

ENGP706T--ENGP706-01
RUN-TIME: 11:22:28

GAS PROPRATION SCHEDULE
SOUTHEAST, NEW MEXICO

APR-SEP, 1991

RUN-DATE 05/20/91
PAGE: 22

POOL/OPERATOR/LEASE/WELL
NUM U SE TWM RAN STA TRANS
BER L CT SHP GE, TUS

ACREAGE

AF

DELIVER OCT-DEC 90
TEST AVG MD SALES

O/P
LIM

MAR 91
O/U

MAR 91
OLD O/P

MONTHLY
ALLOWABLE

CATCLAM DRAW MORROW (PRORATED GAS)

BARBARA FASKEN

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TEXACO INC.

E. J. LEVERS FEDERAL NCT-1

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PRELIMINARY ALLOWABLE ESTIMATES
MARKET DEMAND AND ALLOWABLE DETERMINATION SCHEDULE
FOR OCT 91 THRU MAR 92
PRORATED GAS POOLS - SOUTHEAST NEW MEXICO

	ATOKA PENN	BLINEBRY	BUFFALO	BURTON FLAT	CARLSBAD	CATLAN	EUMONT	INDIAN BASIN	INDIAN BASIN	JALPAT	JUSTIS BL	TUBB
	VALLEY PENN	MORROW	MORROW	DRAM	MORROW	UPPER PENN						
(1) AVERAGE MONTHLY POOL SALES OCT 90-MAR 91 ALL VOLS ARE IN MCF	113,412	409,780	203,184	424,022	221,417	136,500	2,315,225	204,393	3,372,080	905,099	39,437	213,916
(2) TOTAL NOMINATIONS AVERAGE MONTHLY VOLUMES												
(3) ADJUSTMENTS	27,000	73,000			72,000	14,000	96,253	27,000	188,000	340,391	6,000	60,000
(4) MONTHLY POOL ALLOWABLE OCT 91-MAR 92 (LINE 1 + LINE 3)	140,402	482,780	203,184	424,022	293,417	150,500	2,411,478	231,393	3,560,080	1,243,490	45,437	273,916
(5) MONTHLY MARGINAL POOL ALLOWABLE FOR OCT 91-MAR 92	30,622	160,459	118,747	183,646	213,958	92,289	1,373,502	73,247	2,342,065	842,890	14,065	162,954
(6) MONTHLY NON-MARGINAL POOL ALLOWABLE OCT 91-MAR 92 (LINE 4 MINUS LINE 5)	109,780	322,321	84,437	240,376	79,459	58,211	1,037,976	154,146	1,018,015	402,600	31,372	110,962
(7) NUMBER OF NON-MARGINAL ACREAGE FACTORS	3.42	10.75	2.00	6.88	3.97	2.00	56.72	0.86	5.49	22.00	9.00	11.00
(8) MONTHLY ACREAGE ALLOCATION FACTOR OCT 91-MAR 92 F1 (LINE 6 DIVIDED BY LINE 7)	32,099	22,985	42,219	34,938	20,015	29,106	18,300	181,565	185,431	18,300	3,486	10,087

OCT 91-MAR 92 F1 FACTORS FOR OTHER POOLS
BURTON FLAT STRAWN F1=10,000
MONUMENT MCKEE ELLEN F1=25,000

Before the
OIL CONSERVATION COMMISSION
SALT LAKE CITY, NEW MEXICO
Case No. 10377 Exhibit No. 3
Submitted by: Haywood
Hearing Date: Rehearing

