Cs 8077

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87501

Side 1

APPLICATION FOR CLASSIFICATION AS HARDSHIP GAS WELL

Case 8228

Operator Doyle Hartman Contact Party Michelle Hembree

Address Post Office Box 10426, Midland, Tx 79702 Phone No. (915) 684-4011

Lease Langlie "A" State Well No. 3 UT I Sec. 36 TWP 24S RGE 36E

Pool Name Jalmat (Gas) Minimum Rate Requested 53 mcfpd

Transporter Name El Paso Natural Gas Co. Purchaser (if different) _____

Are you seeking emergency "hardship" classification for this well? xxx yes _____ no

Applicant must provide the following information to support his contention that the subject well qualifies as a hardship gas well.

1) Provide a statement of the problem that leads the applicant to believe that "underground waste" will occur if the subject well is shut-in or is curtailed below its ability to produce. (The definition of underground waste is shown on the reverse side of this form)

2) Document that you as applicant have done all you reasonably and economically can do to eliminate or prevent the problem(s) leading to this application.

   a) Well history. Explain fully all attempts made to rectify the problem. If no attempts have been made, explain reasons for failure to do so.

   b) Mechanical condition of the well(provide wellbore sketch). Explain fully mechanical attempts to rectify the problem, including but not limited to:

      i) the use of "smallbore" tubing; ii) other de-watering devices, such as plunger lift, rod pumping units, etc.

3) Present historical data which demonstrates conditions that can lead to waste. Such data should include:

   a) Permanent loss of productivity after shut-in periods (i.e., formation damage).

   b) Frequency of swabbing required after the well is shut-in or curtailed.

   c) Length of time swabbing is required to return well to production after being shut-in.

   d) Actual cost figures showing inability to continue operations without special relief

4) If failure to obtain a hardship gas well classification would result in premature abandonment, calculate the quantity of gas reserves which would be lost

5) Show the minimum sustainable producing rate of the subject well. This rate can be determined by:

   a) Minimum flow or "log off" test; and/or

   b) Documentation of well production history (producing rates and pressures, as well as gas/water ratio, both before and after shut-in periods due to the well dying, and other appropriate production data).

6) Attach a plat and/or map showing the proration unit dedicated to the well and the ownership of all offsetting acreage.

7) Submit any other appropriate data which will support the need for a hardship classification.

8) If the well is in a prorated pool, please show its current under- or over-produced status.

9) Attach a signed statement certifying that all information submitted with this application is true and correct to the best of your knowledge; that one copy of the application has been submitted to the appropriate Division district office (give the name) and that notice of the application has been given to the transporter/purchaser and all offset operators.

Backside of Form

GENERAL INFORMATION APPLICABLE TO HARDSHIP GAS WELL CLASSIFICATION

1) Definition of Underground Waste.

> "Underground Waste as those words are generally understood in the oil and gas business, and in any event to embrace the inefficient, excessive, or improper use or dissipation of the reservoir energy, including gas energy and water drive, of any pool, and the locating, spacing, drilling, equipping, operating, or producing, of any well or wells in a manner to reduce or tend to reduce the total quantity of crude petroleum oil or natural gas ultimately recovered from any pool, and the use of inefficient underground storage of natural gas."

2) The only acceptable basis for obtaining a "hardship" classification is prevention of waste with the burden of proof solely on the applicant. The applicant must not only prove waste will occur without the "hardship" classification, but also that he has acted in a responsible and prudent manner to minimize or eliminate the problem prior to requesting this special consideration. If the subject well is classified as a "hardship" well, it will be permitted to produce at a specified minimum sustainable rate without being subject to shut-in by the purchaser due to low demand. The Division can rescind approval at any time without notice and require the operator to show cause why the classification should not be permanently rescinded if abuse of this special classification becomes apparent.

3) The minimum rate will be the minimum sustainable rate at which the well will flow. If data from historical production is insufficient to support this rate (in the opinion of the Director), or if an offset operator or purchaser objects to the requested rate, a minimum flow ("log off") test may be required. The operator may, if he desires, conduct the minimum flow test, and submit this information with his application.

4) If a minimum flow test is to be run, either at the operator's option or at the request of the Division, the offset operators, any protesting party, the purchaser and OCD will be notified of the date of the test and given the opportunity to witness, if they so desire.

