

ENRON
Northern Natural Gas Company

2223 Dodge Street Omaha, Nebraska 68102 (402) 633-4000

July 20, 1990

Mr. Rick Brown
Energy & Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Rick:

Enclosed are amended and manual C-111 reports for two Amoco DHC wells:

Owen B #2 DHC #410 Station # 531014


Amended allocation reports from October, 1983, thru June, 1990. A manual C-111 reporting the production as prescribed in the order will be reported monthly beginning with July, 1990, production. The automatic reporting will be discontinued with July, 1990, production.

State C Tract 12 No. 6Y DHC #661 Station # 531025

Amended C-111's for February, 1990, thru May, 1990. Manual C-111 for July, 1989, thru January, 1990. The automatic reporting on this well has been discontinued effective with June, 1990, production. A manual C-111 reporting the production as prescribed in the order has begun with June, 1990, production.

If further information is needed, please contact me at 402-633-6565.

Sincerely,


Sandy Olofson
Senior Contract Administrator

Enclosures

cc: N. Wood
E. Downs, NMOCD, Hobbs
C. Alvis
C. Brooks
P. Hill, Amoco



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

GARREY CARRUTHERS
GOVERNOR

July 9, 1990

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

Northern Natural Gas Company
2223 Dodge Street, 8th Floor
Omaha, Nebraska 68102

Attn: Sandy Olofson

Re: Improper reporting of gas production on Form C-111
Amoco Production Company
Owen "B" #2-L Sec. 34, T21S, R37E
Tubb and Drinkard Pools -- Downhole Commingled

Dear Mrs. Olofson:

I have received from Phillip Hill with Amoco Production Company a breakdown of the month-by-month corrected figures for the above-referenced downhole commingled well, and am forwarding them to you in hopes that you will be able to file corrected C-111's for this well as soon as possible.

The well is currently approaching it's six-times over produced limit and will have to be shutin if this improper allocation of production is not corrected.

Your prompt attention to this matter will be greatly appreciated.

Very truly yours,

OIL CONSERVATION DIVISION

Jerry Sexton
Supervisor, District I

ed

cc: Phillip Hill
Amoco Production Co.
P.O. Box 3092
Houston, TX 77253



Amoco Production Company

501 WestLake Park Boulevard
Post Office Box 3092
Houston, Texas 77253

July 2, 1990

New Mexico Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

Attention: Jerry Sexton

File: WDF-6440-941

Owen "B" #2 (DHC)
Unit L, Sec. 34, T-21s, R-37e, Lea County, NM
Tubb and Drinkard Pools
C-111 Misallocation

The Owen "B" #2 well was downhole commingled October 1983.
The allocation of gas, as set by the NMOCD, for the two
formations is:

73% Tubb Oil and Gas Pool
27% Drinkard

Northern Natural Gas has been the transporter for Owen "B" #2
since October 1983. An examination of Amoco Production Co.
and NMOCD records show that, of the gas transported, Northern
Natural Gas allocates 100% of the volume to the Tubb Oil and
Gas Pool. This misallocation has contributed to the
overproduction of the referenced well.

Amoco Production Co. has examined historical production and
allocation records of the Owen "B" #2 for the period January
1988 to April 1990. Overproduction attributed to the well
during this 28 month period accounts for 64,745 mcf.

Enclosed are the monthly allocations for the Tubb Oil and Gas
Pool and Drinkard according to Amoco and NMOCD records. The
purpose of supplying this information is to aid Northern
Natural Gas in the filing of corrected C-111's.

If you have any questions concerning this matter please
contact Phillip Hill at (713) 596-7614.

