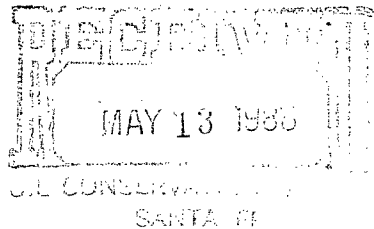




**Union Texas Petroleum**



May 7, 1986

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

Mr. Richard L. Stamets  
N. M. Oil Conservation Division  
P. O. Box 2088  
Santa Fe, NM 87501-2088

Re: Oxnard #3-A MV/DK 880' FEL, 1120' FSL  
Section 8, T31N, R8W, San Juan County, NM

Dear Mr. Stamets:

Union Texas Petroleum is applying for an administrative downhole commingling order for the referenced well in the Basin Dakota and Blanco Mesaverde fields. The ownership of the zones to be commingled is common, with Union Texas Petroleum having a 75% working interest and Arco a 25% working interest. The two offset operators are Arco and Northwest Pipeline Corporation. The Bureau of Land Management and these offset operators will receive notification of this proposed downhole commingling.

The Dakota zone was perforated with a total of 19 holes from 7977' - 8077', and fraced with 50,000# sand in slick water. The Dakota has produced only 60 MMCF since its first delivery in November, 1981. The Mesaverde zone was perforated with a total of 31 holes from 5469' - 5933', and fraced with 93,000# sand in slick water. The Mesaverde has produced 270 MMCF since its first delivery in September, 1981 and is presently capable of 321 MCF/D. The well was initially completed as a dual Mesaverde/Dakota in March, 1980.

A packer leakage test in November, 1985 indicated the two producing zones were communicated downhole. Due to the Dakota interval's poor production (average less than 10 MCF/D), we would propose plugging the Dakota and recompleting the well as a single Mesaverde rather than making the possibly expensive repairs necessary to eliminate the communication and continue producing as a dual. All of the nearby Dakota wells are also poor producers. Therefore, downhole commingling would now be the most efficient method of producing the subject well. The proposed commingling will result in the recovery of additional hydrocarbons from the Basin Dakota interval, thereby preventing waste, and will not violate correlative rights.

Mr. Richard L. Stamets  
May 7, 1986  
Page 2

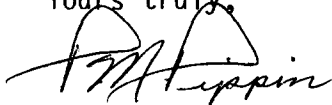
The reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed downhole commingling. The fluids from each zone are compatible and no precipitates will be formed to cause damage to either reservoir. The Dakota side of this well does not produce water, nor do the other Dakota wells nearby. The Mesaverde in this well makes very little water. The daily production will not exceed the limit of Rule 303c, Section 1a, Part 1. Neither zone has produced any oil or condensate. The bottom hole pressure for the Dakota is 1157 psi. The bottom hole pressure for the Mesaverde is 595 psi. These bottom hole pressures were calculated using the shut-in pressures from the formations' last deliverability test and the Rawlins and Schellhardt method for determining bottom hole pressures in gas well.

The District Office in Aztec will be notified any time the commingled well is shut in for seven (7) consecutive days.

To allocate the commingled production to each of the zones, Union Texas Petroleum will consult with the District Supervisor of the Aztec District Office of the Division to determine an allocation formula for each of the production zones.

Included with this letter is a plat showing ownership of offsetting leases, letters to the offset operators and the BLM, wellbore diagram, data sheet, production curves, Mesaverde water analysis, and the most current deliverability tests.

