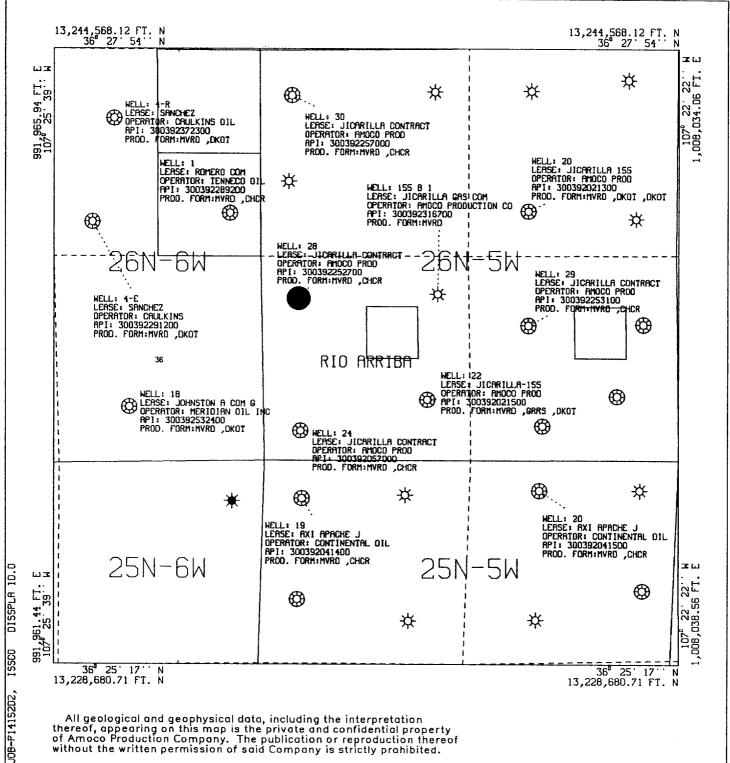
The BTU content of the produced streams are very similar and as such, we would expect the commingled production to have the same value as the sum of the individual streams.

(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:

The allocation method that we plan to use for this commingled well is as follows. Since these formations have been producing for some time, we have a good historical representation of the production by formation. Based on historical production we recommend that the allocation for gas production be 78% from the Mesaverde formation and 22% from the Chacra formation. The Chacra has historically produced a very small amount of liquids in this well. Based on that fact, we propose to allocate 99% of the liquid production to the Mesaverde formation and 1% of liquid production to the Chacra. 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.

(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.



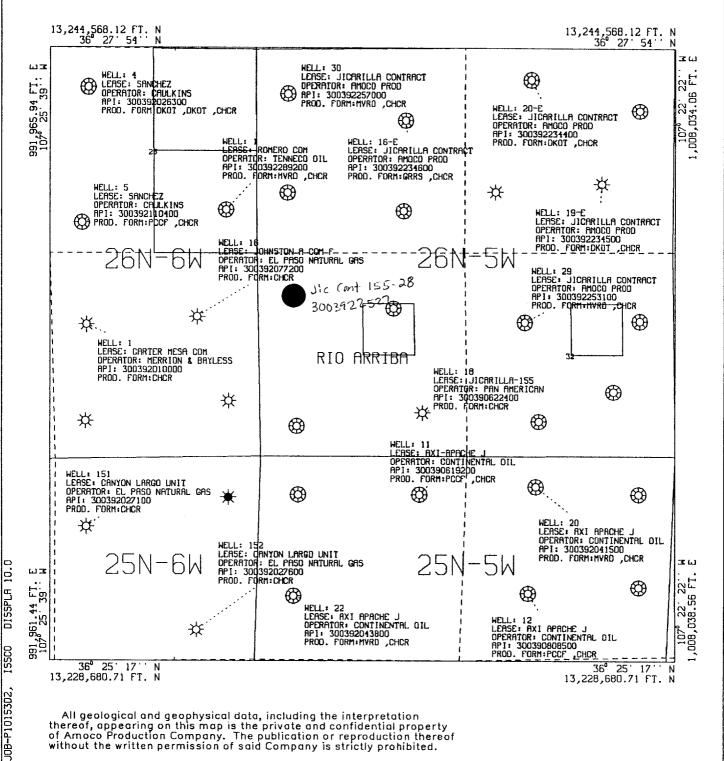
All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

3 NOV, 1995

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AMOCO PRODUCTION COMPANY PLAT MAP Jicarilla Contract 155-28 Sec 31-T26N-R05W ΜV Rio Arriba New Mexico SCALE 1 IN. = 2,500 FT. NOV 3, 1995



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.

