

# Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING  
1860 LINCOLN STREET  
DENVER, COLORADO 80295  
(303) 861-5252

P.O. BOX 2038  
FARMINGTON, NEW MEXICO 87410

STATE OF NEW MEXICO  
Energy & Minerals Dept.  
Oil Conservation Division  
1000 Brazos Road  
Aztec, New Mexico

Attn: Mr. Frank Chavez

Dear Mr. Chavez;



Consolidated Oil & Gas, Inc. hereby requests authorization to down hole commingle the Basin Dakota and Tapacito Pictured Cliffs formations within the well-bore of our Huron 4-2 DK/PC dual, Unit P, Sec. 2, T26N, R4W, Rio Arriba County, New Mexico.

The well has apparently developed a hole in the Dakota production tubing and will no longer pass the New Mexico State Packer Leakage Test. We are currently producing Dakota oil through the Pictured Cliffs 1" production tubing. If the well is shut in the pressures equalize. Dakota tubing 495 psi and PC casing 495 psi respectively.

The Dakota has been shut in since April 1980 and will log off with condensate if we try to produce this zone. The Dakota will produce 12 hours if the well is shut in for 96 - 120 hours.

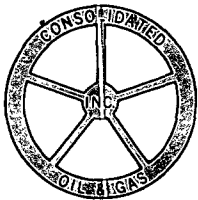
Due to the economics involved in working over an old well that has not been re-entered; we would like to commingle both zones, allocating 20% gas and 100% oil to the Basin Dakota and 80% gas to the Tapacito Pictured Cliffs formations, based on production curves and well tests.

Enclosed please find information requested.

Sincerely,

BARNEY JONES  
Drilling Foreman

BJ/ke  
Encls.



# *Consolidated Oil & Gas, Inc.*

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DENVER, COLORADO 80295  
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P.O. BOX 2038  
FARMINGTON, NEW MEXICO 87401

NEW MEXICO OIL CONSERVATION COMMISSION  
1000 Brazos Road  
Aztec, New Mexico

RE: Huron 4-2  
Unit P, Sec. 2, T26N, R4W  
Basin Dakota/Tapacito Pictured Cliffs  
Rio Arriba County, New Mexico  
Administrative Order #MC129A  
Authorization for Dual Completion

Gentlemen;

Enclosed please find information requested by the commission for application to down-hole commingle, Rule 303.

Sincerely,

BARNEY JONES  
Drilling Foreman

BJ/ke  
Encls.