Yours very truly,

W. D. Fisher
Administrative Services Manager

Enclosure
PWH

ALLOCATION OF PRODUCTION
TUBB OIL AND GAS POOL 73%
DRINKARD 27%
PRODUCTION YEAR 1988

JANUARY 1988

REPORTED BY NNG: 16312 MCF TUBB
0 MCF DRINKARD

CORRECTED: 11908 MCF TUBB (73%)
4404 MCF DRINKARD (27%)

DIFFERENCE: 4404 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

FEBRUARY 1988

REPORTED BY NNG: 9355 MCF TUBB
0 MCF DRINKARD

CORRECTED: 6826 MCF TUBB (73%)
2526 MCF DRINKARD (27%)

DIFFERENCE: 2526 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

MARCH 1988

REPORTED BY NNG: 12689 MCF TUBB
0 MCF DRINKARD

CORRECTED: 9263 MCF TUBB
3426 MCF DRINKARD

DIFFERENCE: 3426 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

APRIL 1988

REPORTED BY NNG: 17643 MCF TUBB
0 MCF DRINKARD

CORRECTED: 12879 MCF TUBB (73%)
4764 MCF DRINKARD (27%)

DIFFERENCE: 4764 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

MAY 1988

REPORTED BY NNG: 7835 MCF TUBB
0 MCF DRINKARD

CORRECTED: 5720 MCF TUBB (73%)
2115 MCF DRINKARD (27%)

DIFFERENCE: 2115 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

JUNE 1988

REPORTED BY NNG: 1628 MCF TUBB
602 MCF DRINKARD

CORRECTED: O. K.

JULY 1988

REPORTED BY NNG: 19238 MCF TUBB
0 MCF DRINKARD

CORRECTED: 14044 MCF TUBB (73%)
5194 MCF DRINKARD (27%)

DIFFERENCE: 5194 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

AUGUST 1988

REPORTED BY NNG: 19339 MCF TUBB
0 MCF DRINKARD

CORRECTED: 14117 MCF TUBB (73%)
5222 MCF DRINKARD (27%)

DIFFERENCE: 5222 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

SEPTEMBER 1988

REPORTED BY NNG: 14459 MCF TUBB
0 MCF DRINKARD

CORRECTED: 10555 MCF TUBB (73%)
3904 MCF DRINKARD (27%)

DIFFERENCE: 3904 MCF OF OVERPRODUCTIO ALLOCATED TO THE TUBB

OCTOBER 1988

REPORTED BY NNG: 10017 MCF TUBB
0 MCF DRINKARD

CORRECTED: 7312 MCF TUBB (73%)
2705 MCF DRINKARD (27%)

DIFFERENCE: 2705 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

NOVEMBER AND DECEMBER 1988

REPORTED BY NNG: 0 MCF TUBB
0 MCF DRINKARD

CORRECTED: THIS WELL WAS SHUT IN DURING NOV AND DEC.

ALLOCATION OF PRODUCTION
TUBB OIL AND GAS POOL 73%
DRINKARD 27%
PRODUCTION YEAR 1989

JANUARY 1989

REPORTED BY NNG: 0 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 0 MCF TUBB (73%)
 0 MCF DRINKARD (27%)

DIFFERENCE: **SHUT IN.**

FEBRUARY 1989

REPORTED BY NNG: 3279 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 2394 MCF TUBB (73%)
 885 MCF DRINKARD (27%)

DIFFERENCE: **885 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB**

MARCH 1989

REPORTED BY NNG: 8516 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 6217 MCF TUBB
 2299 MCF DRINKARD

DIFFERENCE: **2299 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB**

APRIL 1989

REPORTED BY NNG: 8240 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 6015 MCF TUBB (73%)
 2225 MCF DRINKARD (27%)

DIFFERENCE: **2225 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB**

MAY 1989

REPORTED BY NNG: 0 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 0 MCF TUBB (73%)
 0 MCF DRINKARD (27%)

DIFFERENCE: **SHUT IN.**

JUNE 1989

REPORTED BY NNG: 0 MCF TUBB
 0 MCF DRINKARD

CORRECTED: SHUT IN.