Exhibit "A"
Case No. 10377
Order No. R-9586

ENG216A1-ENG216A-01
RUN-TIME: 08:13:57

MARKET DEMAND AND ALLOWABLE DETERMINATION SCHEDULE
PROPORTED GAS POOLS - SOUTHEAST NEW MEXICO
FOR OCT 91 THRU MAR 92

RUN-DATE 09/09/91

	ATOKA PENN	BLINEBRY	BUFFALO	BURTON FLAT	CARLSBAD	CATELAN DRAM	EUPHORI	INDIAN BASIN	INDIAN BASIN	UPPER PENN	JUSTIS GL	TURB
	VALLEY PENN	MORROM	MORROM	MORROM	MORROM	MORROM	MORROM	MORROM	MORROM	MORROM	MORROM	MORROM
(1) AVERAGE MONTHLY POOL SALES OCT90-MAR91 ALL VOLUME ARE IN MCF.	113,401	414,669	214,667	436,754	237,631	146,818 189,546	2,218,783	196,828	3,229,032	884,356	39,436	231,773
(2) TOTAL MONTHLY AVERAGE MONTH VOL.	21,768					407,167	131,173	3,600,000	126,500	22,669		9,112
(3) ADJUSTMENTS.	27,000	152,320			56,000	95,470	204,616	4,000	320,000	319,475	6,000	35,000
(4) MONTHLY POOL ALLOWABLE OCT91-MAR92 (LINE 1 + LINE 3.)	140,401	566,989	214,667	436,754	293,631	242,288 285,016	2,423,399	200,828	3,557,032	1,203,831	45,436	266,773
(5) MONTHLY MARGINAL POOL ALLOWABLE OCT91-MAR92	32,121	157,145	110,757	103,645	213,958	92,287 202,182	1,385,423	75,247	2,542,064	801,231	14,064	154,974
(6) MONTHLY NON-MARGINAL POOL ALLOWABLES OCT91-MAR92 LINE 4 - LINE 5	108,280	409,844	95,910	253,109	79,673	150,000 243,158	1,037,976	125,581	1,014,968	402,600	31,372	111,799
(7) MARGINAL NON-MARGINAL AVERAGE FACTORS	3.42	10.75	2.00	6.88	3.97	4.00	56.72	.86	5.49	22.00	9.00	11.00
(8) MONTHLY AVERAGE ALLOCABLE FACTOR OCT91-MAR92 (LIN 6 / LIN 7)	11,660	38,125	47,955	36,789	20,068	75,000	18,300	146,024	104,875	18,300	3,485	10,163

F1 FACTORS FOR OTHER POOLS
BURTON FLAT STRAIN F1 = 10,000
MORRIS MOORE ELLEN F1 = 25,000

Before the
OIL CONSERVATION COMMISSION
State of New Mexico
Case No. 10377 Exhibit No. 4
Submitted By: CHAIWIC
Hearing Date: _____

RUN-DATE 10/04/91
PAGE: 22

OCT-MAR, 1992

GAS PRORATION SCHEDULE
SOUTHEAST NEW MEXICO

MAR 91 MONTHLY
OLD O/P ALLOWABLE

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CATCLAW DRAW MORROW (PRORATED GAS)				
BARBARA FASKEN				
AVALON FEDERAL COM				685
1 I P 1 21S 25E M		267.55	.84	
INEXCO 17 FEDERAL COM				
1 K 17 21S 26E M		640.00	1.00	3,684
				4,369
OPERATOR TOTALS***				

STATE OF NEW MEXICO

Oil Conservation Division

*November 14, 1991 Rehearing
for
Prorated Gas Allowables For
October 1991 - March 1992
for
Catclaw Draw (Morrow) Field*

Summary Comments and Exhibits

by

Hallwood Petroleum, Inc.