Ull  
Revised 1-1-65

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

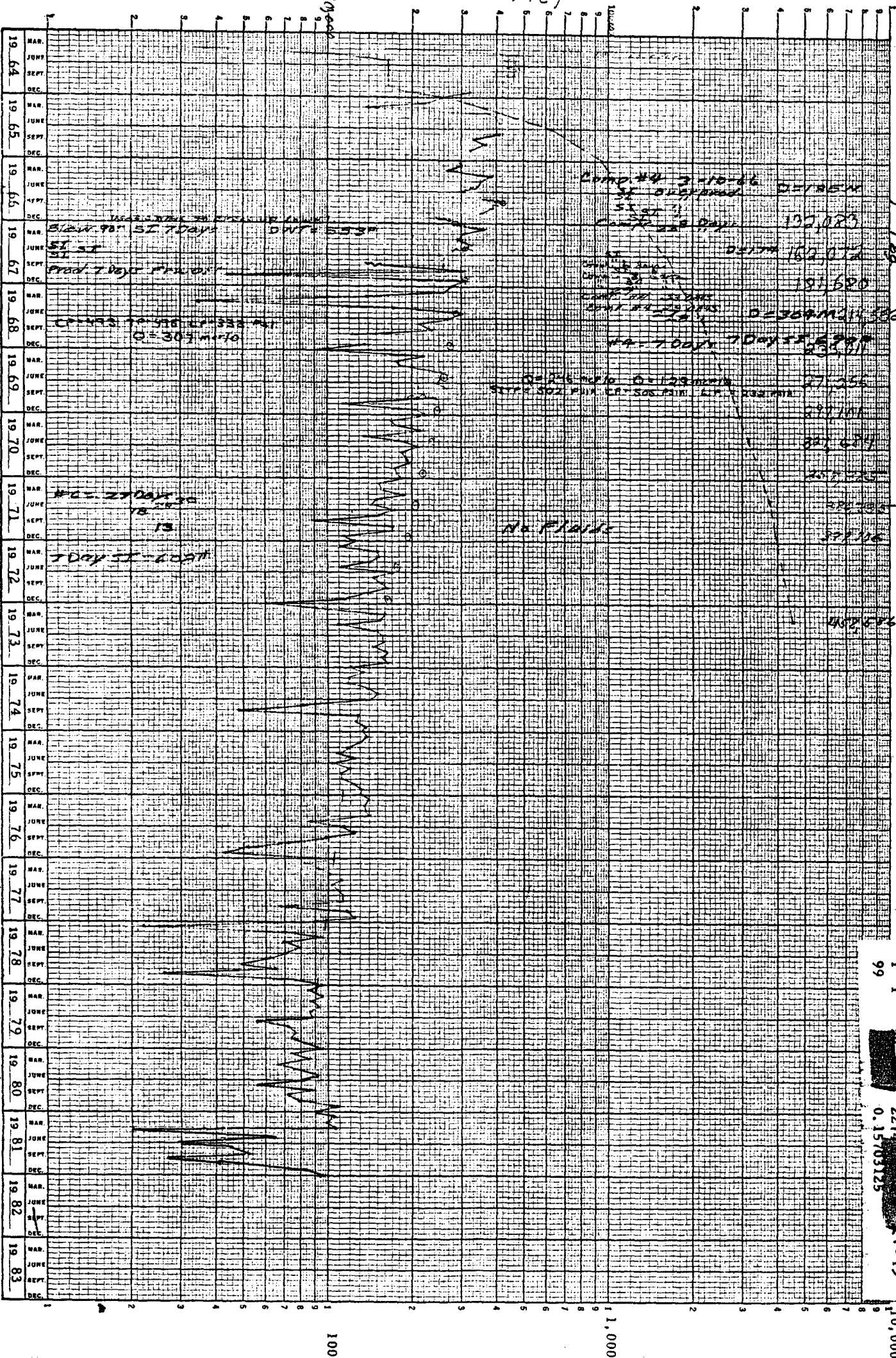
*Barry [Signature]*  
(Signature)  
*Barry [Signature]*  
Title  
3/30/32

HURON 4-2  
Section 2, T26N, R4W

RE: Rule 303, Paragraph 2, Requirement (e)

We are submitting production decline curves for the Basin Dakota and Tapacito Pictured Cliffs. The production of the Huron 4-2 should be substantially increased by commingling the Dakota and Pictured Cliffs formations within the well-bore. The well will be able to utilize the full volume of the casing gas, which will allow the Dakota formation to produce more condensate by producing the well behind a stop clock.

