

BEFORE EXAMINER CATANACH

OIL CONSERVATION DIVISION

HARTMAN - STATE "A" COM

EXHIBIT NO. 18"Prevention of Waste - Drilling Unnecessary Wells"

Summary Table Remaining Reserve Comparisons

Conoco Meyer A-1 #3 and Hartman State "A" #4

(M-8-21S-36E)

(A-8-21S-36E)

CASE NO. 9994Conoco - Meyer A-1 #3 (M-8-21S-36E)

- Remaining gas reserves at time of abandonment
(11/85) based upon decline curve analogy
illustrating mechanical capabilities of well = 2,283 MMCF
- Remaining gas reserves at time of abandonment
(11/85) based upon p/z (material balance) analogy
illustrating reservoir capabilities of well = 2,053 MMCF
- Difference p/z method - decline curve method
2,053 MMCF - 2,283 MMCF = <230> MMCF

-Conclusion: At the time the Meyer A-1 #3 Eumont interval was abandoned (11/85) in favor of converting the well to a EMSU Producer (#335), the well had approximately 2.0 BCF of remaining gas reserves which could efficiently and effectively be produced by the existing wellbore. This is illustrated by the fact that the reserves derived by mechanical decline curve analysis and p/z analysis are approximately the same value.

Hartman - State "A" #4 (A-8-21S-36E)

- Remaining gas reserves as of 4-1-90 based
upon decline curve analogy illustrating
mechanical capabilities of well = 508 MMCF
- Remaining gas reserves as of 4-1-90 based upon
p/z (material balance) analogy illustrating
reservoir capabilities of well = 1,800 MMCF
- Difference p/z method - decline curve method
1,800 MMCF - 508 MMCF = 1,292 MMCF

-Conclusion: As of 4-1-90, the State "A" #1 has remaining recoverable
gas reserves of 508 MMCF which is limited by the mechanical abilities of
the well. However, the p/z analysis shows the gas remaining in the
reservoir encountered by the wellbore to be approximately 1,800 MMCF.
Therefore, 1,292 MMCF or approximately 1.3 BCF of gas reserves from the
State "A" #4 will not be recovered by the existing wellbore and
completion.

Chevron (25% WI), Conoco (25% WI), ARCO (25% WI), and Amoco (25% WI)
(The "NMFU" Group) elected in November, 1985 to cooperate and abandon