1

Before the
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. _____ Exhibit No. 6
Submitted By: Hallwood PET
Hearing Date: 11/14/91

CATCLAW DRAW UNIT #9
Proration Unit
Catclaw Draw (Morrow) Field

Assumptions: 1) "Shadow Allowable" of 22,117 MCF/Mo
May-Sept, 1991
2) Current O/P (Overproduction) Limit = 222,888
MCF

<u>Month</u>	<u>MCF, Sold</u>	<u>Shadow Allowable or F1</u>	<u>Monthly* O/U Status</u>	<u>Cumulative Overproduction Status</u>
May, 91	12,492	22,117	9,625	0
June, 91	98,995	22,117	-76,878	-67,253
July, 91	129,509	22,117	-107,392	-174,645
Aug, 91	152,542	22,117	-130,425	-305,070
Sept, 91	132,185	22,117	-110,068	-415,138
Oct, 91	67,236 (est)	75,000	7,764	-407,374

***NOTE:** Minus (-) sign is overproduction

Conclusion: Current O/P limit of 222,888 MCF was used up in August, as a result of producing the well at rates necessary to determine if the well's sustainable deliverability was valid, reserves could be supported and well would not decline rapidly. O/P limit will increase April 1, 1992 to at least 450,000 MCF, based on current F1 of 75,000 MCF/month.

CATCLAW DRAW UNIT #9 Catclaw Draw (Morrow) Field

Response(s) to portions of Item 10 of OCD Case No. 10377, Order No. R-9586 dated October 3, 1991.

Statement #1

"An F1 of 75,000 (2.46 MMCF per day) together with the overproduction limit (222,888 MCF) should provide sufficient opportunity for operators to produce their non-marginal wells."

- **The order appears to have been issued on a two-part basis, whereby the intent was to allow the O/P limit (a minimum 222,888 MCF or 1.22 MMCFD average for Oct - March 1992) to act as a vehicle to produce at rates of approximately 3.68 MMCFD (2.46 MMCFD + 1.22 MMCFD).**
- **The cumulative O/P status was not calculated when the October order was issued and the opportunity for overproducing does not exist currently without a higher F1 factor.**
- **A higher F1 would not be "excessive" at this time as the capacity to produce the additional gas exists, our purchaser (Gas Company of New Mexico) has expressed a definite desire and need to purchase this in-state gas, correlative rights will be protected and offset operators in Catclaw Draw (Morrow) Field have expressed their support, not objection, to raising allowables.**

CATCLAW DRAW UNIT #9

Catclaw Draw (Morrow) Field

Statement #2

"The Producing capacity of Well No. 9 may be expected to decline over the next few months."