5) Any interested party may review the data submitted at either the Santa Fe office or the appropriate OCD District Office.

6) The Director can approve uncontested applications administratively if, in his opinion, sufficient justification is furnished. Notice shall be given of intent to approve by attaching such notice to the regular examiner's hearing docket. Within 20 days following the date of such hearing, the affected parties will be permitted to file an objection. If no objection has been filed, the application may be approved.

7) Should a protest be filed in writing, the applicant will be permitted to either withdraw the application, or request it to be set for hearing.

8) An emergency approval, on a temporary bases for a period not to exceed 90 days, may be granted by the District Supervisor, pending filing of formal application and final action of the OCD Director. This temporary approval may be granted only if the District Supervisor is convinced waste will occur without immediate relief. If granted, the District Supervisor will notify the purchaser.

9) After a well receives a "hardship" classification, it will be retained for a period of one year unless rescinded sooner by the Division. The applicant will be required to certify annually that conditions have not changed substantially in order to continue to retain this classification.

10) Nothing here withstanding, the Division may, on its own motion, require any and all operators to show cause why approval(s) should not be rescinded if abuse is suspected or market conditions substantially change in the State of New Mexico.

11) A well classified as a "hardship well" will continue to accumulate over and under production (prorated pools). Should allowables exceed the hardship allowable assigned, the well will be permitted to produce at the higher rate, if capable of doing so, and would be treated as any other non-hardship well. Any cumulative overproduction accrued either before or after being classified "hardship" must, however, be balanced before the well can be allowed to produce at the higher rate.

APPLICATION FOR CLASSIFICATION AS
HARDSHIP GAS WELL
Doyle Hartman-
Langlie A State No. 3
SE/4 NE/4 and NE/4 SE/4 Section 36
T-24-S, R-37-E
Lea County, New Mexico
Jalmat (Gas) Pool

1. Applicant expects that restriction of the gas production rate below a minimum of 53 mcf per day will result in "underground waste" (as defined by 1) GENERAL INFORMATION APPLICABLE TO HARDSHIP GAS WELL CLASSIFICATION). This expectation is based upon the observed fact that this well has produced from 40-60 bls of water per day since initial production (except for the months of October, November and December, 1983, upon which addition discussion will be subsequently provided). Unless sufficient gas production is allowed so that this water is removed from the wellbore, the water will accumulate inside the wellbore. Should the water so accumulate, water will eventually be forced into the lower pressured gas producing portions of the Upper Yates zone from the higher pressured water bearing portion(s) of this reservoir. Such water movement will result in loss of gas reserves due to reduction and/or elimination of permeability to gas in the gas bearing portions of the Upper Yates reservoir. In addition, physical alteration of the reservoir rock fabric may result from exposure to accumulated water, resulting in loss of gas reserves because of reduction or loss of absolute permeability to any fluid.

2. A. The problem of water production cannot be solved by completion practices, as there are intervals of limited thickness interspersed throughout the Yates completion interval that have high (51 percent to 68 percent) water saturations. Elimination of water production would, therefore, necessarily involve elimination of gas production as well.

   B. This well has a 228-D rod-pumping unit installed with a 1¼" pump. Stroke length is 86", and the well is pumped at 8 strokes per minute. Water is pumped from the tubing, while gas is produced from the casing-tubing annulus. It is impossible to pump the well effectively without producing a minimum volume of gas, because the annulus pressure will increase sufficiently to cause "gas locking" with attendent reduction in volumetric efficiency.

3. As illustrated by the attached production data graph, initial production of this well occured in April, 1983; during this period the water production has varied between 140 and 60 bbls per day (with consistent gas-water ratios between 0.11 bbls/mcf and 0.17

bbls/mcf) except for the months of October through December, 1983. For the period from October-December, 1983, the production performance statistics are as follows:

MONTH	mcf	mcf/d	bbl	bbl/day	bbl/mcf
October	10,618	356	1043	35	0.098
November	7,125	238	743	25	0.100
December	4,664	314	1096	74	0.230

This well performance indicates that water influx is relatively constant as compared to gas production; further, in order not to allow water to accumulate (with attendent risk of "underground waste"), at least 53 mcf/day must be produced. As approved waterhauling and disposal charges are $1.31 per bbl for the area of Lea County in which the Langlie "A" State No. 3 is located, water disposal charges alone (without regard to any other costs of operation) require gas production of from 15 to 23 mcf/day.