JULY 1989

REPORTED BY NNG: 676 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 493 MCF TUBB (73%)
 183 MCF DRINKARD (27%)

DIFFERENCE: 183 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

AUGUST 1989

REPORTED BY NNG: 7883 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 5755 MCF TUBB (73%)
 2128 MCF DRINKARD (27%)

DIFFERENCE: 2128 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

SEPTEMBER 1989

REPORTED BY NNG: 6270 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 4577 MCF TUBB (73%)
 1693 MCF DRINKARD (27%)

DIFFERENCE: 1693 MCF OF OVERPRODUCTIO ALLOCATED TO THE TUBB

OCTOBER 1989

REPORTED BY NNG: 13171 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 9615 MCF TUBB (73%)
 3556 MCF DRINKARD (27%)

DIFFERENCE: 3556 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

NOVEMBER 1989

REPORTED BY NNG: 5205 MCF TUBB
 0 MCF DRINKARD

CORRECTED: 3800 MCF TUBB (73%)
 1405 MCF DRINKARD (27%)

DIFFERENCE: 1405 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

DECEMBER 1989

**REPORTED BY NNG: 13974 MCF TUBB
0 MCF DRINKARD**

**CORRECTED: 10201 MCF TUBB (73%)
3773 MCF DRINKARD (27%)**

DIFFERENCE: 3773 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

ALLOCATION OF PRODUCTION
TUBB OIL AND GAS POOL 73%
DRINKARD 27%
PRODUCTION YEAR 1990

JANUARY 1990

REPORTED BY NNG: 18067 MCF TUBB
0 MCF DRINKARD

CORRECTED: 13189 MCF TUBB (73%)
4878 MCF DRINKARD (27%)

DIFFERENCE: 4878 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

FEBRUARY 1990

REPORTED BY NNG: 16546 MCF TUBB
0 MCF DRINKARD

CORRECTED: 12079 MCF TUBB (73%)
4467 MCF DRINKARD (27%)

DIFFERENCE: 4467 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

MARCH 1990

REPORTED BY NNG: 640 MCF TUBB
143 MCF DRINKARD

CORRECTED:

DIFFERENCE: ALLOCATED CORRECTLY

APRIL 1990

REPORTED BY NNG: 11087 MCF TUBB
0 MCF DRINKARD

CORRECTED: 8094 MCF TUBB (73%)
2993 MCF DRINKARD (27%)

DIFFERENCE: 2993 MCF OF OVERPRODUCTION ALLOCATED TO THE TUBB

TOTAL MISALLOCATED PRODUCTION TO THE TUBB FORMATION FOR THE
PERIOD JANUARY 1988 TO APRIL 1990: **64745 MCF**



Amoco Production Company

501 WestLake Park Boulevard
Post Office Box 3092
Houston, Texas 77253

April 16, 1990

NMOCD
P. O. Box 1980
Hobbs, NM 88240

Attention: Jerry Sexton

File: WDF-2990-941

Owen "B" #2 (DHC)
Unit L, Sec. 34, T-21S, R-37E, Lea County, NM
Tubb and Drinkard Pools
C-111 Misallocation

Attached is the information concerning the Owen "B" #2 (DHC) well which has been sent to Sandy Olofson at Northern Natural Gas and Rick Brown at the NMOCD in Santa Fe. The information was sent to correct the present misallocation of the well production and to relieve part of the over-production presently attributed to the well.

Sandy Olofson with Northern Natural Gas has stated that she will file corrected C-111's for the period of October 1983 to the present. This action should bring some relief to the present over-production.

If you have any questions concerning this matter, please contact Phillip Hill at (713) 596-7614.

Yours very truly,

W. D. Fisher
Administrative Services Manager

PWH

Enclosures

CC: Evelyn Downs-Hobbs NMOCD



Amoco Production Company

501 WestLake Park Boulevard
Post Office Box 3092
Houston, Texas 77253

April 9, 1990

NMOCD
310 Old Santa Fe Trail
Room 206
Santa Fe, NM 87503

Attention: Rick Brown

File: WDF-2978-941

Owen "B" #2 (DHC)
Unit L, Sec. 34, T-21s, R-37E, Lea County, NM
Tubb and Drinkard Pools
C-111 Misallocation

The Owen "B" #2 well was downhole commingled October 1983.
The allocation of gas, as set by the NMOCD, for the two
formations is:

73% Tubb Oil and Gas Pool

27% Drinkard

Northern Natural Gas has been the transporter for Owen "B" #2
since October 1983. An examination of Amoco Production Co.
and NMOCD records show that, of the gas transported, Northern
Natural Gas allocates 100% of the volume to the Tubb Oil and
Gas Pool. This misallocation has contributed to the
overproduction of the referenced well.