Yours truly,

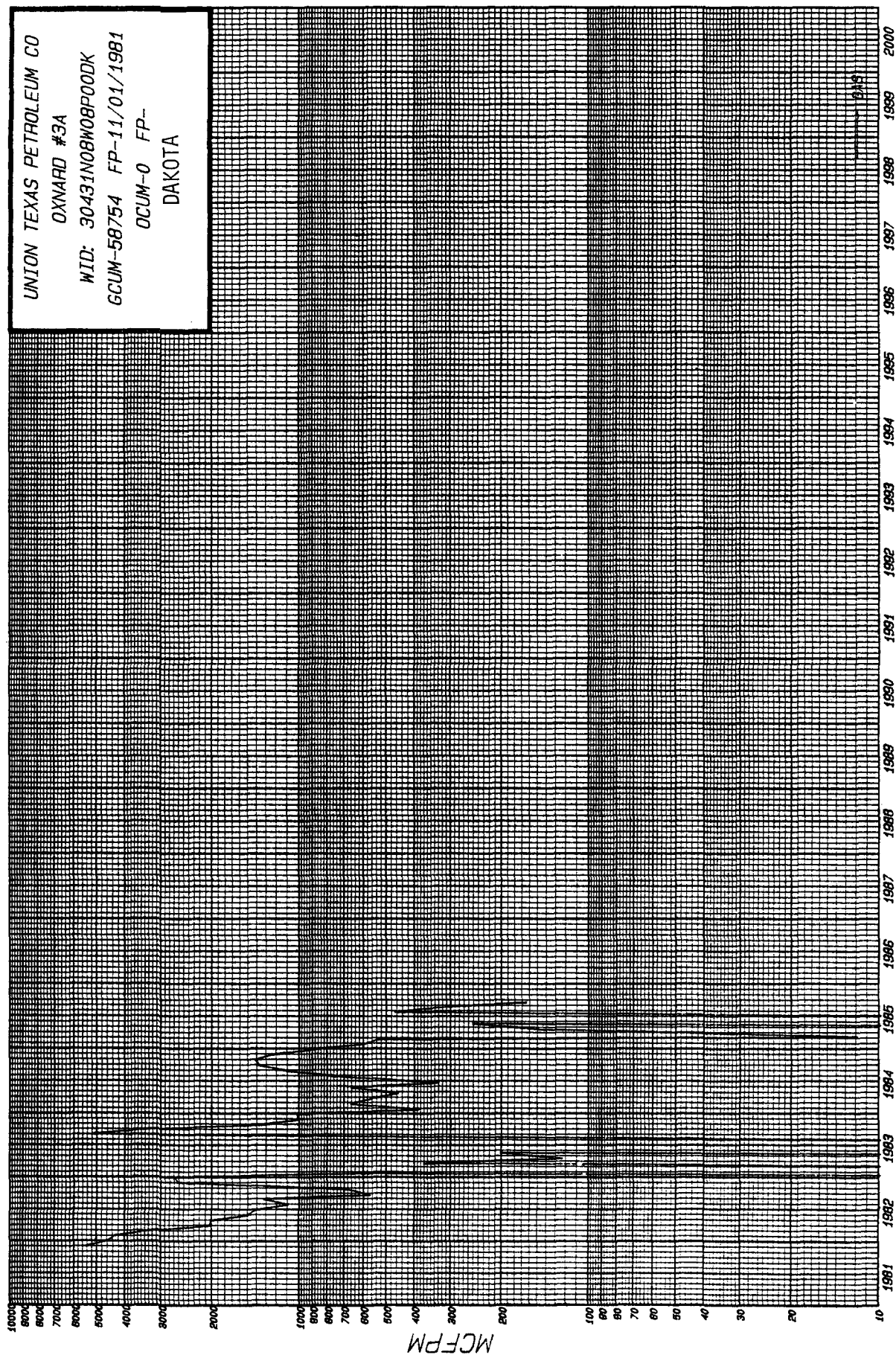
A handwritten signature in cursive script, appearing to read 'P. M. Pippin', written in dark ink.