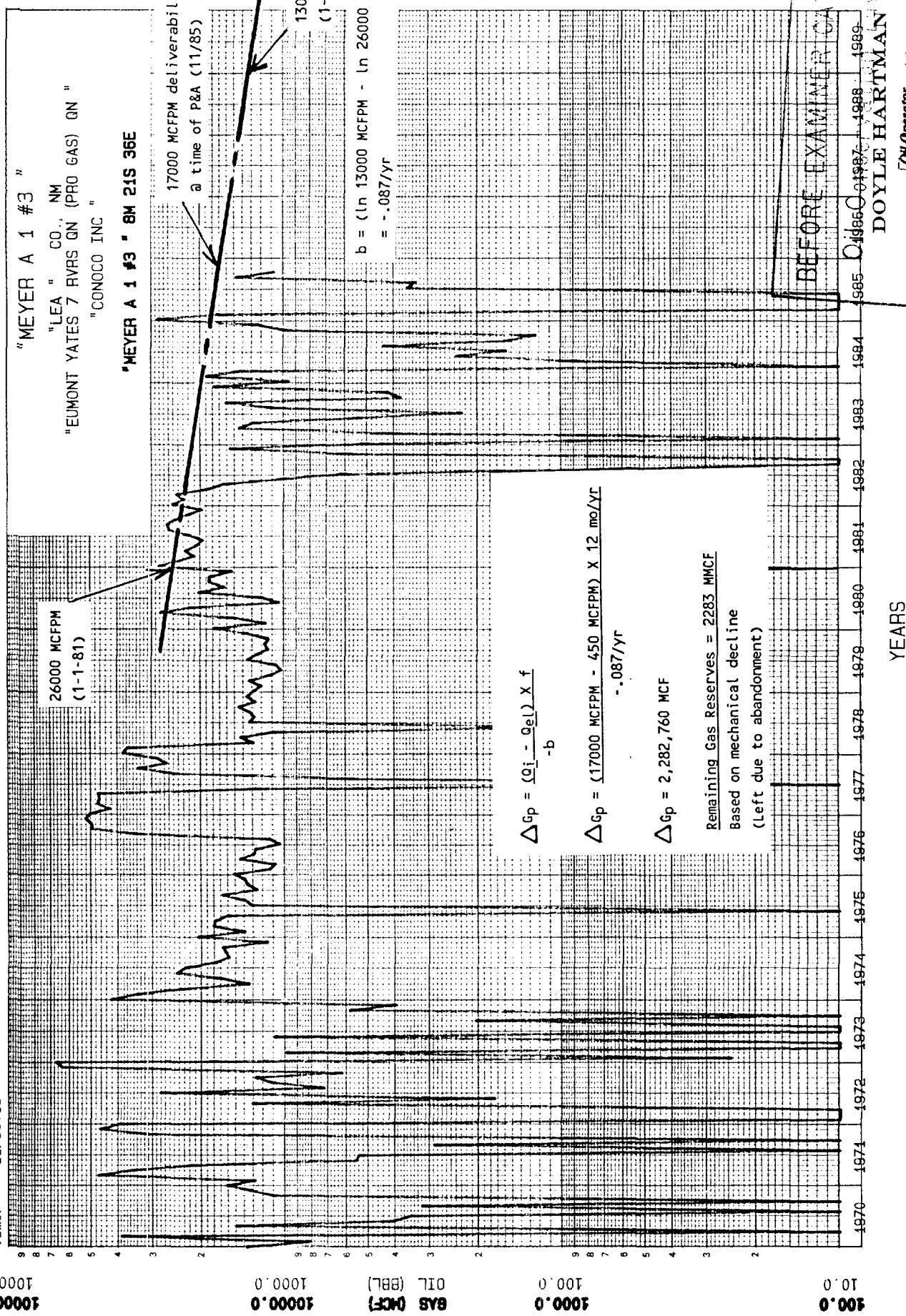
the Meyer A-1 #3 Eumont interval which was effectively and efficiently draining the reservoir in favor of converting the well to an EMSU Producer (#335). The Group then drilled and completed the Meyer A-1 #18, a replacement Eumont producer (K-8-21S-36E) on the same 160-acre P.U. originally dedicated to the Meyer A-1 #3, offsetting the Hartman (formerly Texaco) - State "A" #4.

In contrast it is evident that the Hartman - State "A" #4 will not efficiently and effectively drain the gas present in the reservoir encountered by the well due to the p/z reserves being much greater than those derived by mechanical decline curve analysis. Further, the drilling of the State "A" Com #5 infill Eumont well on the proposed 280-acre tract will recover incremental reserves previously unrecoverable by the existing State "A" #4 well and recover reserves underlying the undrilled and never dedicated N/2 SE/4 Section 5 80-acre State "A" tract.