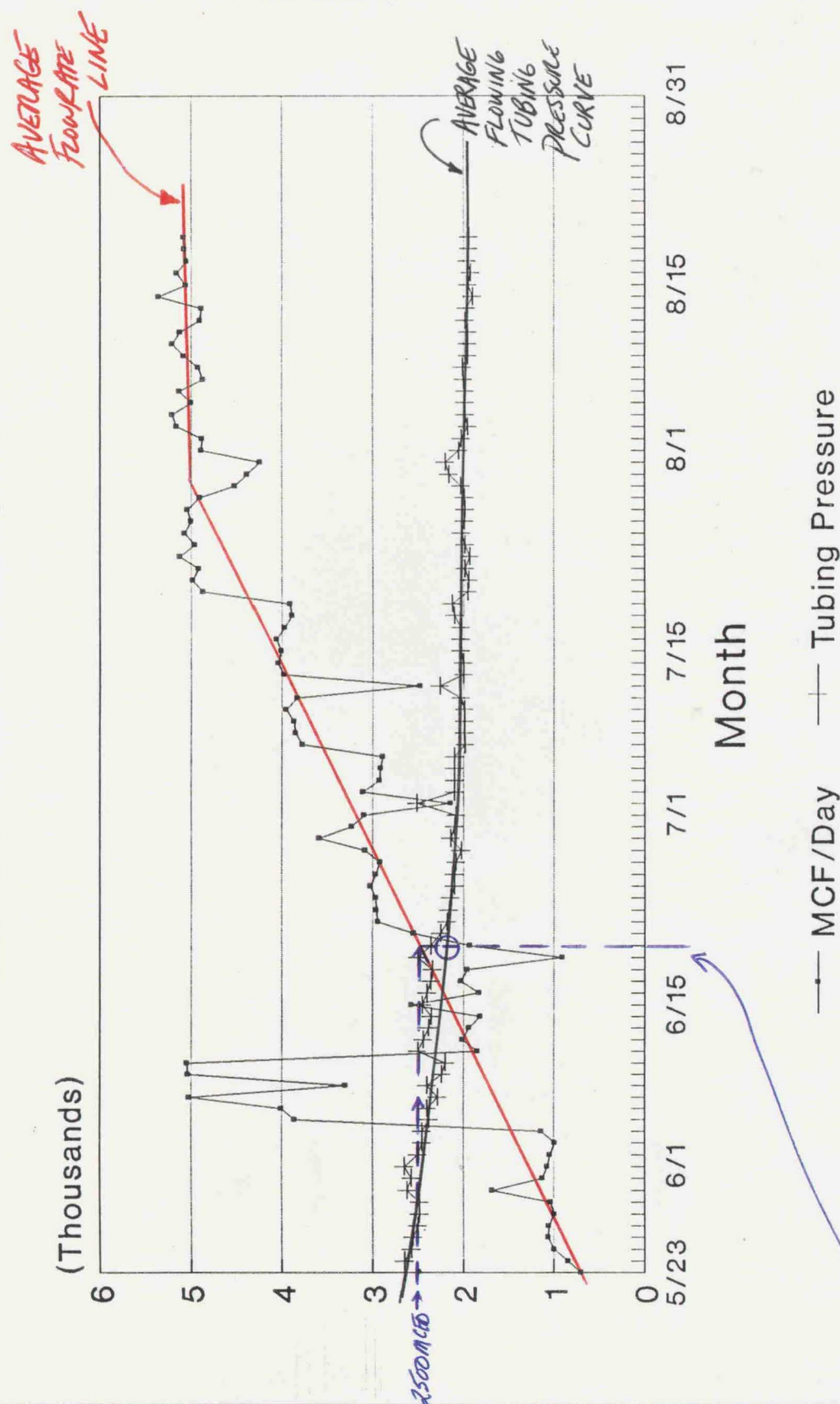
- **Producing data to date (flowrates and pressures) have shown little if any indication of a decline over the next few months. The well appears to be a very strong well with substantial gas reserves and therefore a longevity measured in terms of years not months (see attached plot).**
- **In previous meeting and discussions with OCD personnel about the new allowable and gas nominations process, statements were made pertaining to the "new emphasis on utilizing good operator provided nomination volumes to accurately allow (or assist) the OCD in establishing allowables". Hallwood contends that if this process is to work as requested, the F1 (allowable) should be set at or near our original request. When the well or fields' ability to produce declines, we will adjust our nominations accordingly.**

Statement #3

"Allowables will by definition restrict production from the highest capacity wells."

- **This is not necessarily true, and in fact has not been the case in certain fields such as our analysis of the Indian Basin (Morrow) Field on the following pages.**

CDU #9-Post Recompletion Production Catclaw Draw (Morrow) Field



→ FROM THIS PLOT 2500 MCFD WAS AVERAGING 2200-2250 #FTP. ACTUAL POINT ON 6/21/91 WAS 2546 MCFD AT 2250 #FTP. CURRENTLY THE WELL IS AVERAGING 2500 MCFD AT 2100 #FTP, WHICH REPRESENTS A 6.6% PRESSURE DECREASE AFTER PRODUCING NEARLY 600 MMCF (0.66 BCF).