P. M. Pippin  
Senior Production Engineer

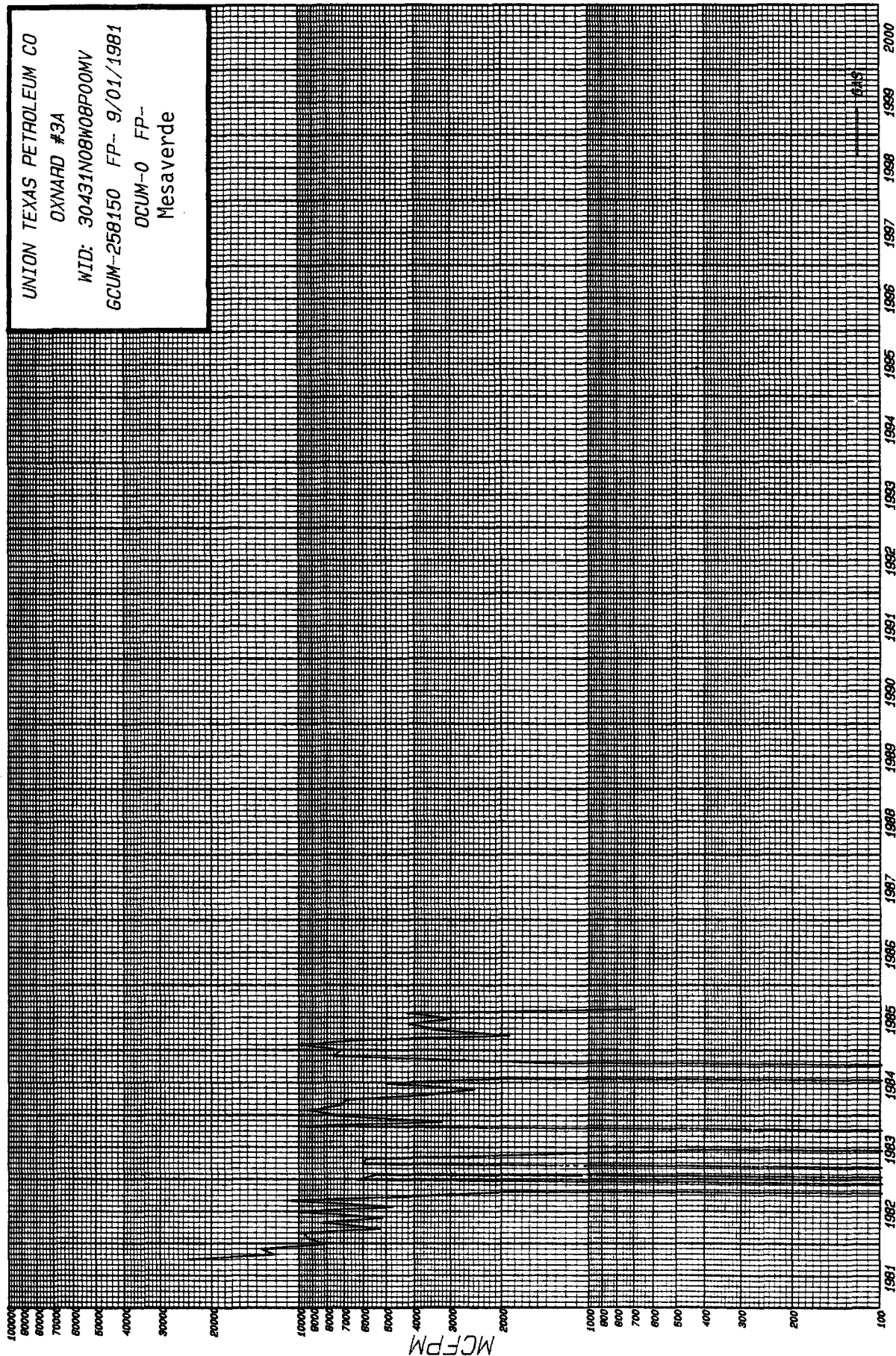
PMP:lmg

cc: Frank Chaves  
OCD - Aztec Office

UNION TEXAS PETROLEUM CO  
OXNARD #3A  
WID: 30431N08W08P00DK  
GCUM-58754 FP-11/01/1981  
OCUM-0 FP-  
DAKOTA

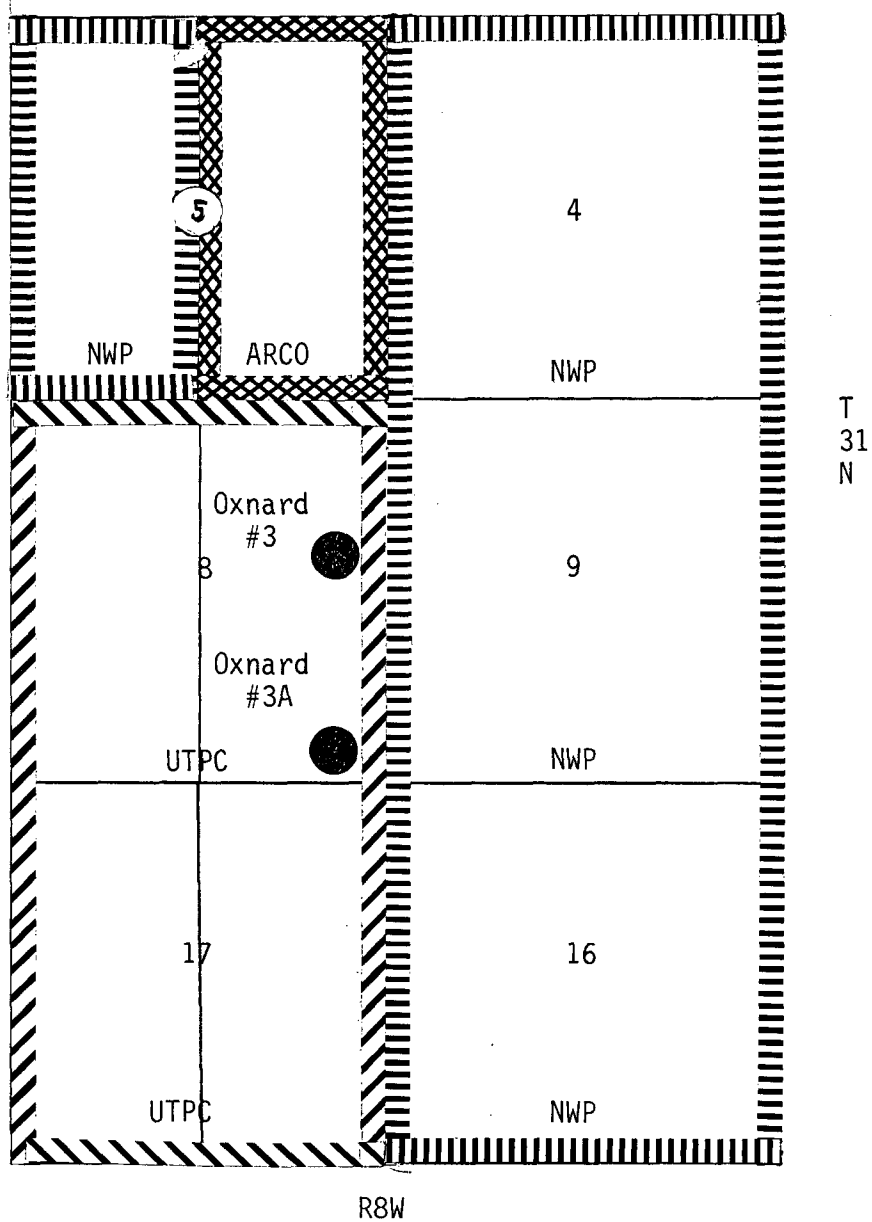


UNION TEXAS PETROLEUM CO  
 OYNARD #3A  
 WID: 30431N08W08P00MV  
 GCUM-258150 FP- 9/01/1981  
 DCUM-0 FP-  
 Mesaverde



PRODUCTION YEAR

San Juan County  
New Mexico



Operator

Northwest Pipeline Corp.  
Union Texas Petroleum  
Arco



WORKOVER DATA SHEET

<u>WELL NAME</u>	Oxnard #3A	<u>DATE</u>	12/2/85
<u>LOCATION</u>	880' FEL; 1120' FSL Sec. 8, T31N, R8W San Juan County, NM	<u>DATUM</u>	KB (13' above G.L.)
<u>ELEVATION</u>	6546' G.L.	<u>TOTAL DEPTH</u>	8122'
<u>FIELD FORMATION</u>	Basin Dakota Blanco Mesaverde	<u>UNICON W.I.</u>	75% NR = 62.625%

<u>COMPLETED</u>	<u>INITIAL POTENTIAL</u>	<u>PLUG BACK TOTAL DEPTH</u>
3/28/80	MV: AOF=3177 MCF/D; SICP=1274 psi DK: AOF=1990 MCF/D; SITP=2205 psi	8109'