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PRODUCTION

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Case No. — 9994

MEYER A 1 #3 000003

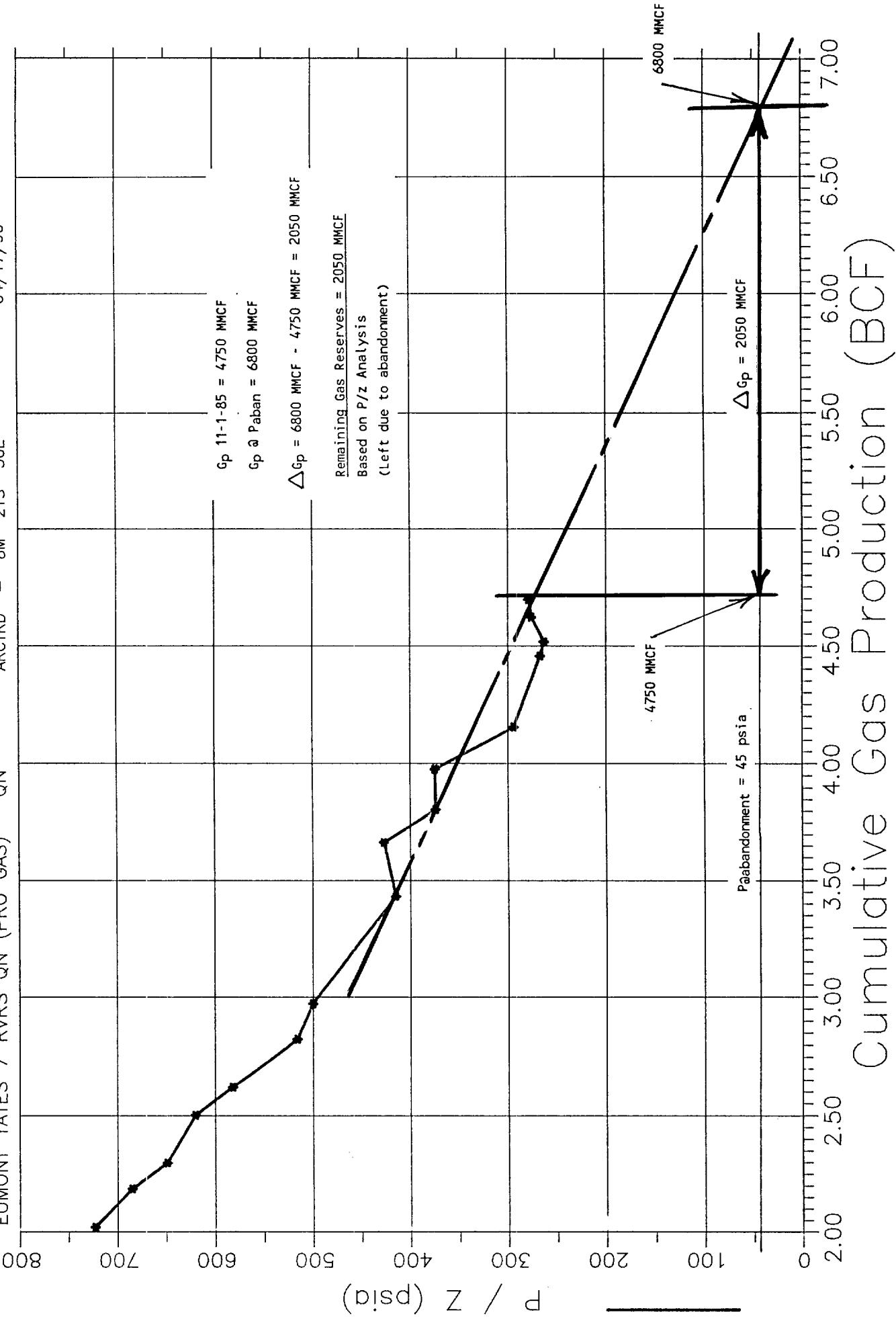
CONOCO INC
EUMONT YATES 7 RVRS QN (PRO GAS) QN
ARCTR'D - 8M 21S 36E