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PLOT

AMOCO PRODUCTION COMPANY PLAT MAP Jicarilla Contract 155-28 Sec 31-T26N-R05W CK Rio Arriba New Mexico SCALE 1 IN. = 2,500 FT. NOV 4,

STATE DÉ NEW MEXICO JERGY AIO MINERALS DEPARTMENT

$c \gtrsim \text{conservation division}$

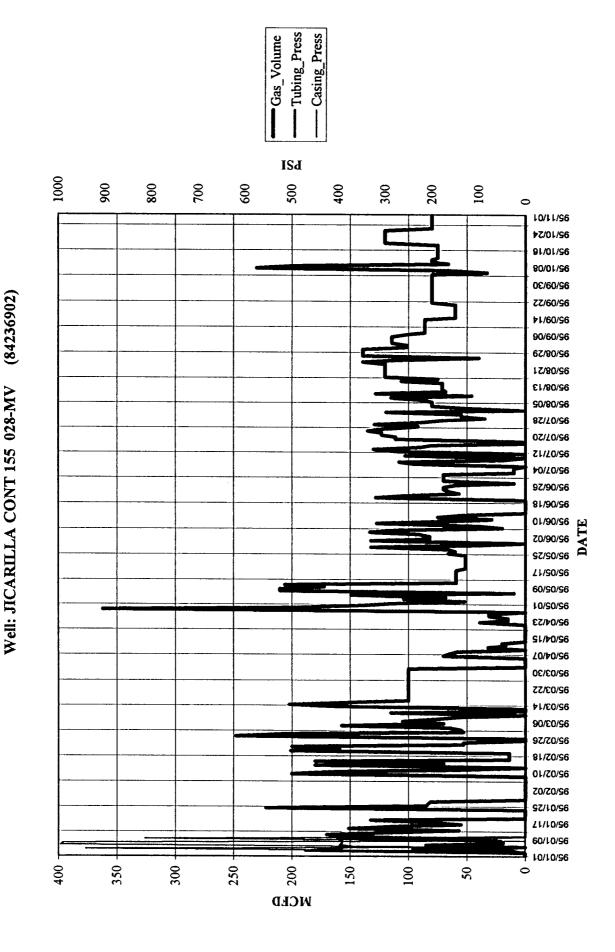
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SANTA FE, NEW MEXICO 87501

Form C-107 Revised 10-1-7

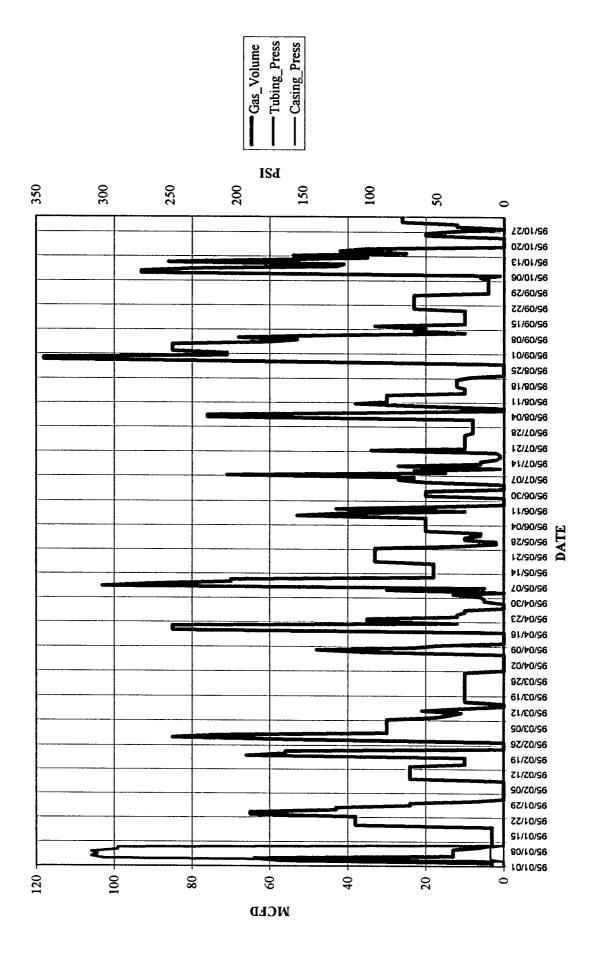
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Unit Letter	Section	Township	Ra	Range County				
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Well: JICARILLA CONT 155 028-CK (84236901)



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OIL CONSERVATION DIVISION

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OFFSET OPERATORS AND LIST OF ADDRESSES

Jicarilla 155 #28 Well

CHACRA OFFSET OPERATORS

NE SEC 31-T26N-R5W - AMOCO PRODUCTION COMPANY SE SEC 31-T26N-R5W - AMOCO PRODUCTION COMPANY SW SEC 31-T26N-R5W - AMOCO PRODUCTION COMPANY NE SEC 36-T26N-R6W - MERIDIAN OIL, INC. SE SEC 36-T26N-R6W - MERIDIAN OIL, INC. SE SEC 25-T26N-R6W - AMOCO PRODUCTION COMPANY SE SEC 30-T26N-R5W - AMOCO PRODUCTION COMPANY SW SEC 30-T26N-R5W - AMOCO PRODUCTION COMPANY

MESAVERDE OFFSET OPERATORS

NE SEC 31-T26N-R5W - AMOCO PRODUCTION COMPANY SE SEC 31-T26N-R5W - AMOCO PRODUCTION COMPANY SW SEC 31-T26N-R5W - AMOCO PRODUCTION COMPANY NE SEC 36-T26N-R6W - NO MESAVERDE WELL SE SEC 36-T26N-R6W - NO MESAVERDE WELL SE SEC 25-T26N-R6W - AMOCO PRODUCTION COMPANY SE SEC 30-T26N-R5W - AMOCO PRODUCTION COMPANY SW SEC 30-T26N-R5W - AMOCO PRODUCTION COMPANY

ADDRESSES

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