4. Failure to obtain a hardship well classification could result in substantial loss of gas reserves from the Langlie "A" State No. 3. This magnitude of the potential loss can be summarized as follows:

Estimated Original Gas-in-Place:
Between 675 and 1379 mmcf

Estimated Deliverability Projected Gas Recovery Factor, Fraction of Original Gas in Place:
0.8200

Estimated Ultimate Gas Recovery, mmcf:
Decline curve projection: 1131.0
Deliverability projection: 538.0 to 664.0

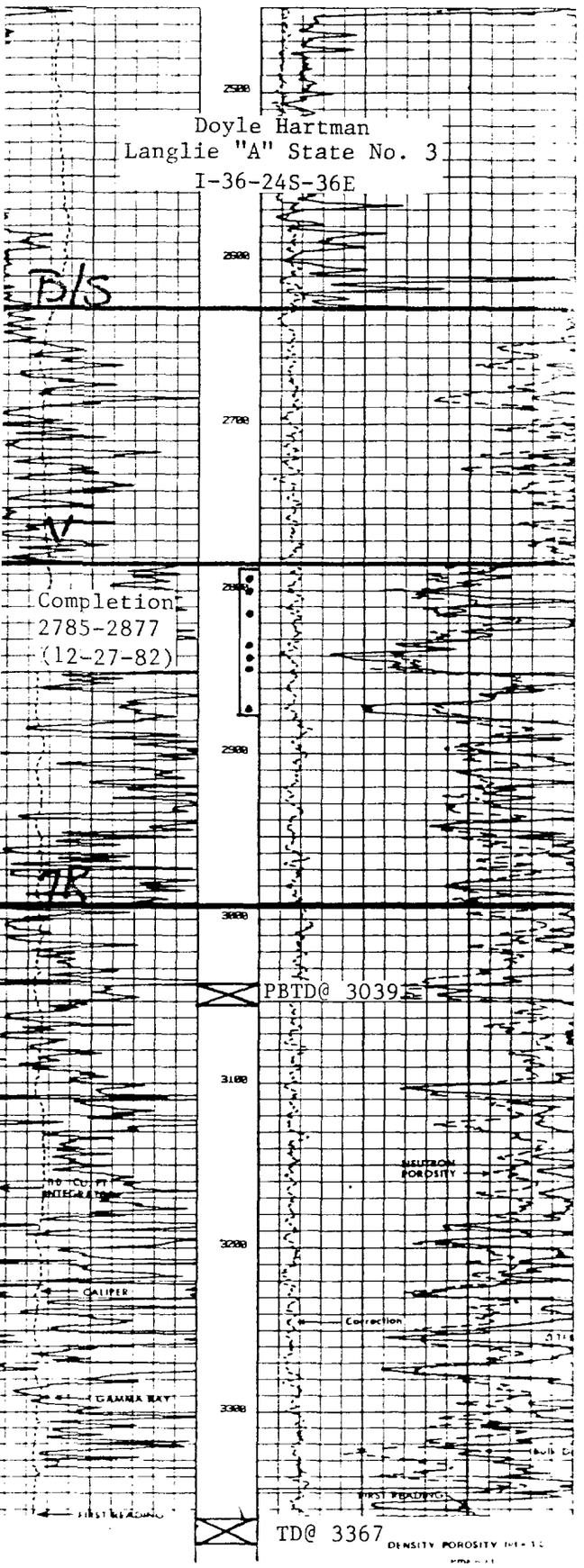
Cumulative Gas Recovery, mmcf at April 1, 1984:
126.585

Estimated Remaining Gas Recovery, mmcf:
Decline curve projection: 1004.0
Deliverability projection: 411.0 to 537.0

5) The daily test data for April, 1984 are as follows:

MCFPD	BWPD	CP	CHOKE	DATE	
364	53	104	23	4/01	
364	42	104	23	4/02	
358	54	104	23	4/03	
358	63	104	23	4/04	
346	52	102	23	4/05	
346	49	106	23	4/06	
346	49	106	23	4/07	
346	52	110	23	4/08	
346	25	110	23	4/09	
346	77	105	23	4/10	
346	54	105	23	4/11	
339	22	104	23	4/12	
358	30	104	23	4/13	
358	42	104	23	4/14	
358	40	104	23	4/15	
358	25	106	23	4/16	
344	25	106	23	4/17	
	20	104	23	4/18	
125		109	23	4/19	
		109	23	4/20	Well Serv.
				4/21	Well Serv.
296	13	110	23	4/22	
258	35	110	23	4/23	
200	8	113	23	4/24	
300	10	112	23	4/25	
296	10	105	23	4/26	
296	35	106	23	4/27	
284	45	106	23	4/28	
296	36	106	23	4/29	
288	42	106	23	4/30	

Noting high water production, these tests substantiate that, in order to prevent "underground waste", a minimum of at least 53 mcf with all of the associated water should be produced. It is our opinion that in order to properly protect the well, a much higher rate od 238 is preferable and could be substianted, but because the well is on 80-acre spacing for the Jalmat (gas) pool, we have requested 53 mcfpd, which was the allowable for the month of April, 1984.



COMPANY	Doyle Hartman
WELL	Langlie "A" State No. 3
FIELD	Jalmat (Gas)
LOCATION	1980 FSL & 330 FEL (I)
	Sec. 36, T-24-S, R-36-E
	(24-36-36-I)
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB 3264
	DF
	GL 3254

COMPLETION RECORD

SPUD DATE	12-18-82	**COMP. DATE**	12-27-82
TD	3367	**PBTD**	3039

CASING RECORD 9 5/8 @ 401 w/250
7 @ 3366 w/675

PERFORATING RECORD Perf: 2785-2877 w/20
(Yates)

STIMULATION A/5300

IP IPF= 132 MCFPD + 6 BWPD

GOR **GR**

TP **CP** FCP=51 (SICP=115)

CHOKE 22/64 **TUBING** 2 3/8" @ 3007

REMARKS

Pump arrangement: 6 X 64 X 1 1/4

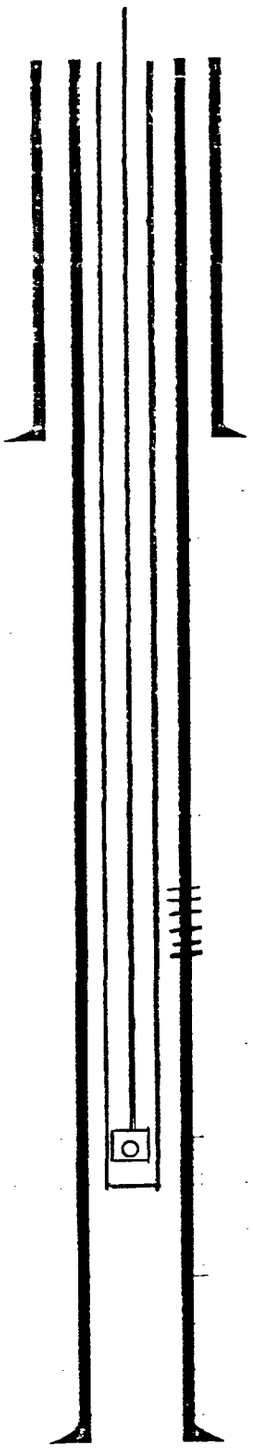
1-15-83: SWF/72,900 + 179,000.

Well Test (5-06-83)
Gas: 376 MCFPD
Oil: 0 BOPD
Water: 48 BWPD
Choke: 23/64
FCP: 134

Current Pump Arrangement
(10 x 86 x 1 1/4)
Current Tubing Depth: 2952

T-36-24S-36E

WELLBORE SKETCH
LANGLIE "A" STATE NO. 3



9 5/8" Set at 401'
Cement 250 Sacks

Perforations 1 hole each at: 2785, 2789, 2794, 2798, 2802, 2810, 2813, 2816, 2825, 2831, 2834, 2838, 2842, 2845, 2848, 2863, 2867, 2870, 2873, 2877.