<u>CASING RECORD</u>	<u>CASING SIZE</u>	<u>WT. &amp; GRADE</u>	<u>DEPTH SET</u>	<u>CEMENT</u>	<u>TOP CEMENT</u>
13-3/4" hole	10-3/4"	32.75# H-40	324'	275 sx	circ.
9-7/8" hole	7-5/8"	26.4# K-55	3740'	350 sx	2100' (survey)
6-3/4" hole	5-1/2"	15.5# K-55	3568'-8122'	500 sx	circ.

<u>TUBING RECORD</u>	2-1/16"	3.25# IJ	7931'
		Baker Model R double grip pkr @ 7924'	
		2 Baker Blast Joints 5509'-5549'	
		4 Baker Blast Joints 5743'-5823'	
	2-1/16"	3.25# IJ	5873'

WELL HEADLOGGING RECORD

Density &amp; Induction Logs

STIMULATIONS

Perf DK 7977', 78', 79', 8001', 4', 7', 10', 13', 16', 19', 8053', 56', 59'  
62', 65', 68', 71', 74', 77' w/1-0.42" hole/ft. Total 19 holes. Fraced w/50,000#  
20/40 sand in slick water. Perf MV 5469', 72', 74', 5521', 23', 26', 30',  
32', 36', 39', 58', 69', 5610', 12', 65', 67', 5756', 61', 69', 81', 87', 91',  
99', 5804', 12', 18', 23', 64', 66', 5931', 33' w/1-0.42" shot/ft. Total 31  
holes. Fraced w/ 93,000# 20/40 sand in slick water.