The NMOCD (Hobbs) and Amoco Production Co. have requested
historical correction of the misallocated production.
Corrected C-111's for the period of October 1983 to the
present should be filed by Northern in the near future. This
correction will reduce present overproduction.

Enclosed is a copy of the information sent to Northern
Natural Gas. If you have any questions concerning this
matter please contact Phillip Hill at (713) 596-7614.

Yours very truly,

W. D. Fisher
Administrative Services Manager

Enclosure
PWH



Amoco Production Company

501 WestLake Park Boulevard
Post Office Box 3092
Houston, Texas 77253

March 30, 1990

Northern Natural Gas
2223 Dodge Street
Omaha, NE 68102

Attention: Sandy Olofson

File: WDF-2969-941

Dear Ms. Olofson:

Owen "B" #2
C-111 Allocation

Enclosed is the information concerning the Owen "B" #2 downhole commingling. According to the NMOCD the volume of gas transported should be allocated:

73% Tubb Oil and Gas Pool

27% Drinkard

According to the NMOCD and Amoco records Northern Natural Gas allocates 100% to the Tubb Oil and Gas Pool.

The NMOCD has requested historical correction of the misallocated production. Corrected C-111's for the period October 1983 to present should be filed with the NMOCD in Hobbs and to the attention of Rick Brown, NMOCD, Santa Fe.

We appreciate your cooperation in this matter and hope that the allocation will be corrected in the future.

If you have any questions please contact Phillip W. Hill at (713)596-7614.

Yours very truly,

W. D. Fisher
Administrative Services Manager



STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

July 19, 1983

TONY ANAYA
GOVERNOR

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JUL 21 1983

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41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

DHC-410

Administrative Order No. DHC-410

FILE

Administrative Order No. DHC-410

Amoco Production Company
P.O. Box 68
Hobbs, NM 88240

Attention: S. J. Okerson

Re: Owen B. No. 2, Unit 1, Sec. 34,
T-21S, R-37E, Lea County, NM,
Tubb and Drinkard Pools

Gentlemen:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations for the subject dually completed well to permit the removal of the down-hole separation equipment and to commingle the production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and (Division Order No. (DC-36 Form C-107, dated December 21, 1953), which authorized the dual completion and required separation of the two zones, is hereby placed in abeyance.


In accordance with the provisions of Rule 303.C.4., total commingled oil production from the subject well shall not exceed 40 barrels per day, and total water production from the well shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by multiplying 2,000 by top unit allowable for the Tubb Oil and Gas Pool.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Tubb Oil and Gas Pool:	Oil 58 % , Gas 73 %
Drinkard Pool:	Oil 42 % , Gas 27 %

Pursuant to Rule 303-C 5, the commingled authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Very truly yours,



JOE D. RAMEY,
Division Director

File

September 1, 1983

File: SJO-993xWF-1683

Re: ~~Owen "B" No. 2~~
Contract #84,901
Unit L, Section 34, T-21-S, R-37-E
Lea County, New Mexico

Northern Natural Gas Company
P. O. Box 2300
Midland, TX 79701

Gentlemen:

The referenced well was reclassified as a gas well in the Tubb Pool effective 1-1-83. This office was not aware of the reclassification until April, 1983 at which time the well was shut-in pending assignment of the gas allowable.

The Owen "B" No. 2 - Tubb Pool has not been issued a gas allowable by the NMOCD and should not be produced until an allowable is issued. For your information, we have received approval from the NMOCD to downhole commingle this well in the Tubb and Drinkard Pools. Operations will commence in the near future.