COMPARISON OF INDIAN BASIN (MORROW) FIELD With Catclaw Draw (Morrow) Field

- Indian Basin (Morrow) Field is 10-12 miles west of Catclaw Draw (Morrow) Field and consists of 11 wells, 5 different operators and 1 non-marginal unit versus 19 wells, 4 operators and 2 non-marginal units for Catclaw Draw.
- Marathon Oil Co. completed their North Indian Basin Unit #8 well in June, 1990 with an AOF of 14,888 MCFD and gas sales averaged 148,108 MCF per month (4,872 MCFD) for the last 6 months of 1990.
- Allowables which were averaging 52,475 MCF/Mo. (1,762 MCFD), prior to the new Marathon well, increased to over 200,000 MCF/Mo. in January, 1991 and leveled out at a respectable 109,267 MCF/Mo. (F1) or nearly 3,600 MCFD for the April-Sept., 1991 period.
- The allowable increases resulted from overproduction of the new well, not a proactive request by the operator. In the March 22, 1991 Case No. 10254, Order No. R-9463, three fields were singled out to increase allowables; Atoka-Penn, Indian Basin-Morrow and Indian Basin-Penn for the following explanation:

"The higher allowables are based on increasing pool sales, nominations, and recent producing rates for non-marginal wells."
- The top allowable for the current proration period (October, 1991-March, 1991) increased another 33.6% to an F1 of 146,024 MCF/Mo. (4,803 MCFD), for a field that has 1 non-marginal well (acreage factor = 0.86) and production that has averaged only 65,706 MCF/Mo. (2,161 MCFD) for April-June, 1991.

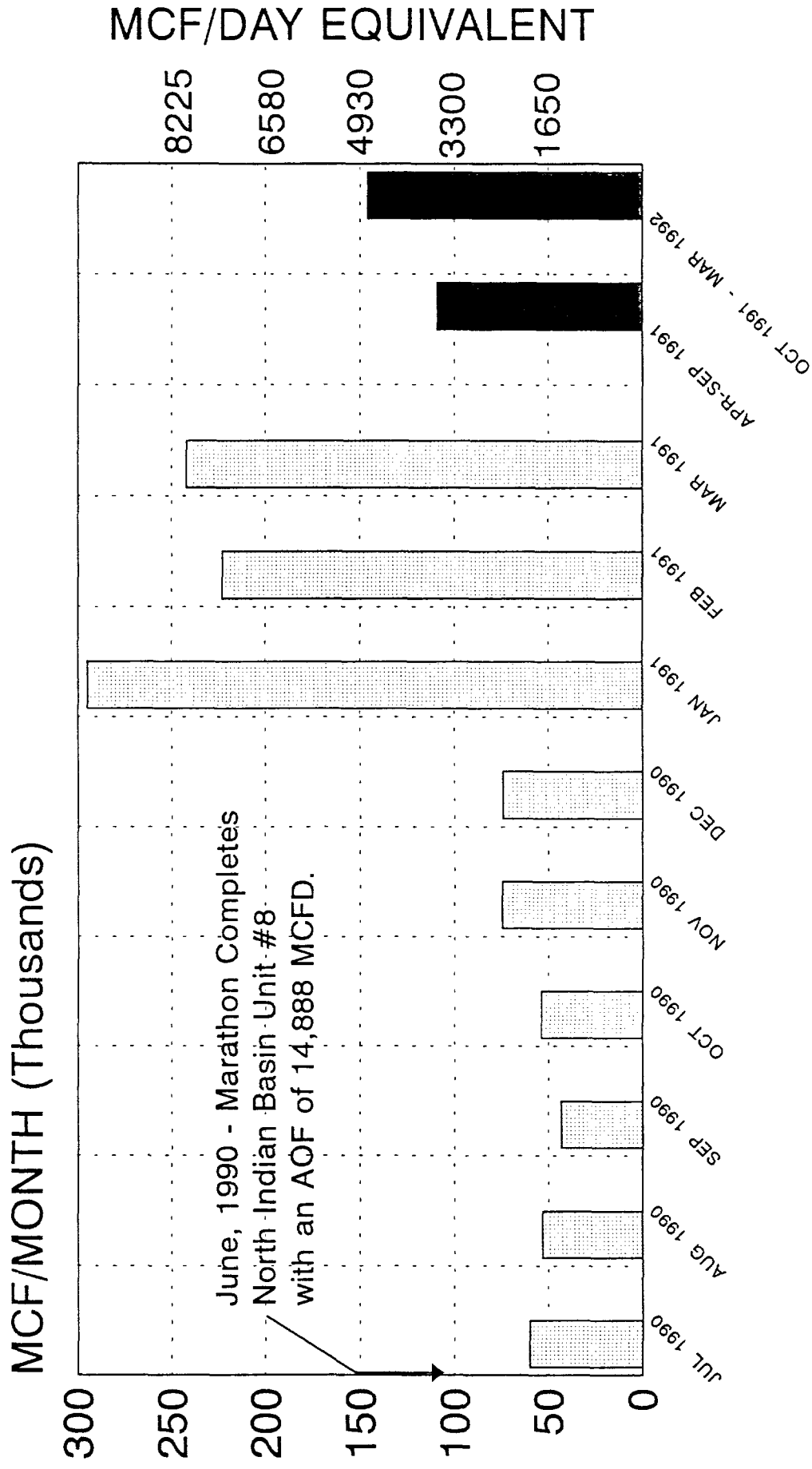
CONCLUSIONS:

- 1) Recent allowables for the Indian Basin (Morrow) Field have not restricted production from the highest capacity wells.
- 2) Non-marginal unit allowables have increased 178% in just over a year.
- 3) The above scenario seems to encourage or promote overproducing as a method to raise allowables, rather than cooperatively working with the OCD to raise allowables.

INDIAN BASIN (MORROW) FIELD

EDDY COUNTY, NEW MEXICO

TOP ALLOWABLE* VS. TIME



*TOP ALLOWABLE FOR A NON-MARGINAL WELL NORMALIZED TO A 1.0 ACREAGE FACTOR.

**RECOMMENDATIONS FOR
CATCLAW DRAW (MORROW) FIELD
REVISED ALLOWABLES**

- 1) Increase O/P limit to a minimum of 450,000 MCF effective October 1, 1991.

- 2) Increase F1 factor to at least 140,000 MCF/Month effective October 1, 1991.

GAS COMPANY OF NEW MEXICO

October 15, 1991

EM Nominee Partnership Company
4582 South Ulster Street Parkway
Sanford Place III, Suite 1700
P. O. Box 378111
Denver, CO 80237

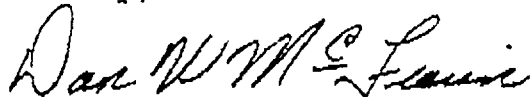
RE: Effects of a 1991 Six-Month Winter Allocation to Gas Company -
of New Mexico of 75,000 Mcf in the Catclaw Draw Morrow.

Dear Mr. Gregory:

Gas Company of New Mexico has a contract with EM Nominee to purchase up to 15,000 MMBTU a day of gas produced from their wells in the Catclaw Draw Morrow Field and Pool. The allowables that have been set by the Oil Conservation Division (OCD) for the 1991-1992 winter allocation period will not be adequate to prevent their Catclaw Draw Unit #9 from becoming shut-in for overproduction.

Without production from this well, EM Nominee will be unable to meet the 15,000 MMBtu a day volume. The loss of this supply may result in the need for Gas Company to purchase gas from off-system suppliers. This gas will be priced significantly higher and could come from out-of-state sources. This would negatively affect New Mexico's rate payers and the State Treasury.

Sincerely,



Dan W. McFearin
Manager, Supply Planning

DMF:lt

cc: Lindsay McMurray
File

Nominee.PDM

EXHIBIT "C"

Before the
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 10377 Exhibit No. 7
Submitted By: HALWOOD
Hearing Date: _____

I. WHAT IS TOTAL POOL (FIELD) DELIVERABILITY?

- THIS IS SIMPLY THE SUM OF THE MARGINAL WELLS PRODUCTION (WHICH ARE ESSENTIALLY PRODUCING AT FULL CAPACITY) PLUS THE SUSTAINED DELIVERABILITY (OR REASONABLE CAPABILITY) OF THE 2 NON-MARGINAL UNITS.