WORKOVER HISTORY

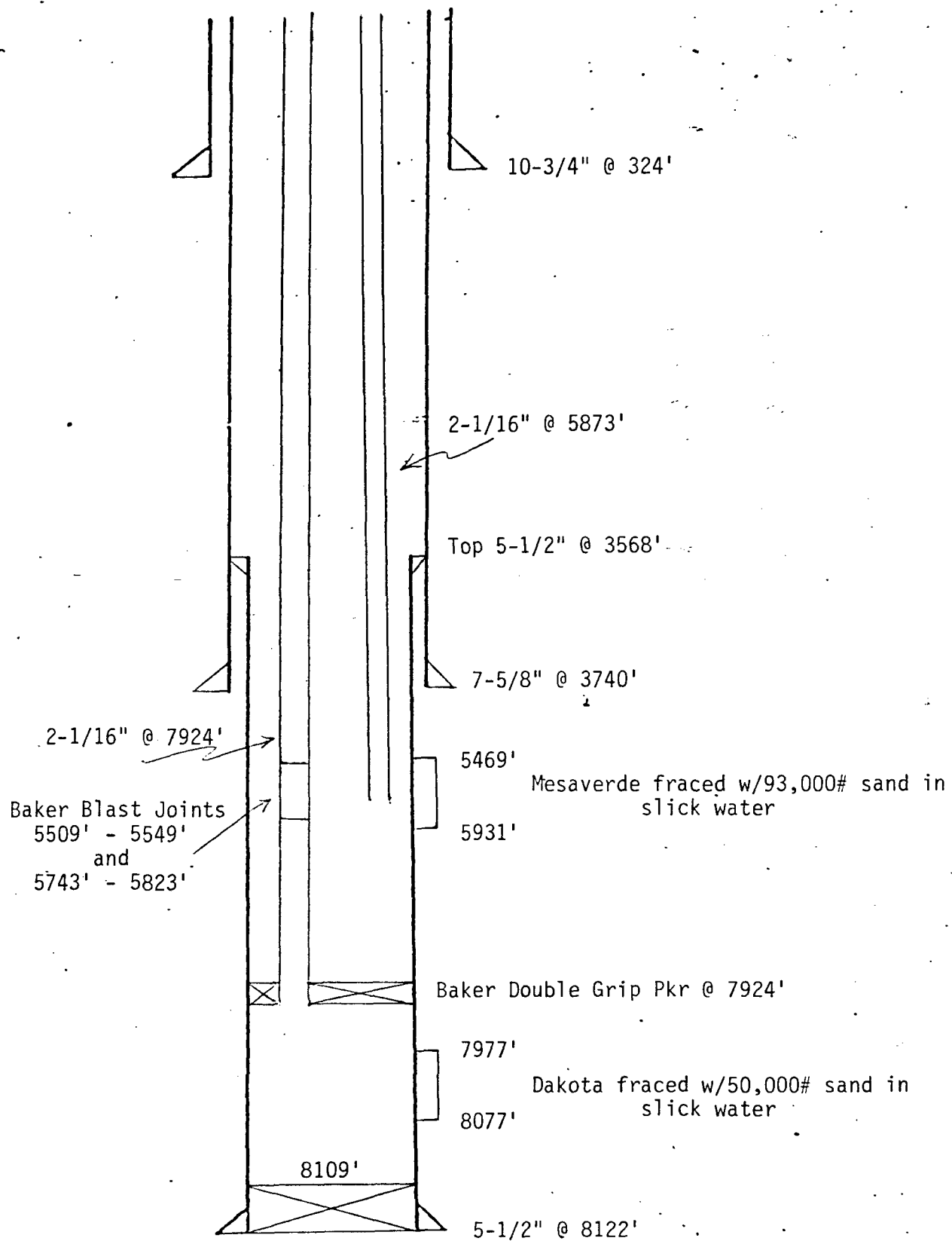
NONE

PRODUCTION HISTORY

DK = 991 BTU  
MV = 1011 BTU  
1st Delivery: 9/81  
Cumulative MV: 258 MMCF  
Cumulative DK: 59 MMCF

WELL BORE DIAGRAM FOR

Oxnard #3A



**NEW MEXICO OIL CONSERVATION COMMISSION**  
**WELL DELIVERABILITY TEST REPORT FOR 19 83**

Form C122-A  
 Revised 1-1-66

POOL NAME <u>Basin</u>	POOL SLOPE n = <u>0.75</u>	FORMATION <u>Sakota</u>	COUNTY <u>San Juan</u>
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COMPANY <u>Union Texas Petroleum Corp.</u>			WELL NAME AND NUMBER <u>Oxnard No. 3-A</u>		
UNIT LETTER <u>P</u>	SECTION <u>8</u>	TOWNSHIP <u>31N</u>	RANGE <u>8W</u>	PURCHASING PIPELINE <u>Southern Union Leasing</u>	
CASING O.D. - INCHES <u>7.625</u> <u>5.500</u>	CASING I.D. - INCHES <u>6.969</u> <u>4.950</u>	SET AT DEPTH - FEET <u>3740</u> <u>3568-8122</u>	TUBING O.D. - INCHES <u>2.0625</u>	TUBING I.D. - INCHES <u>1.750</u>	TOP - TUBING PERF. - FEET <u>7921</u>
GAS PAY ZONE FROM <u>7977</u> TO <u>8077</u>		WELL PRODUCING THRU CASING TUBING <u>XX</u>		GAS GRAVITY <u>.601</u>	GRAVITY X LENGTH <u>4761</u>
DATE OF FLOW TEST FROM <u>4/8/83</u> TO <u>4/16/83</u>			DATE SHUT-IN PRESSURE MEASURED <u>6/15/83</u>		

**PRESSURE DATA - ALL PRESSURES IN PSIA**

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a-c) or (b-c)	(g) Average Meter Pressure (Integr.)
—	<u>289</u>	<u>285</u>	<u>289</u>	<u>-4</u>	<u>+4</u>	<u>305</u>
(h) Corrected Meter Pressure (g + e)	(i) Avg. Wellhead Press. $P_i = (b + f)$	(j) Shut-in Casing Pressure (DWt)	(k) Shut-in Tubing Pressure (DWt)	(l) $P_c =$ higher value of (j) or (k)	(m) Del. Pressure $P_d = \frac{50}{\%P_c}$	(n) Separator or Dehydrator Pr. (DWt) for critical flow only
<u>301</u>	<u>305</u>	—	<u>972</u>	<u>972</u>	<u>486</u>	—

**FLOW RATE CORRECTION (METER ERROR)**

Integrated Volume - MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
<u>3</u>	<u>.9862</u>	<u>.9931</u>	Q = <u>3</u> MCF/D

**WORKING PRESSURE CALCULATION**

$(1 - e^{-R})$	$(P_c Q_m)^2 (1000)$	$R^2 = (1 - e^{-R}) (P_c Q_m)^2 (1000)$	$P_i^2$	$P_w^2 = P_i^2 + R^2$	$P_w = \sqrt{P_w^2}$
<u>.293</u>		<u>FLN</u>	<u>93.025</u>		<u>Pt. 305</u>