Cum. MCF



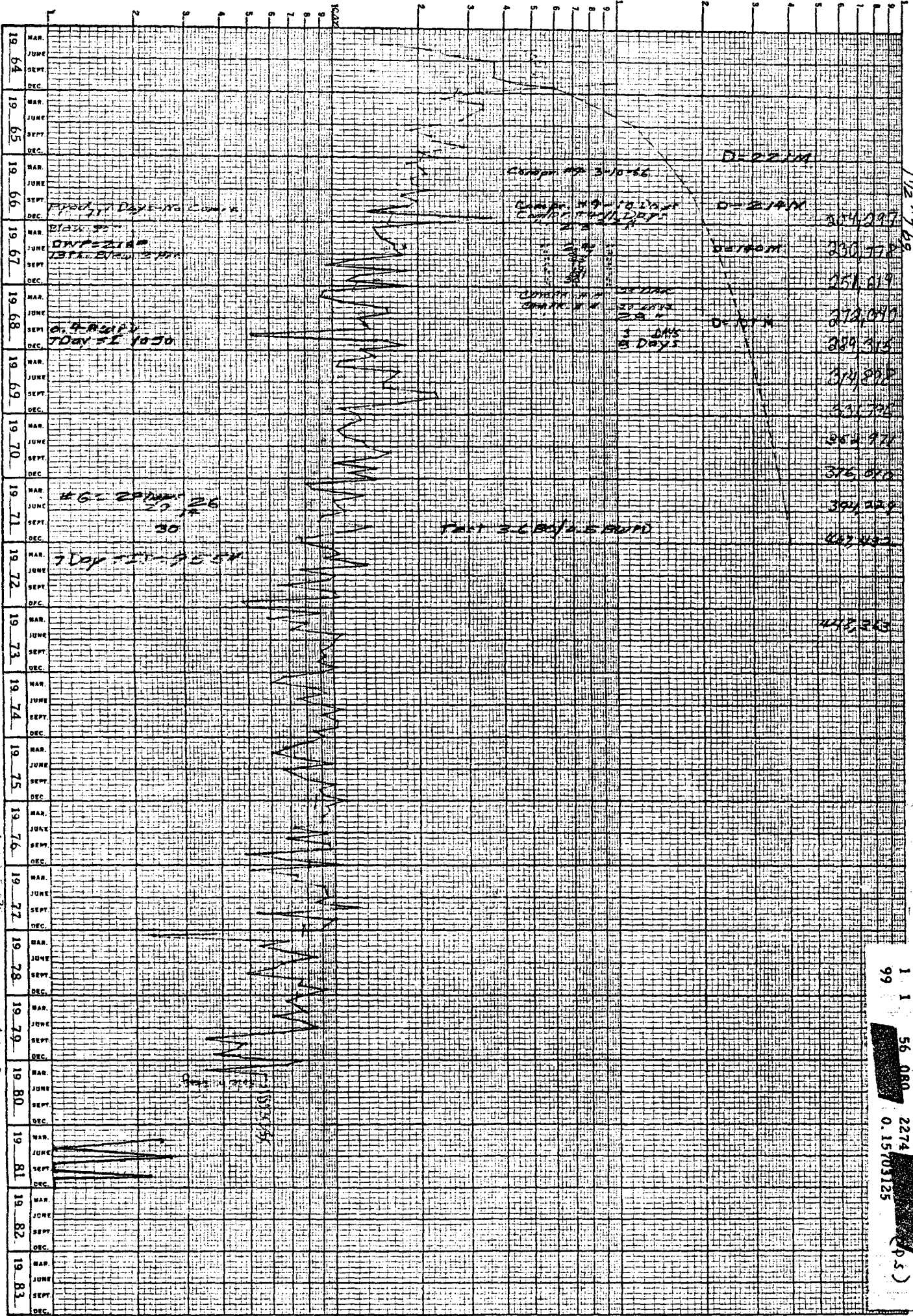
Well #48C

CONSOLIDATED OIL & GAS, INC.

1 1 56.00 2274 0.15703125 (P4)



Cum. MCF



Huron #4 Dakota

CONSOLIDATED OIL & GAS, INC.

1 1 56.080 2274 0.15703125 (P.5)

- MCF / PRODUCING DAY -



HURON 4-2  
Section 2, T26N, R4W

RE: Rule 303C, Paragraph 2, Requirement (f)

Due to the economics involved in acquiring measured bottom-hole pressures with a hole in the Dakota production tubing; we are submitting the latest Packer Leakage Test which did not fail.

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Consolidated Oil & Gas Inc Lease Huron Well No. 4 (PD)  
Location of Well: Unit p Sec. 2 Twp. 26 Rge. 4 County Rio Arriba  
Name of Reservoir or Pool Pictured Cliffs Type of Prod. Gas Method of Prod. Flowing Prod. Medium Tbg.  
(Oil or Gas) (Flow or Art. Lift) (Tbg. or Csg.)