FIRST DATA POINT = 11/06/70

LAST DATA POINT = 05/21/85

CUM GAS = 4.728 BCF THROUGH 85/10

04/17/90



T-21 R-34 SEC 5-10

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
***** 1978 *****													
FLOW	1	1	1	1	1	1	1	1	1	1	1	1	1
LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL	36,402	35,030	12,416	13,768	10,531	965	12,822	12,341	12,813	13,984	12,210	13,105	186,389
GAS	3,591,629	3,624,659	3,637,077	3,652,845	3,663,376	3,664,341	3,677,163	3,689,504	3,702,317	3,716,301	3,728,511	3,741,616	3,741,616
CURG	1979 *****	1	1	1	1	1	1	1	1	1	1	1	1
FLOW	0	0	0	0	0	0	0	0	0	0	0	0	0
LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL	12,438	11,576	12,806	10,774	9,843	10,272	12,953	12,058	10,967	11,275	10,949	12,982	11,550
GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
CURG	3,754,054	3,765,630	3,776,438	3,785,210	3,799,053	3,808,325	3,822,278	3,834,336	3,845,303	3,856,578	3,867,527	3,880,599	3,880,599
***** 1980 *****													
FLOW	1	1	1	1	1	1	1	1	1	1	1	1	1
LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL	17,169	11,206	14,684	26,710	20,847	10,021	11,590	19,483	15,678	17,844	17,840	14,791	133
GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
CURG	3,887,678	3,908,884	3,925,588	3,950,278	3,971,125	3,981,146	3,992,736	4,012,219	4,027,897	4,045,741	4,063,581	4,078,372	4,078,372
***** 1981 *****													
FLOW	1	1	1	1	1	1	1	1	1	1	1	1	1
LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER	1,116	1,404	1,674	1,620	1,323	1,620	0	0	0	0	0	0	0
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	26,987	23,227	20,118	21,804	19,725	18,792	20,941	24,769	25,202	23,680	21,291	18,874	265,701
CURG	133	289	289	289	289	289	289	289	289	289	289	289	289
***** 1982 *****													
FLOW	1	1	1	1	1	1	1	1	1	1	1	1	1
LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER	31	28	31	30	28	23	23	23	23	23	23	23	23
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	24,149	21,884	23,387	18,141	15,832	9,836	6,000	570	570	570	570	570	570
CURG	4,105,359	4,128,686	4,148,804	4,170,608	4,190,533	4,208,325	4,230,286	4,255,046	4,280,246	4,303,908	4,325,199	4,344,073	4,344,073
***** 1982 *****													
FLOW	1	1	1	1	1	1	1	1	1	1	1	1	1
LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	24,289	289	289	289	289	289	289	289	289	289	289	289	289
CURG	4,368,222	4,396,106	4,415,473	4,431,634	4,447,166	4,457,302	4,463,302	4,463,872	4,463,872	4,463,872	4,463,872	4,463,872	4,464,520
***** 1983 *****													
FLOW	1	0	1	1	1	1	1	1	1	1	1	1	1
LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER	7	5	20	22	8	3	8	20	8	5	31	137	0
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	5,071	5,942	11,903	12,431	5,280	2,218	10,558	15,480	3,683	4,168	17,085	93,777	
CURG	4,489,571	4,493,571	4,507,456	4,519,087	4,525,167	4,527,385	4,537,941	4,553,421	4,557,104	4,561,212	4,578,297	4,578,297	4,578,297
***** 1984 *****													
FLOW	1	1	1	1	1	1	1	1	1	1	1	1	1
LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	9,210	18,240	15,705	289	0	859	2,229	1,541	4,257	1,209	9,554	11,902	74,355
CURG	4,587,507	4,619,477	4,619,472	4,619,472	4,620,311	4,622,640	4,624,481	4,628,480	4,629,957	4,631,166	4,640,720	4,652,622	4,652,622
***** 1985 *****													
FLOW	1	1	0	0	0	0	0	0	1	1	1	1	1
LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
WATER	22	21	0	0	1	0	0	0	0	0	0	0	0
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
CURG	27,313	16,332	0	0	0	0	0	0	0	0	0	0	0
CURG	4,679,935	4,696,567	4,696,567	4,696,567	4,696,567	4,696,567	4,700,055	4,703,233	4,717,185	4,727,886	4,727,886	4,727,886	4,727,886