**DELIVERABILITY CALCULATION**

$$D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \underline{3} \left[ \frac{(708,588)^n}{(851,759)^n} \right] = \frac{.8319}{.8710} = \underline{3} \text{ MCF/D}$$

**REMARKS:**

Annual test first schedule

**SUMMARY**

Item b 301 Psia  
 $P_c$  972 Psia  
 $Q$  3 MCF/D  
 $P_w$  305 Psia  
 $P_d$  486 Psia  
 $D$  3 MCF/D

Company Union Texas Petroleum Corp.  
 By Barbara Norman  
 Title Production Secretary  
 Witnessed By \_\_\_\_\_  
 Company \_\_\_\_\_



OIL CONSERVATION DIVISION

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-122-A  
Revised 10-1-78

WELL DELIVERABILITY TEST REPORT FOR 19 86

WELL NAME <u>Blanco</u>	WELL DEPTH <u>8075</u>	FORMATION <u>Mesaville</u>	COUNTY <u>San Juan</u>
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COMPANY <u>Union Texas Petroleum Corp.</u>			WELL NAME AND SURFACE <u>Oxnard 710.3-A</u>		
WELL LETTER <u>P</u>	SECTION <u>8</u>	TOWNSHIP <u>31N</u>	RANGE <u>8W</u>	PURCHASING PIPELINE <u>S. U. Gathering Co.</u>	
CASING O.D. - INCHES <u>7.625</u>	CASING I.D. - INCHES <u>6.969</u>	SET AT DEPTH - FEET <u>3740</u>	TUBING O.D. - INCHES <u>2.0625</u>	TUBING I.D. - INCHES <u>1.750</u>	TUBING SET - FEET <u>5863</u>
GAS PAY ZONE <u>5469</u> TO <u>5933</u>		WELL PRODUCING TIME <u>XX</u>		GAS GRAVITY <u>.597</u>	GRAVITY & LENGTH <u>3500</u>
DATE OF FLOW TEST <u>3/18/86</u> TO <u>3/25/86</u>			DATE SHUT-IN PRESSURE MEASURED <u>4/1/86</u>		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DPR) <u>414</u>	(b) Flowing Tubing Pressure (DPR) <u>408</u>	(c) Flowing Meter Pressure (DPR) <u>405</u>	(d) Flow Chart Scale Reading <u>405</u>	(e) Meter Error (Item c - Item d) <u>0</u>	(f) Friction Loss (a - c) or (b - c) <u>+ 3</u>	(g) Average Meter Pressure (Integr.) <u>333</u>
(h) Corrected Meter Pressure (g + e) <u>333</u>	(i) Avg. Wellhead Press. $P_1 = (h + f)$ <u>336</u>	(j) Shut-in Casing Pressure (DPR) <u>527</u>	(k) Shut-in Tubing Pressure (DPR) <u>485</u>	(l) $P_2 =$ higher value of (j) or (k) <u>527</u>	(m) Del. Pressure $P_d = \frac{70}{100} \times P_2$ <u>369</u>	(n) Separator or Dehydrator Pr. (DPR) for critical flow only <u>—</u>

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D <u>273</u>	Quantity of $\frac{\text{Item e}}{\text{Item d}}$ <u>1.000</u>	$\sqrt{\frac{\text{Item e}}{\text{Item d}}}$ <u>1.000</u>	Corrected Volume <u>273</u> MCF/D
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WORKING PRESSURE CALCULATION

$(1 - \frac{e}{d})^2$ <u>.225</u>	$(P_1 Q_w)^2 (1000)$ <u>13,063</u>	$(1 - \frac{e}{d})^2 (P_1 Q_w)^2 (1000)$ <u>2939</u>	$P_1^2$ <u>112,896</u>	$P_w^2 = P_1^2 + R^2$ <u>115,835</u>	$P_w = \sqrt{P_w^2}$ <u>340</u>
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DELIVERABILITY CALCULATION