Upper Completion	<u>Pictured Cliffs</u>	<u>Gas</u>	<u>Flowing</u>	<u>Tbg.</u>
Lower Completion	<u>Dakota</u>	<u>Gas</u>	<u>Flowing</u>	<u>Tbg.</u>

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
	<u>3-31-80</u>	<u>7-Days</u>	<u>548</u>	<u>No</u>
Lower Compl	Hour, date Shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
	<u>3-31-80</u>	<u>7-Days</u>	<u>675</u>	<u>No</u>

FLOW TEST NO. 1

Commenced at (hour, date)*		<u>4-7-80</u>		Zone producing ( <del>Upper</del> or Lower):	
Time (hour, date)	Lapsed time since*	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		
<u>4-5-80</u>	<u>5-Days</u>	<u>476</u>	<u>637</u>		<u>Both Zones Shut In</u>
<u>4-6-80</u>	<u>6-Days</u>	<u>546</u>	<u>651</u>		<u>Both Zones Shut In</u>
<u>4-7-80</u>	<u>7-Days</u>	<u>548</u>	<u>675</u>		<u>Both Zones Shut In</u>
<u>4-8-80</u>	<u>1-Day</u>	<u>548</u>	<u>221</u>		<u>Lower Zone Flowing</u>
<u>4-9-80</u>	<u>2-Days</u>	<u>549</u>	<u>249</u>		<u>Lower Zone Flowing</u>

Production rate during test

Oil: 88 BOPD based on MCFPD Bbls. in 88 Hrs. Grav. 88 GOR 88  
Gas: 88 MCFPD; Tested thru (~~Orifice~~ or Meter): 88 Meter

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
Lower Compl	Hour, date Shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)

FLOW TEST NO. 2

Commenced at (hour, date)**				Zone producing (Upper or Lower):	
Time (hour, date)	Lapsed time since **	Pressure		Prod. Zone Temp.	Remarks
		Upper Compl.	Lower Compl.		

Production rate during test

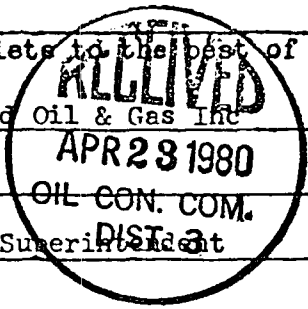
Oil: 88 BOPD based on MCFPD Bbls. in 88 Hrs. Grav. 88 GOR 88  
Gas: 88 MCFPD; Tested thru (Orifice or Meter): 88

REMARKS: High line pressure 4-9-80

I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Approved: APR 23 1980 19  
New Mexico Oil Conservation Commission  
By Frank J. Chang  
Title SUPERVISOR DISTRICT # 3

Operator Consolidated Oil & Gas Inc  
By APR 23 1980  
Title Production Superintendent  
Date APR 23 1980

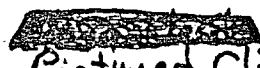


1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Commission.
2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Commission in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.
3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.
4. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: If, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a pipeline connection the flow period shall be three hours.
5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.
6. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. Procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1 except that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