FRUIT: LUNA BUNK

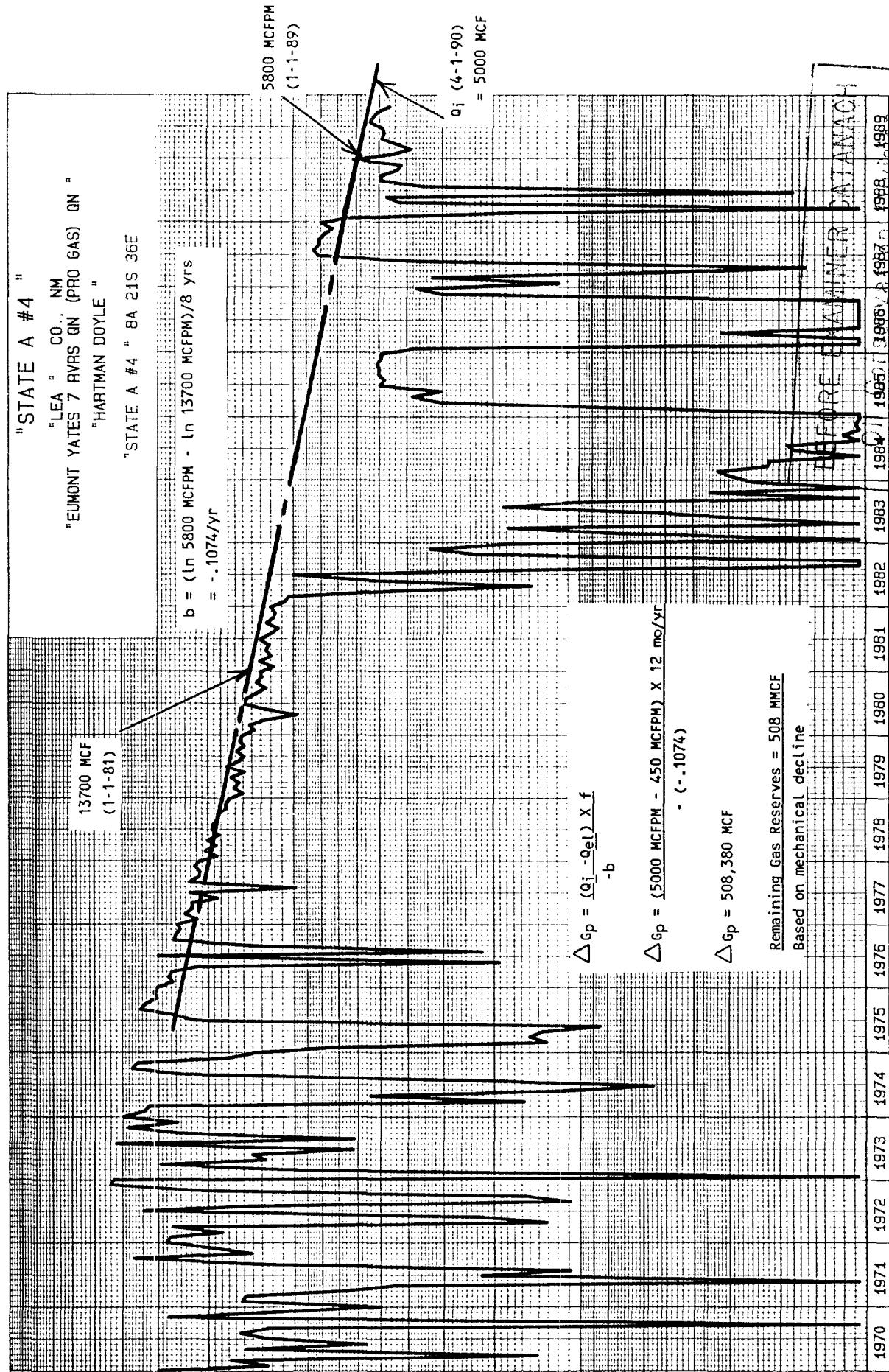
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TEST	73/04/04
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TEST	77/04/26
TEST	78/04/20
TEST	80/04/10
TEST	81/04/07
TEST	82/05/22
TEST	83/05/23
TEST	84/05/21
TEST	85/05/21

909-2	EAC108
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Date: 04/17/90
Time: 16.02.55