$Q = Q \left[ \frac{P_1^2 - P_d^2}{P_1^2 - P_w^2} \right]^{\frac{1}{2}} = \frac{273}{\left[ \frac{141,568}{161,894} \right]^{\frac{1}{2}} \cdot .8744} = \frac{9042}{1.042} = 247$ MCF/D
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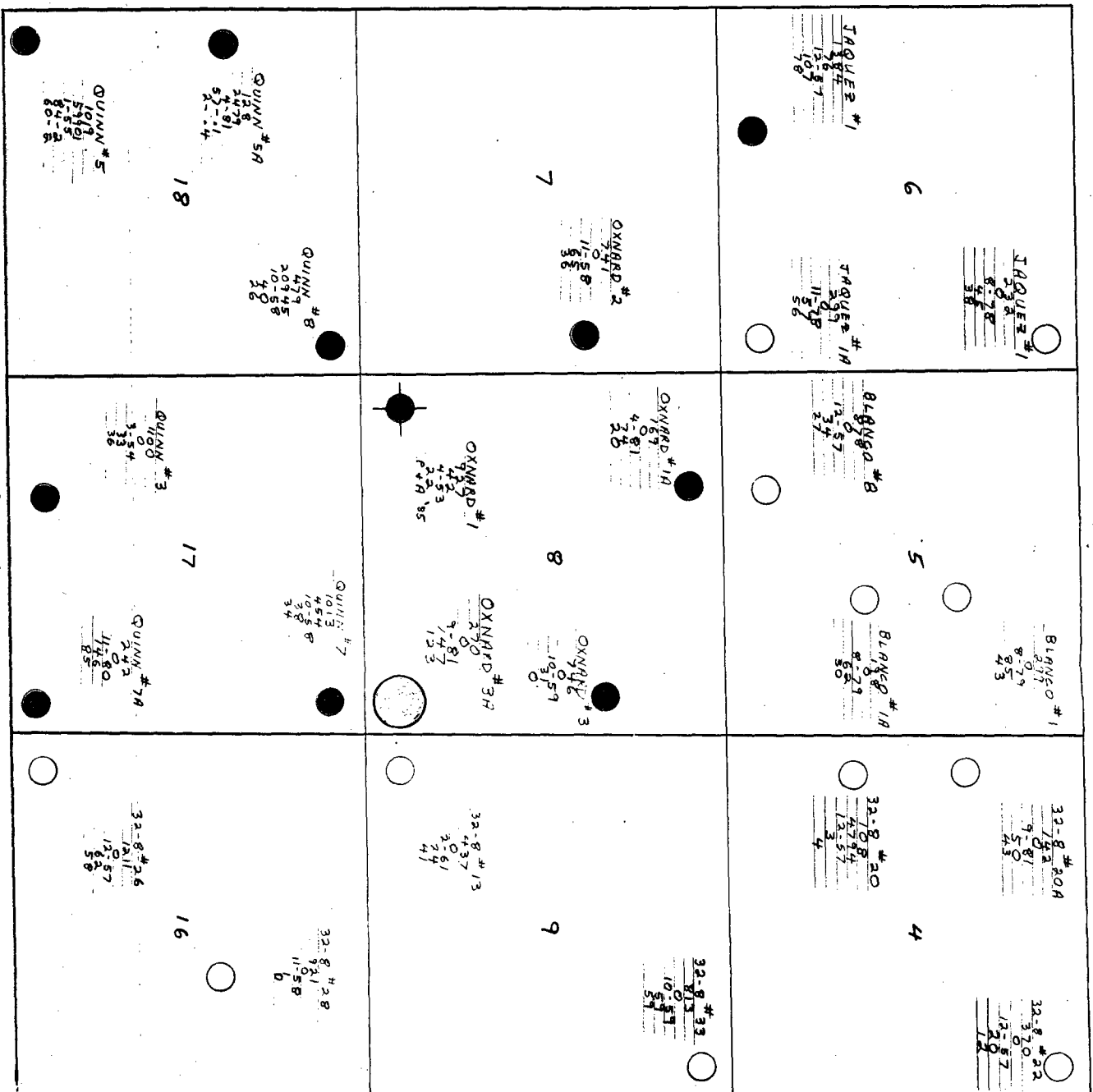
REMARKS:

SUMMARY

Item b 333 \_\_\_\_\_ Psc  
 $P_1$  527 \_\_\_\_\_ Psc  
 $Q$  273 \_\_\_\_\_ MCF/D  
 $P_w$  340 \_\_\_\_\_ Psc  
 $P_d$  369 \_\_\_\_\_ Psc  
 $Q$  247 \_\_\_\_\_ MCF/D

Company Union Texas Petroleum Corp.  
 By Barbara Norman 4/18/86  
 Title Production Technician  
 Witnessed By \_\_\_\_\_  
 Company \_\_\_\_\_

# MESAVERDE WELLS NEAR OXNARD 3A SAN JUAN COUNTY, N.M.



PMP  
5/6/86

T  
31  
N

R 8W

UHKOTA WELLS NEAR OXNARD 3H  
SAN JUAN COUNTY, N. M.

6	5	4
7	8 OXNARD #1A 5-81 30	9
18	17 OXNARD #3A 6-81 11-81 37	16
	18 OXNARD #7A 4-81 7-81 4	

R 8 W

WELL NAME  
CUM. GAS (MMCF)  
CUM. OIL (BBL)  
1ST DEL. DATE  
REV. 1984 PROD. ACFTD  
REV. 1985 PROD. MCF/D

T  
3  
1  
N

SUBJECT WELL  
UTPC OPERATED

PMP  
5/6/86



**Union Texas Petroleum**

May 7, 1986

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

U.S. Department of the Interior  
Minerals Management Service  
P. O. Drawer 600  
Farmington, NM 87499

Gentlemen:

Union Texas Petroleum is in the process of applying for a downhole commingling order for their Oxnard #3A well located 880' FEL, 1120' FSL, Sec. 8, T31N, R8W, N.M.P.M., San Juan County, NM, in the Basin Dakota and Blanco Mesaverde.