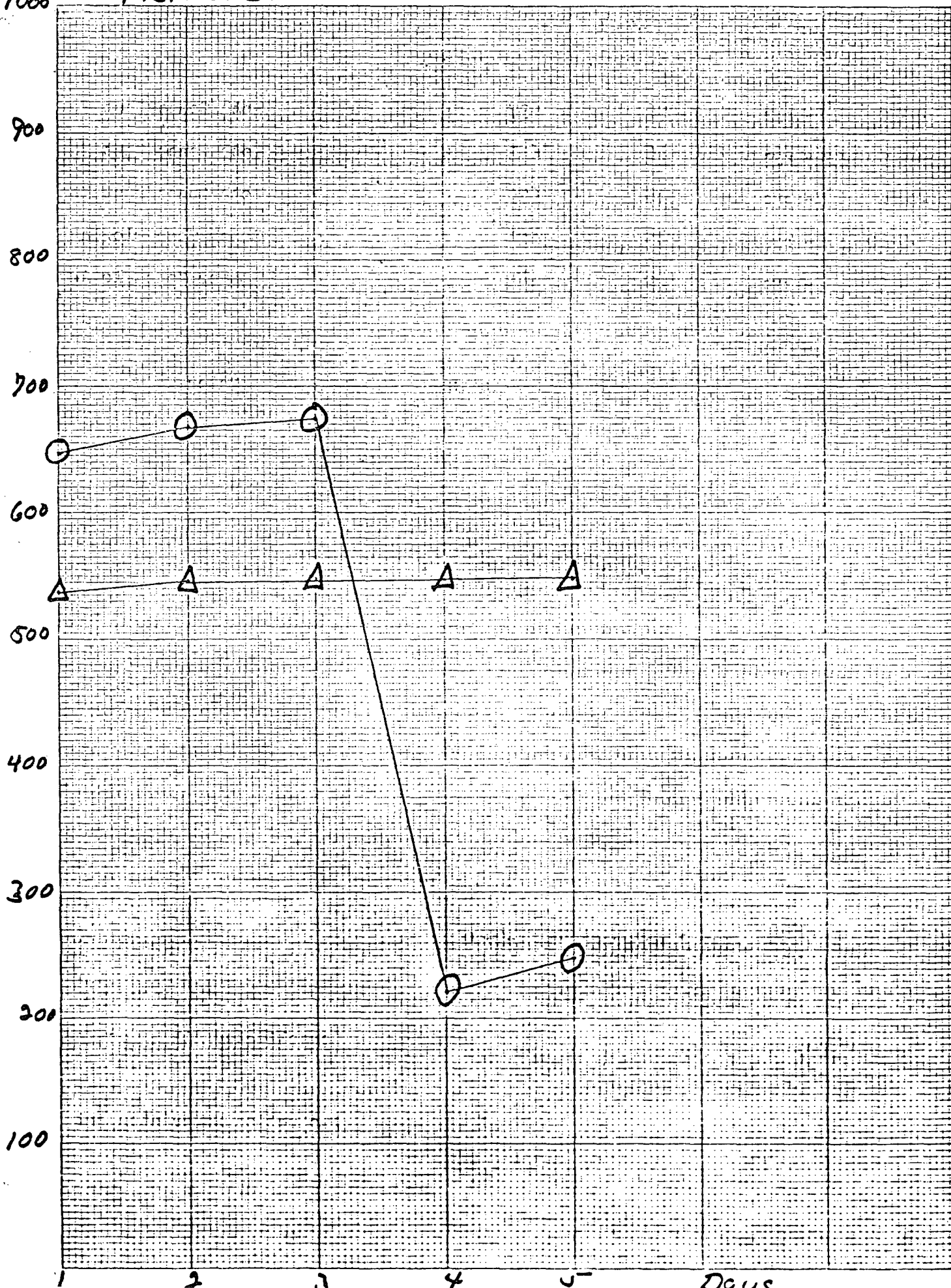
Pressures for gas zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3-hour tests: immediately prior to the beginning of each flow-period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges, the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the New Mexico Oil Conservation Commission on Northwest New Mexico Packer Leakage Test Form Revised 11-1-58, with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only). A pressure versus time curve for each zone of each test shall be constructed on the reverse side of the Packer Leakage Test Form with all deadweight pressure points taken indicated thereon. For oil zones, the pressure curve should also indicate all key pressure changes which may be reflected by the recording gauge charts. These key pressure changes should also be tabulated on the front of the Packer Leakage Test Form.

1000  Pictured Cliffs

O - Dakota



HURON 4-2  
Section 2, T26N, R4W

RE: Rule 303C, Paragraph 2, Requirement (g)

Dakota Oil:	PC:
Sg 61.2 BS&W 0.01	Makes no oil

A laboratory water analysis for the Pictured Cliffs formation is attached. The Dakota makes no water.