PRODUCTION

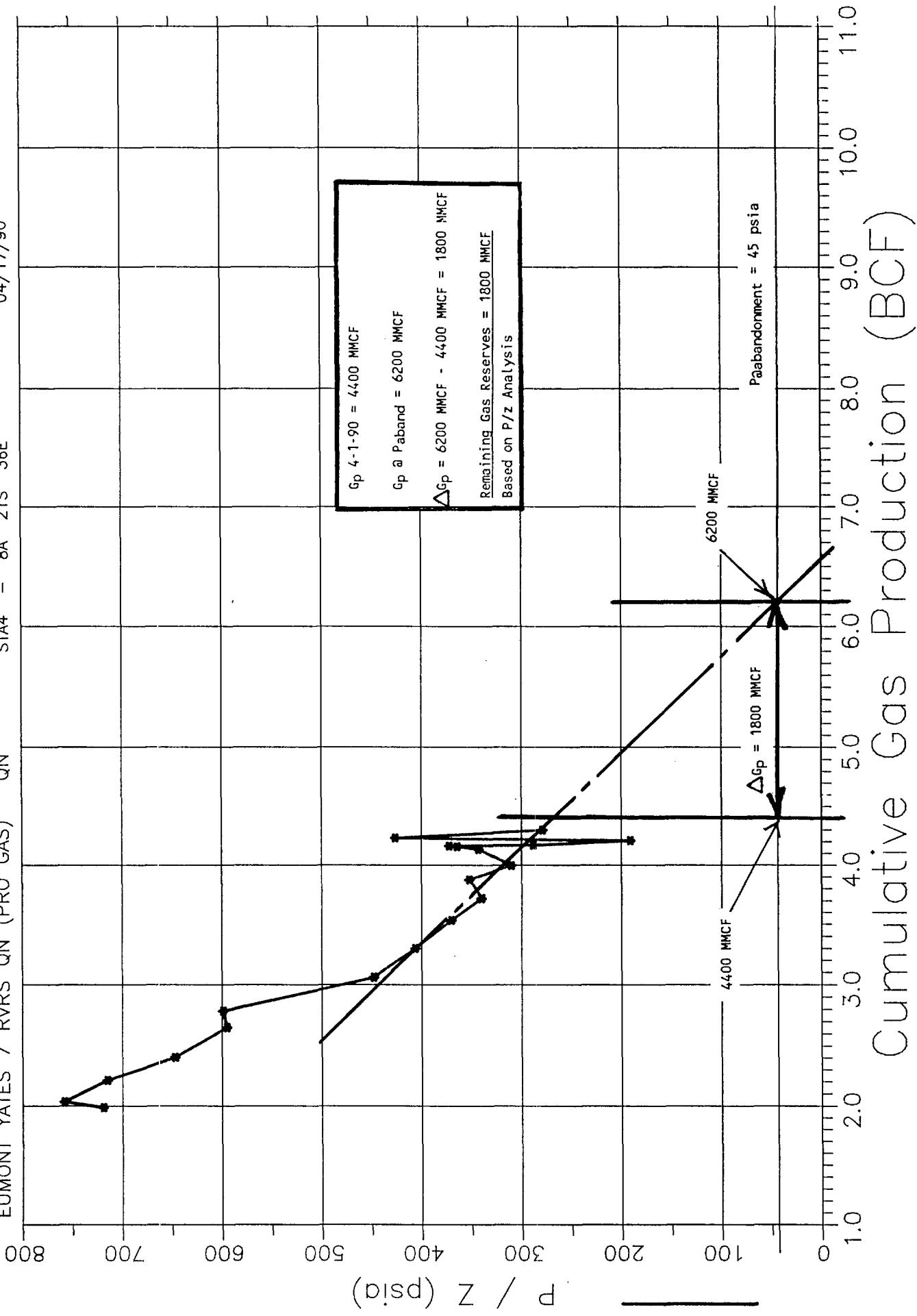
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Case No. 9994
Exhibit of Operator

STATE A #4 0000004

HARTMAN DOYLE
EUMONT YATES 7 RVRS QN (PRO GAS) QN
STA4 - 8A 21S 36E
FIRST DATA POINT = 12/10/70
LAST DATA POINT = 09/23/88
CUM GAS = 4.363 BCF THROUGH 89/11
04/17/90