TOTAL MARGINAL PRODUCTION: 203,182 - 226,164 MCF/MO.
2 NON-MARGINAL UNITS:
- CATCLAW DRAW #1Y & #13 - 42,560 MCF/MO.
- CATCLAW DRAW #9 - 152,000 MCF/MO.

TOTAL RANGE: 397,742 - 420,724 MCF/MO.

II. WHAT IS TOTAL POOL (FIELD) MARKET DEMAND?

- BASICALLY WHAT OTHER OPERATORS IN THE POOL (FIELD) CAN SELL PLUS WHAT HAILWOOD CAN SELL.

1- OTHER OPERATORS (3 OPERATORS, 5 WELLS, : 50,300 MCF/MO.
ALL OF WHICH ARE MARGINAL)

2- HAILWOOD CAN PRESENTLY SELL AT : 364,800 - 425,600 MCF/MO.
LEAST 12,000 - 13,000 MCFD

TOTAL RANGE: 415,100 - 475,900 MCF/MO.

NOTE: POOL (FIELD) DELIVERABILITY IS ESSENTIAL AT OR EQUAL TO MARKET DEMAND FOR CATCLAW DRAW AND CONSIDERABLY HIGHER (71% TO 96%) THAN THE OCD'S OCTOBER ASSIGNED POOL ALLOWABLE OF 242,288 MCF/MONTH

III. How to allocate this TOTAL MARKET DEMAND?

	<u>MCF/mo.</u>	
(4) MONTHLY POOL ALLOWABLE	445,500	(AVERAGE OF PREVIOUS PAGE RANGE)
(5) MONTHLY POOL MARGINAL	<u>- 214,673</u>	(AVERAGE OF PREVIOUS PAGE RANGE)
(6) MONTHLY POOL NON-MARGINAL ALLOWABLE	230,827	(AS COMPARED WITH 150,000 FROM OGD OCTOBER ORDER)
(7) NO. OF NON-MARGINAL UNITS	2.00	
(8) MONTHLY ACREAGE ALLOCATION FACTOR (F1)	115,414	(VERSUS 75,000 FROM OGD OCTOBER ORDER)
(9) AVERAGE DAILY RATE	3800 MCFD	(VERSUS 2460 MCFD)

Com Order 75,000 MCF6PD

IV. WHERE ARE THE BIG DIFFERENCES IN THE OCD'S AND HALLWOODS PROPOSED NUMBERS COMING FROM?

- ANSWER IS 2 AREAS - MARGINAL WELL PRODUCTION & MONTHLY POOL ALLOWABLE

A) MARGINAL WELL PRODUCTION: 214,673 (HALLWOOD AVE. ESTIMATE)
- 92,288 (OCD #)

122,385 ← 98%
↳ CONSISTS OF
CATCLAW #16 54,720 MCF
CATCLAW #17 30,000 MCF
CATCLAW #6 17,632 MCF
CATCLAW #14 x 2 18,000 MCF
TOTAL = 120,352 MCF/MO

B) MONTHLY POOL ALLOWABLE: 445,500 (HALLWOOD AVE. ESTIMATE)
- 242,288 (OCD #)

203,212 MCF/MO

- 54,720 (CATCLAW #16) } NEW RECOMPLETIONS
- 30,000 (CATCLAW #17) }
- 17,632 (CATCLAW #6) DATA (PROD.) MISSING

100,860 (3318 MCFD AVERAGE)

75% OF THIS NO. IS ADDITIONAL ALLOWABLE THAT COULD BE ASSIGNED TO THE CATCLAW #9 VIA A HIGHER F1