## DIVISION LABORATORY

FARMINGTON, NEW MEXICO

LABORATORY WATER ANALYSIS

Report No: \_\_\_\_\_

To: Consolidated Oil And GasDate: 2/16/82P.O. Box 2038Farmington NM 87401Attn: Barney Jones

This report is the property of National Cementers Corp. and neither it nor any part thereof is to be published or disclosed without first securing the express approval of laboratory management; it may, however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from National Cementers Corporation.

Submitted By: Barney JonesDate Received: February 4, 1982Well No: Huron #4Depth: 8376'Formation: P.C.Location: Sec 2, T26N, R4W

Resistivity	<u>~45</u>	ohms/m <sup>2</sup> /m
Temperature	<u>74°F</u>	
Specific Gravity(Sp.Gr.)	<u>1.000</u>	
pH	<u>6.9</u>	
Total Dissolved Solids	<u>152</u>	parts per million*
Calcium (Ca <sup>++</sup> )	<u>11</u>	parts per million
Magnesium (Mg <sup>++</sup> )	<u>2</u>	parts per million
Chlorides (Cl <sup>-</sup> )	<u>10</u>	parts per million
Carbonates (CO <sub>3</sub> <sup>--</sup> )	<u>0</u>	parts per million
Bicarbonates (HCO <sub>3</sub> <sup>-</sup> )	<u>51</u>	parts per million
Sulfates (SO <sub>4</sub> <sup>--</sup> )	<u>46</u>	parts per million
Iron (Fe <sup>+++</sup> )	<u>NIL</u>	parts per million
Potassium (K <sup>+</sup> )	<u>NIL</u>	parts per million
Sodium (Na <sup>+</sup> )(Difference)	<u>32</u>	parts per million
Stability Index (SI)	<u>Not required</u>	

REMARKS: \_\_\_\_\_

\* indicates parts per million by weight; uncorrected for Specific Gravity

LABORATORY ANALYST:

Clarion CochranRespectfully submitted,  
National Cementers CorporationBy: Clarion A Cochran

HURON 4-2  
Section 2, T26N, R4W

RE: Rule 303C, Paragraph 2, Requirement (h)

We believe the production will substantially increase by commingling Dakota and Pictured Cliffs gas within the well bore. The well will be able to utilize the full volume of the casing gas, which will allow the well to lift the condensate that is logging off the Dakota. If permission is granted to commingle, we would like to run one string of 1½" production tubing and produce the well behind a stop clock, which should increase gas and oil production, thereby conserving energy.

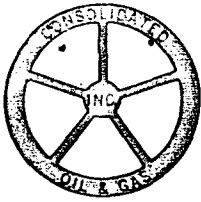
HURON 4-2

Section 2, T26N, R4W

RE: Rule 303C, Paragraph 2, Requirement (i)

We would like to allocate 20% gas and 100% oil to the Basin  
Dakota and 80% gas to the Tapacito Pictured Cliffs formations,  
based on production decline curves and previous well tests.





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P.O. BOX 2038  
FARMINGTON, NEW MEXICO 87401

UNITED STATES DEPARTMENT OF INTERIOR  
Office of the Secretary  
Minerals Management Service  
Drawer 600  
Farmington, New Mexico

Gentlemen;

Application for down-hole commingling, Rule 303C, State  
of New Mexico Oil Conservation Commission.

HURON 4-2, Basin Dakota/Tapacito Pictured Cliffs  
Unit P, Section 2, T26N, R4W, Rio Arriba  
County, New Mexico

Consolidated Oil & Gas, Inc. has submitted an application  
for the down-hole commingling of our Huron 4-2, Unit P, Section 2,  
T26N, R4W, 900' F/SL, 1190' F/EL, NMPM, Rio Arriba County,  
New Mexico.

Consolidated is notifying your office of this application  
as stated in Rule 303C.