Yours very truly,

Original Signed by
S. J.

cc: Bobby Baker
Amoco Production
Eunice

Carl Odom
Northern Natural Gas Co.
Star Rt. A Box 338
Hobbs, NM 88240

LRB/ksm
APRD01-Q

June 15, 1983

File: SJO-1052-WF

Re: Application to Downhole Commingle
Owen B No. 2
Drinkard and Tubb Oil & Gas Pools
Lea County, New Mexico

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

Attention: Mr. Joe D. Ramey

Gentlemen:

Approval is hereby requested to downhole commingle the Owen B No. 2 in accordance with NMOCD Rule 303-C.

The well is located 1980' FSL x 440' FWL, Section 34, Township 21 South, Range 37 East, Lea County, New Mexico. The well was originally completed in the Grayburg Formation as an oil well on June 25, 1939. Amoco recompleted this well to a Drinkard completion on March 24, 1947. The Drinkard was dually completed with the Tubb Gas on March 18, 1954 as a flowing gas-oil well. Reference Dual Completion Order No. DC-36, dated December 21, 1953 (copy attached). Currently, the Tubb is flowing and the Drinkard has been temporarily abandoned since August 16, 1976. Due to the marginal production of these two zones, commingling is the only economical way of producing this well. Attached is a map showing the subject well and the offset operators.

In support of our request, we submit the following facts:

1. The latest productivity tests are as follows:

	<u>Date</u>	<u>BOPD</u>	<u>BWPD</u>	<u>MCFD</u>	<u>Perforations</u>
Tubb	5-16-83	2	3	305	6070'-6344'
*Drinkard	6-25-76	5	11	300	6382'-6582'

Copies of C-116's are attached.

*Last test taken before zone was temporarily abandoned August 16, 1976.

2. Neither zone produces more water than the combined oil limit determined by Rule 303-C.
3. The produced fluids should be compatible and commingling these fluids should not result in precipitates which might damage the reservoirs.
4. Commingling the Tubb and Drinkard will not jeopardize the efficiency of future secondary recovery operations in either zone.
5. We do not anticipate a significant change in the value of the commingled gas streams. Current gas prices being received are \$1.03/MCF for Drinkard gas and \$1.01/MCF for Tubb gas.
6. Expected daily production from the commingled zones are as follows:

	<u>Tubb</u>	<u>Drinkard</u>	<u>Commingled</u>
BOPD	2	3	5
BWPD	3	1	4
MCFD	620	470	1,090

See attached production decline curves.

7. Bottom hole pressures are as follows:
All pressures corrected to common datum 6,250'.

Tubb
Pressure at 6,000' = 431.0 psi
Pressure 6,000'-6,250' @ (.102 psi/ft) gradient = 25.5 psi
Total pressure at 6,250' = 456.5 psi

Drinkard
Pressure at 6,000' = 311.0 psi
Pressure 6,000'-6,250' @ (.021 psi/ft) gradient = 5.3 psi
Total pressure at 6,250' = 316.3 psi

June 15, 1983
File: SJO-1052-WF
Page 3

* Owen B No. 3 (Drinkard) was used due to Owen B No. 2 (Drinkard) being temporarily abandoned since August of 1976.

**Copies of BHP tests are attached.

8. Both zones to be commingled have common ownership.
9. Recommended oil and gas allotments are as follows: Based on Reserves

	<u>Oil</u>	<u>Gas</u>
Tubb	58%	73%
Drinkard	42%	27%

10. All offset operators have been notified by certified mail. (Copy of receipts and list of offset operators attached.)
11. Also attached, please find a copy of Administrative Order No. DHC-31 granting downhole commingling of the closely located State "C" Tract 13 No. 9 Tubb and Drinkard Pools.

If additional information is required, contact Charles Herring at 393-1781.

Yours very truly,

Original Signed By

S. J. OKERSON 

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

bcc: R. E. Ogden ACT Rm. 21.150
Houston, TX

Jim Allen ACL Rm. 4.548
Proration Department
Houston, TX

CMH/jbh
APERMI-LL