2" Insert Pump
2 3/8" Eve Tubing
Set at 2,952'

7" Set at 3,366'
Cement 675 Sacks

DOYLE HARTMAN, OIL OPERATOR — RPT# 000003 — RUN ON 5/14/84

YEAR-TO-DATE PRODUCTION FOR 1983

GAS VOLS CALCULATED AT 15.025 PSIA

DATE ON STREAM 3/24/83 NRI % .58789063

[illegible] 53667 LANGLIE A STATE #3 — OPERATOR - DOYLE HARTMAN

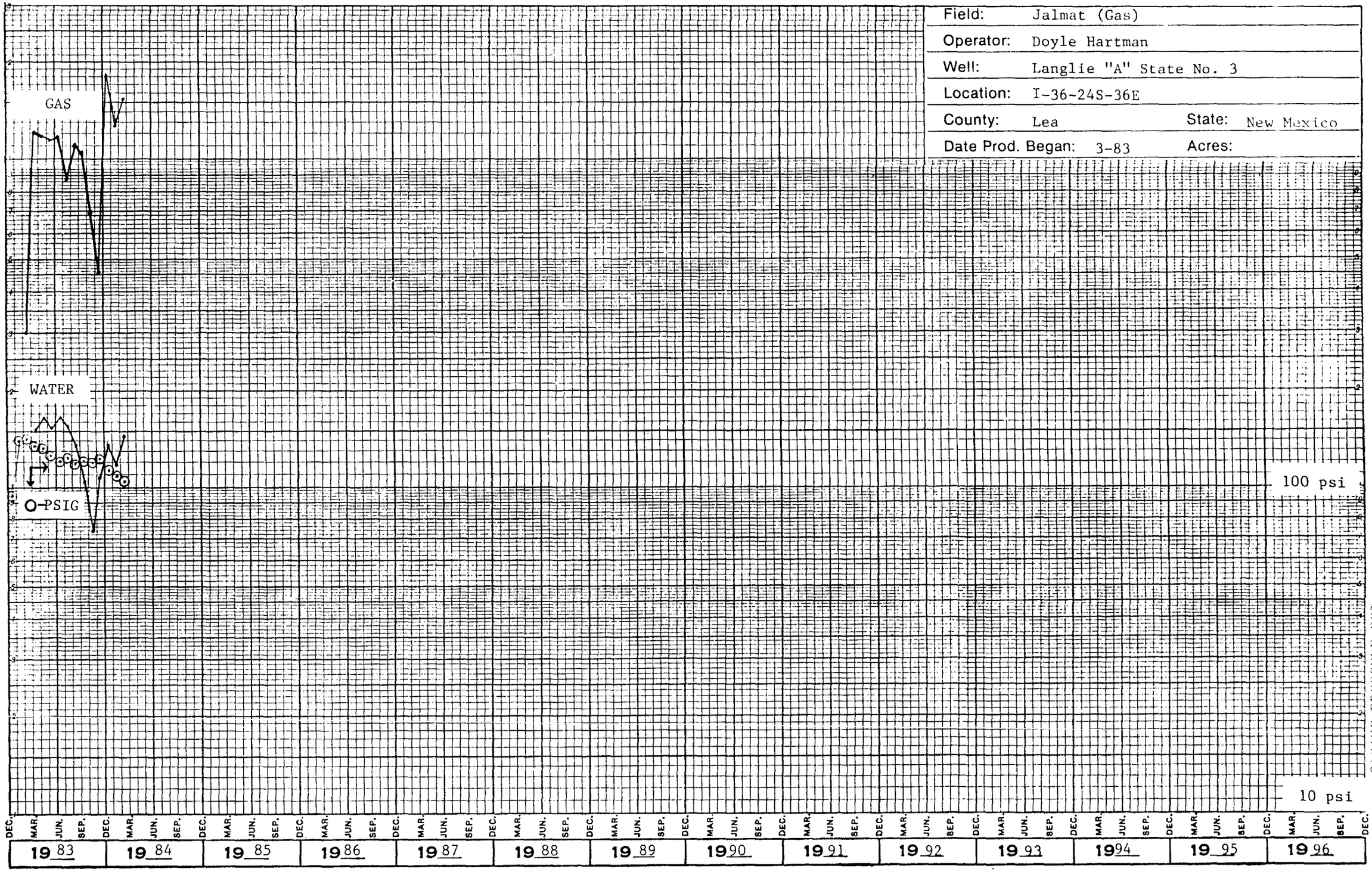
	MCF GAS PRODUCED	BBLS OIL PRODUCED	BBLS H2O PRODUCED	DAYS PRODN	LP PSIG	AVG TEMP	BTU FACTOR	BTU	ITD CUME GAS	ITD CUME OIL	AVG TP	AVG CP	DAYS SHUTIN
JANUARY			399.30								99	94	1
FEBRUARY			1796.00									140	
[illegible]	3009		1674.00						3009			141	
APRIL	12215		1518.00	30.0	9.50	59	.9892		15224			135	
MAY	11893		1052.00	31.0	9.00	64	.9866	1107	27117			133	
JUNE	11652		1542.00	30.0	9.50	70	.9842	1107	38769			126	
JULY	11860		1654.00	31.0	9.75	77	.9800	1107	50629			122	
AUGUST	8983		1569.00	26.0	11.25	83	.9767	1107	59612			124	4
SEPTEMBER	11276		1359.00	29.0	12.75	81	.9798	1109	70888			119	2
OCTOBER	10618		1043.00	29.8	9.25	79	.9777	1109	81506			121	1
NOVEMBER	7125		743.00	30.0	9.40	81	.9762	1109	89631			120	
[illegible]	4664		1796.00	14.8	11.25	81	.9782	1109	93295			123	15
YEAR 1983	93295		16015.00	251.6									
ITD	93295		16015.00	251.6									