Best Regards,

BARNEY JONES  
Drilling Foreman

BJ/ke

HURON 4-2

Offset Operators

EL PASO NATURAL GAS  
Attn: Don Walker  
P.O. BOX 289  
Farmington, New Mexico 87401

AMOCO PRODUCTION COMPANY  
501 Airport Road  
Farmington, New Mexico 87401

SUPRON ENERGY CORP.  
Attn: Rudy Motto  
P.O. Box 808  
Farmington, New Mexico 87401

SOUTHLAND ROYALTY  
Attn: Kurt Parsons  
P.O. Drawer 570  
Farmington, New Mexico 87401

WAIVER OF OBJECTION  
AND CONSENT TO COMMINGLE THE  
DUAL COMPLETION

FOR CONSOLIDATED OIL & GAS, INC.

THE UNDERSIGNED, as an offset operator/lease holder of  
a lease offsetting:

HURON 4-2 - Basin Dakota/Tapacito Pictured Cliffs  
Unit P, Sec. 2, T26N, R4W,  
Rio Arriba County, New Mexico

does hereby acknowledge receipt of letter requesting approval  
of commingling of the above captioned well.

The undersigned hereby waives any objection to this  
application and voluntarily consents to the commingling of the  
above captioned well.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 1982.

Signed: \_\_\_\_\_

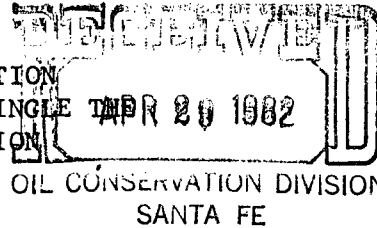
Name: \_\_\_\_\_

Title: \_\_\_\_\_

Firm: \_\_\_\_\_

Please find enclosed self-addressed envelopes. Mail copy to  
Frank Chavez, NMOCC, 1000 Brazos Rd., Aztec, NM and Barney Jones,  
Consolidated Oil & Gas, P.O. Box 2038, Farmington, New Mexico

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AND CONSENT TO COMMINGLE  
DUAL COMPLETION



FOR CONSOLIDATED OIL & GAS, INC.

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a lease offsetting:

HURON 4-2 - Basin Dakota/Tapacito Pictured Cliffs  
Unit P, Sec. 2, T26N, R4W,  
Rio Arriba County, New Mexico

does hereby acknowledge receipt of letter requesting approval  
of commingling of the above captioned well.

The undersigned hereby waives any objection to this  
application and voluntarily consents to the commingling of the  
above captioned well.

Dated this 26 day of April, 1982.

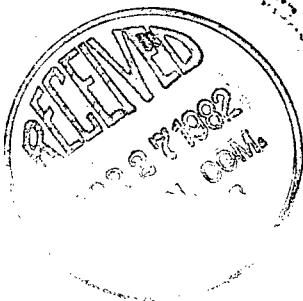
Signed: CC Parsons

Name: C.C. Parsons

Title: District Production Manager

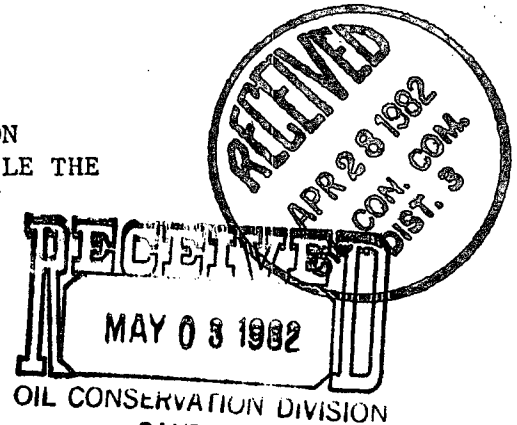
Firm: Southland Royalty Company

Please find enclosed self-addressed envelopes. Mail copy to  
Frank Chavez, NMOCC, 1000 Brazos Rd., Aztec, NM and Barney Jones,  
Consolidated Oil & Gas, P.O. Box 2038, Farmington, New Mexico



WAIVER OF OBJECTION  
AND CONSENT TO COMMINGLE THE  
DUAL COMPLETION

FOR CONSOLIDATED OIL & GAS, INC.



THE UNDERSIGNED, as an offset operator/lease holder of  
a lease offsetting:

HURON 4-2 - Basin Dakota/Tapacito Pictured Cliffs  
Unit P, Sec. 2, T26N, R4W,  
Rio Arriba County, New Mexico

does hereby acknowledge receipt of letter requesting approval  
of commingling of the above captioned well.