WIGGS DATA DETAIL LISTING BY WELL

		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
*****	1978 ****	FLOW	1	1	1	1	1	1	1	1	1	1	1	1
	LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
	WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
	OL	19,818	17,163	18,859	17,337	16,567	16,893	17,905	17,802	17,117	17,113	15,997	16,012	210,395
	GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CUNG	3,445,164	3,462,327	3,481,196	3,498,533	3,517,100	3,533,295	3,551,500	3,569,702	3,586,619	3,603,932	3,619,929	3,635,941	3,635,941
*****	1979 ****	FLOW	1	1	1	1	1	1	1	1	1	1	1	1
	LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
	WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
	OL	15,472	13,937	15,631	14,425	15,403	13,765	15,968	14,450	13,787	14,712	13,849	14,350	175,111
	GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CUNG	3,651,453	3,665,372	3,680,423	3,694,848	3,710,251	3,724,016	3,735,924	3,754,374	3,768,161	3,782,870	3,796,722	3,811,052	3,811,052
*****	1980 ****	FLOW	1	1	1	1	1	1	1	1	1	1	1	1
	LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
	WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
	OL	13,967	12,700	13,214	11,588	9,036	11,480	13,702	13,590	12,468	11,643	12,547	12,041	147,457
	GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CUNG	3,825,019	3,837,719	3,850,933	3,862,521	3,871,557	3,883,017	3,896,719	3,910,309	3,922,776	3,934,421	3,946,988	3,959,009	3,959,009
*****	1981 ****	FLOW	1	1	1	1	1	1	1	1	1	1	1	1
	LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
	WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
	OL	12,065	10,871	12,212	11,084	11,638	11,345	12,220	11,156	10,506	11,581	10,581	10,771	134,350
	GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CUNG	3,971,924	3,981,965	3,994,177	4,005,261	4,016,899	4,028,244	4,040,464	4,051,620	4,062,126	4,073,707	4,084,588	4,095,359	4,095,359
*****	1982 ****	FLOW	1	1	1	1	1	1	1	1	1	1	1	1
	LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
	WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
	OL	11,029	9,627	4,353	1,380	4,926	9,341	1,799	0	0	0	0	0	0
	GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CUNG	4,105,594	4,116,623	4,126,250	4,130,603	4,131,983	4,136,907	4,146,250	4,146,049	4,148,120	4,150,250	4,153,352	4,153,352	
*****	1983 ****	FLOW	1	1	1	1	1	1	1	1	1	1	1	1
	LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
	WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
	OL	11,235	10,029	9,627	4,353	1,380	4,926	9,341	1,799	0	0	0	0	0
	GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CUNG	4,105,594	4,116,623	4,126,250	4,130,603	4,131,983	4,136,907	4,146,250	4,146,049	4,148,120	4,150,250	4,153,352	4,153,352	
*****	1984 ****	FLOW	1	1	1	1	1	1	1	1	1	1	1	1
	LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
	WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
	OL	1,645	0	0	0	0	0	0	0	0	0	0	0	0
	GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CUNG	4,155,007	4,155,007	4,155,664	4,157,322	4,157,567	4,158,086	4,159,320	4,160,782	4,161,112	4,161,195	4,161,195	4,161,195	
*****	1984 ****	FLOW	1	1	1	1	1	1	1	1	1	1	1	1
	LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
	WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
	OL	231	275	309	204	24	167	178	66	114	97	103	1,988	1,988
	GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CUNG	4,161,026	4,161,701	4,162,010	4,162,218	4,162,422	4,162,623	4,162,801	4,162,869	4,163,983	4,163,980	4,163,983	4,163,983	
*****	1985 ****	FLOW	1	0	1	1	1	1	1	1	1	1	1	1
	LIFT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
	WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
	OL	27	29	31	30	28	0	0	0	0	0	0	0	0
	GAS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CUNG	4,163,827	4,163,210	4,166,675	4,170,255	4,173,108	4,177,742	4,182,224	4,186,927	4,191,592	4,196,356	4,200,760	4,200,760	