... HARTMAN. OIL OPERATOR RPT# 000003 RUN ON 5/14/84
...-STATE PRODUCTION FOR 1984
... CALCULATED AT 15.025 PSIA

...7 LANGLIE A STATE #3 — DATE ON STREAM 3/24/83 — NRI % .58789063 — OPERATOR - DOYLE HARTMAN

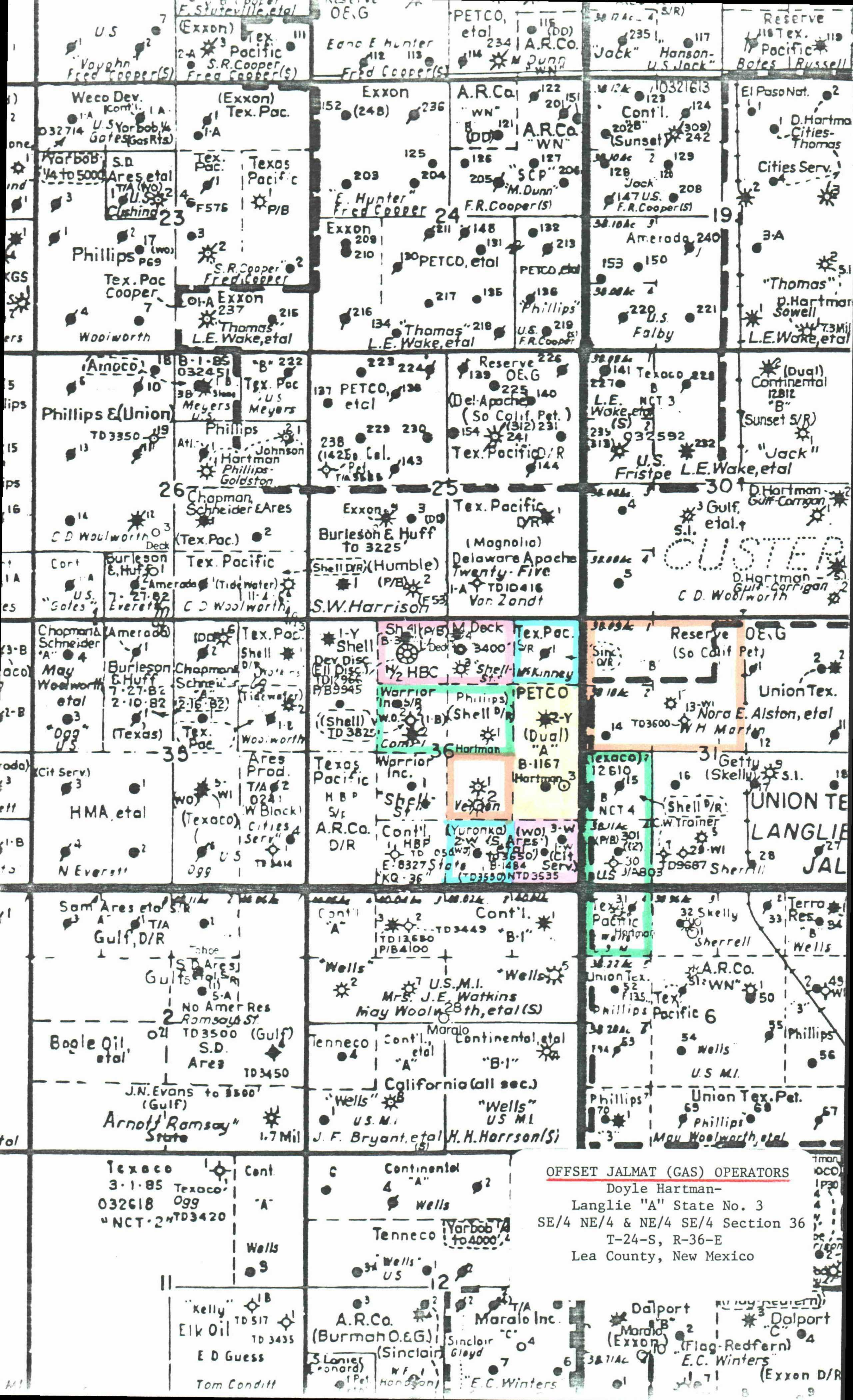
	MCF GAS PRODUCED	BBLS OIL PRODUCED	BBLS H2O PRODUCED	DAYS PRODN	LP PSIG	AVG TEMP	BTU FACTOR	BTU	ITD CUME GAS	ITD CUME OIL	AVG TP	AVG CP	DAYS SHUTIN
...UARY	11650		1355.00	31.0	10.50	54	.9914	1109	104945			113	
...RUARY	10561		1173.00	29.0	9.25	58	.9391	1109	115506			109	
[illegible]	11079		1453.00	31.1	9.60	60	.9888	1111	126585			105	
[illegible]	8430		1005.00	30.0	9.50	65	.9367	1111	135015			106	
...Y													
...E													
...LY													
...UST													
[illegible]													
[illegible]													
[illegible]													
[illegible]													
[illegible]	41720		4939.00	121.1									
[illegible]	135015		21004.00	372.7									