The purpose of this letter is to notify you of such action, as our records indicate that you are the owner and operator of acreage which adjoins the area in which the downhole commingling is requested. If you have no objections to the proposed commingling order, we would appreciate your signing the attached copy of this letter and returning same to this office.

Your prompt attention to this matter would be appreciated.

Yours truly,

P. M. Pippin  
Senior Production Engineer

PMP:lmg

The above downhole commingling request  
is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_



**Union Texas Petroleum**

May 7, 1986

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

Northwest Pipeline Corporation  
P. O. Box 90  
Farmington, New Mexico 87499

Gentlemen:

Union Texas Petroleum is in the process of applying for a downhole commingling order for their Oxnard #3A well located 880' FEL, 1120' FSL, Sec. 8, T31N, R8W, N.M.P.M., San Juan County, NM, in the Basin Dakota and Blanco Mesaverde.

The purpose of this letter is to notify you of such action, as our records indicate that you are the owner and operator of acreage which adjoins the area in which the downhole commingling is requested. If you have no objections to the proposed commingling order, we would appreciate your signing the attached copy of this letter and returning same to this office.

Your prompt attention to this matter would be appreciated.

Yours truly,

P. M. Pippin  
Senior Production Engineer

PMP:lmg

The above downhole commingling request  
is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_



**Union Texas Petroleum**

May 7, 1986

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

Arco Oil & Gas Company  
1816 East Mojave  
Farmington, New Mexico 87401

Gentlemen:

Union Texas Petroleum is in the process of applying for a downhole commingling order for their Oxnard #3A well located 880' FEL, 1120' FSL, Sec. 8, T31N, R8W, N.M.P.M., San Juan County, NM, in the Basin Dakota and Blanco Mesaverde.

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Your prompt attention to this matter would be appreciated.

Yours truly,

P. M. Pippin  
Senior Production Engineer

PMP:lmg

The above downhole commingling request  
is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_

## API WATER ANALYSIS REPORT FORM

Company Union Texas Petroleum		Sample No. 1	Date Sampled 05/01/86	
Field Blanco	Legal Description P 8 31 8		County or Parish San Juan	State NM
Lease or Unit Oxnard	Well 3A	Depth	Formation Mesaverde	Water, B/D Trace
Type of Water (Produced, Supply, etc.) Produced		Sampling Point Separation Unit		Sampled By

## DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	2217	96.8
Calcium, Ca	119	5.9
Magnesium, Mg	121	9.9
Barium, Ba		
Potassium, K	20	0.5

## ANIONS

Chloride, Cl	3908	110.2
Sulfate, SO <sub>4</sub>	28	0.6
Carbonate, CO <sub>3</sub>		
Bicarbonate, HCO <sub>3</sub>	137	2.3
Hydroxide, OH-	0	0

Total Dissolved Solids (calc.)

6550

Iron, Fe (total)

FE ++=10/Fe +++=0

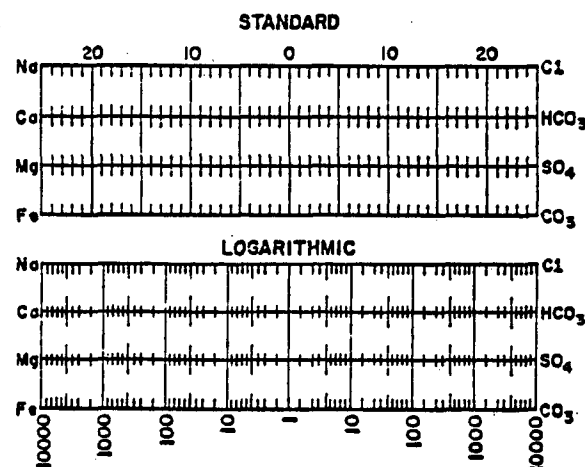
Sulfide, as H<sub>2</sub>S

0

## OTHER PROPERTIES

pH	5.84
Specific Gravity, 60/60 F.	1.004
Resistivity (ohm-meters) 63 F.	1.000
Total hardness	800

## WATER PATTERNS — me/l



REMARKS &amp; RECOMMENDATIONS:

PRODUCTION ANALYSTS  
 Analytical Services  
 P. O. Box 10112  
 Farmington, NM 87497

Analyst Clay Terry



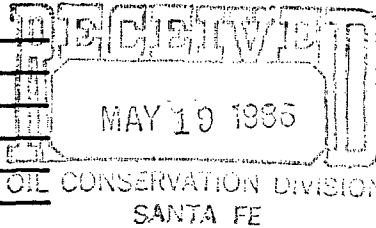
STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178

OIL CONSERVATION DIVISION  
BOX 2088  
SANTA FE, NEW MEXICO 87501

DATE 5/15/86

RE: Proposed MC  
Proposed DHC ☒  
Proposed NSL  
Proposed SWD  
Proposed WFX  
Proposed PMX



Gentlemen:

I have examined the application dated 5-13-86  
for the Union Texas Pet. Corp. Operator Osmond 3A P-8-31N-8W  
Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve.

Yours truly,

James D. [Signature]