PAGE 2
RUN DATE - 4/17/90
TIME - /
USER/WS - /
MENU/OPTION - /
PROGRAM - MARS105

EIGRITS DATA DETAIL LISTING BY WELL

PAGE - 3

RUN DATE - 4/17/90

TIME - /

USER/AS - /

MERG/OPTION - /

PROG/LIBRARY - /

PROGRAM - TMRG105

		FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
*****	1986 *****	1	1	1	1	1	1	1	1	1	1	1	1
FLOW	LIFT	0	0	0	0	0	0	0	0	0	0	0	0
DAYS	31	28	0	0	0	0	0	0	0	0	0	0	64
WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	4,580	3,453	0	0	0	0	0	0	0	0	0	0	0
DONG	4,305,540	4,208,998	4,208,998	4,208,998	4,209,297	4,209,297	4,209,297	4,209,297	4,209,297	4,209,297	4,209,297	4,209,297	4,212,116
*****	1987 *****	1	1	1	1	1	1	1	1	1	1	1	1
FLOW	LIFT	0	0	0	0	0	0	0	0	0	0	0	0
DAYS	16	8	18	1	6	12	25	31	30	31	30	31	239
WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	3,456	1,114	3,035	0	511	154	3,381	7,579	7,938	7,556	7,228	6,797	56,308
DONG	4,215,572	4,216,686	4,219,721	4,220,232	4,220,386	4,223,767	4,231,746	4,239,384	4,246,843	4,254,399	4,263,627	4,268,424	4,268,424
*****	1988 *****	1	1	0	1	1	1	1	1	1	1	1	1
FLOW	LIFT	0	0	0	0	0	0	0	0	0	0	0	0
DAYS	29	29	8	0	24	29	1	19	28	31	30	31	259
WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	7,455	6,022	1,616	0	3,982	4,406	170	3,258	4,592	4,608	4,037	3,999	44,051
DONG	4,275,679	4,281,901	4,283,517	4,283,517	4,287,499	4,291,899	4,292,069	4,295,327	4,299,921	4,304,529	4,308,566	4,312,475	4,312,475
*****	1989 *****	1	1	1	1	1	1	1	1	1	1	1	1
FLOW	LIFT	0	0	0	0	0	0	0	0	0	0	0	0
DAYS	26	24	29	31	30	31	31	31	31	30	31	30	321
WATER	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS	5,750	4,234	3,626	4,051	4,570	4,491	4,567	5,044	4,907	4,718	4,322	50,270	50,270
DONG	4,318,225	4,322,459	4,326,065	4,330,158	4,334,766	4,339,197	4,343,754	4,348,798	4,353,705	4,358,423	4,362,745	4,362,745	4,362,745
TEST	70/12/10	598	598	598	646	646	719	719	719	719	719	719	719
TEST	72/06/27	627	595	595	678	678	738	738	738	738	738	738	738
TEST	73/05/29	595	595	595	643	643	715	715	715	715	715	715	715
TEST	74/05/21	594	594	594	647	647	716	716	716	716	716	716	716
TEST	75/05/19	597	597	597	647	647	717	717	717	717	717	717	717
TEST	76/05/10	598	598	598	648	648	718	718	718	718	718	718	718
TEST	77/06/06	394	394	394	394	394	394	394	394	394	394	394	394
TEST	78/06/27	394	394	394	394	394	394	394	394	394	394	394	394
TEST	79/06/20	299	299	299	322	322	340	340	340	340	340	340	340
TEST	80/06/10	310	310	310	333	333	352	352	352	352	352	352	352
TEST	81/04/07	274	274	274	295	295	309	309	309	309	309	309	309
TEST	82/06/22	302	302	302	325	325	343	343	343	343	343	343	343
TEST	83/05/23	304	304	304	344	344	364	364	364	364	364	364	364
TEST	84/05/21	306	306	306	351	351	372	372	372	372	372	372	372
TEST	85/05/21	266	266	266	275	275	287	287	287	287	287	287	287
TEST	86/09/15	112	112	112	125	125	130	130	130	130	130	130	130
TEST	87/07/28	371	371	371	379	379	426	426	426	426	426	426	426
TEST	88/09/23	248	248	248	267	267	279	279	279	279	279	279	279

Report Totals

2,520,055-Gas

4,362,745-Gas Cume

0-Oil

0-Water

1,871-Days