Field:	Jalmat (Gas)
Operator:	Doyle Hartman
Well:	Langlie "A" State No. 3
Location:	I-36-24S-36E
County:	Lea State: New Mexico
Date Prod. Began:	3-83 Acres:



LIST OF JALMAT GAS OPERATORS
DOYLE HARTMAN
LANGLIE "A" NO. 3
SE/4 NE/4 and NE/4 SE/4 Section 36, T-24-S, R-36-E
LEA COUNTY, NEW MEXICO

	OPERATOR	LEASE AND WELL NAME(S)	GAS WELL LOCATION(S)	UNIT DESCRIPTION	NUMBER OF ACRES
1	MILLARD DECK ESTATE	SHELL STATE	NO ACTIVE GAS WELL	NE/4 NW/4 and NW/4 NE/4 Section 36, T-24 S, R-36-E	80
2	SUN TEXAS	McKINNEY	NO ACTIVE GAS WELL	NE/4 NE/4 Section 36 T-24-S, R-36-E	40
3	GETTY OIL COMPANY	MARTIN "B" NO. 1	F-31-24S-37E	NW/4 Section 31 T-24-S, R-37-E	160
4	DOYLE HARTMAN	FEDERAL JALMAT COM NO. 1	D-6-25S-37E	W/2 SW/4 Section 31 T-24-S, R-37-E and NW/4 NW/4 Section 6 T-25-S, R-37-E	120
5	CONVEST ENERGY	STATE "W"	NO ACTIVE GAS WELL	SE/4 SE/4 Section 36 T-24-S, R-36-E	40
6	CONVEST ENERGY	STATE "W"	NO ACTIVE GAS WELL	SW/4 SE/4 Section 36 T-24-S, R-36-E	40
7	PHILLIPS PETROLEUM	VERNON NO. 1	J-36-24S-36E	NW/4 SE/4 Section 36 T-24-S, R-36-E	40
8	DOYLE HARTMAN	CUSTER STATE NO. 1	G-36-24S-36E	SW/4 NE/4 and SE/4 NW/4 Section 36, T-24-S, R-36-E	80



OFFSET JALMAT (GAS) OPERATORS

Doyle Hartman-
Langlie "A" State No. 3
SE/4 NE/4 & NE/4 SE/4 Section 36
T-24-S, R-36-E
Lea County, New Mexico

The Langlie "A" State No. 3 well, located 1980 FSL & 330 FEL (I) Section 36, T-24-S, R-36-E, Lea County, New Mexico, has no accumulated over/under production.