The undersigned hereby waives any objection to this  
application and voluntarily consents to the commingling of the  
above captioned well.

Dated this 27th day of April, 1982.

Signed: Don Walker  
Name: D. C. Walker  
Title: Regional Manager of Drilling  
Firm: El Paso Natural Gas Company

Please find enclosed self-addressed envelopes. Mail copy to  
Frank Chavez, NMOCC, 1000 Brazos Rd., Aztec, NM and Barney Jones,  
Consolidated Oil & Gas, P.O. Box 2038, Farmington, New Mexico



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(303) 861-5252

P.O. BOX 2038  
FARMINGTON, NEW MEXICO 87401

May 24, 1982

STATE OF NEW MEXICO  
Energy and Minerals Department  
P.O. Box 2088  
Santa Fe, New Mexico

Gentlemen;

Reference is made to our application for down hole commingling the Basin Dakota and Tapacito Pictured Cliffs formations within the well bore of the Huron 4-2, Section 2, T26N, R4W, Rio Arriba County, New Mexico.

The ownership, working interest, royalty and overriding royalty, is common for both zones.

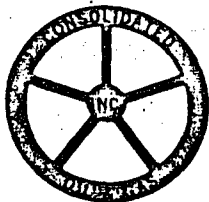
Yours truly,

CONSOLIDATED OIL & GAS, INC.

BARNEY JONES  
Drilling Foreman

BJ/ke

CC: Frank Chavez, NMOCC, Aztec, NM

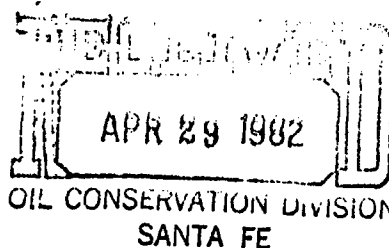


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P.O. BOX 2038  
FARMINGTON, NEW MEXICO 87410

STATE OF NEW MEXICO  
Energy & Minerals Dept.  
Oil Conservation Division  
1000 Brazos Road  
Aztec, New Mexico



Attn: Mr. Frank Chavez

Dear Mr. Chavez;

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The well has apparently developed a hole in the Dakota production tubing and will no longer pass the New Mexico State Packer Leakage Test. We are currently producing Dakota oil through the Pictured Cliffs 1" production tubing. If the well is shut in the pressures equalize. Dakota tubing 495 psi and PC casing 495 psi respectively.

The Dakota has been shut in since April 1980 and will log off with condensate if we try to produce this zone. The Dakota will produce 12 hours if the well is shut in for 96 - 120 hours.

Due to the economics involved in working over an old well that has not been re-entered; we would like to commingle both zones, allocating 20% gas and 100% oil to the Basin Dakota and 80% gas to the Tapacito Pictured Cliffs formations, based on production curves and well tests.

Enclosed please find information requested.

Sincerely,

BARNEY JONES  
Drilling Foreman

*Is the ownership,  
working interest, royalty,  
and overriding royalty common  
for both zones?  
M. Stogner 5/19/82*

BJ/ke  
Encls.





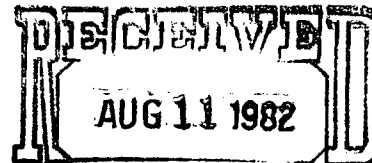
STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

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

OIL CONSERVATION DIVISION  
BOX 2088  
SANTA FE, NEW MEXICO 87501

DATE August 5, 1982

RE: Proposed MC \_\_\_\_\_  
Proposed DHC α \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_



OIL CONSERVATION DIVISION  
SANTA FE

Gentlemen:

I have examined the application dated April 29, 1982  
for the Consolidated Oil & Gas Inc. Nمون #4 P-2-26N-4W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve, requiring highest tubing perf. to be no higher than  
200 feet above Dakota perf.

Yours truly,

Frank J. Chang