STATEMENT OF CERTIFICATION
HARDSHIP GAS WELL CLASSIFICATION
Doyle Hartman-
Langlie "A" State No. 3
1980 FSL & 330 FEL (I)
Section 36, T-24-S, R-36-E
Lea County, New Mexico
Jalmat (Gas)

DOYLE HARTMAN, OPERATOR, as required by the State of New Mexico Energy and Minerals Department, Oil Conservation Division, certifies that:

1. All information submitted with this application is true and correct to the best of his knowledge;

2. One copy of this application has been submitted to the Hobbs District I Office of the Oil Conservation Division;

3. Notice of this application has been given to El Paso Natural Gas Company, the transporter and purchaser; and

4. Notice of this application has been given to all offset Jalmat (Gas) operators.

Michelle Hembree
Michelle Hembree
Administrative Assistant

THE STATE OF TEXAS §
§
COUNTY OF MIDLAND §

BEFORE ME, Notary Public, on this day personally appeared Michelle Hembree, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN under my hand and seal of office this 14th day of MAY, 1984.

Cindy Sue Harrison
Notary Public

My Commission Expires:

CINDY SUE HARRISON
My Commission Expires Aug. 11, 1987

DOYLE HARTMAN
Oil Operator
500 N. MAIN
P. O. BOX 10426
MIDLAND, TEXAS 79702

(915) 684-4011
May 8, 1984

Offset Jalmat (Gas) Operators
Doyle Hartman-
Langlie "A" State No. 3 Lease
SE/4 NE/4 and NE/4 SE/4 Section 36
T-24-S, R-36-E
Lea County, New Mexico

Please be advised that Doyle Hartman, as operator of the Langlie "A" State No. 3 well located 1980 FSL & 330 FEL (I) Section 36, T-24-S, R-36-E, Lea County, New Mexico has filed with the New Mexico Oil Conservation Division for administrative approval of his Langlie "A" State No. 3 well for hardship gas well classification, pursuant to NMOCD Order R-7453.

If you have any questions as to the nature of the application, please do not hesitate to contact us.

Very truly yours,

DOYLE HARTMAN

Michelle Hembree

Michelle Hembree
Administrative Assistant

/mh

cc: All Operators Listed on Attached Table

DOYLE HARTMAN
Oil Operator
500 N. MAIN
P. O. BOX 10426
MIDLAND, TEXAS 79702

(915) 684-4011

May 8, 1984

New Mexico Oil Conservation Division
District I Office
Post Office Box 1980
Hobbs, New Mexico 88240

Attention: Mr. Jerry Sexton

Re: Emergency Hardship Gas
Well Classification
Langlie "A" State No. 3
SE/4 NE/4 and NE/4 SE/4
Section 36, T-24-S, R-36-E
Lea County, New Mexico
Jalmat (Gas)

Gentlemen:

Please find enclosed one copy of our request before the New Mexico Oil Conservation Division in Santa Fe to administratively classify our Langlie "A" State No. 3 well, located 1980 FSL & 330 FEL (I) Section 36, T-24-S, R-36-E, Lea County, New Mexico as a hardship gas well.

We respectfully request emergency approval of our request for hardship gas well classification on a temporary basis not to exceed 90 days pending final action on our formal application by the OCD Director.

Thank you for your attention to this matter.

Very truly yours,

DOYLE HARTMAN

Michelle Hembree

Michelle Hembree
Administrative Assistant

/mh

cc: El Paso Natural Gas Company
Post Office Box 1492
El Paso, Texas 79978

Attention: Mr. Paul Burchell
Conservation Engineer

El Paso Natural Gas Company
Post Office Box 1492
El Paso, Texas 79978

Attention: Mr. Jim Minnick

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501