

Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Mr. Frank Chavez
New Mexico Oil Conservation Division
1000 Rio Brazos Rd.
Aztec, New Mexico 87410

Re: Northwest 4
890' FNL & 1840' FWL
Sec 8B, T26N, R4W
Rio Arriba Co., New Mexico

Dear Mr. Chavez;

Consolidated Oil & Gas, Inc. hereby requests authorization to down-hole commingle the Basin Dakota and B S Mesa Gallup formations within the above referenced well.

This well failed the 1984 New Mexico Packer Leakage Test from an apparent hole in the 1 1/2" Dakota production tubing. The Dakota averaged 128 MCFD and 1.3 BOPD from 1964 to present. The Gallup averaged 52 MCFD and 0.2 BOPD during the same period.

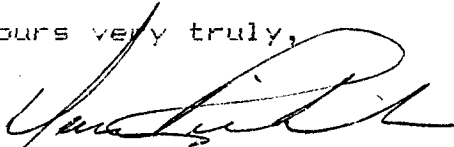
The ownership, working interest, royalty and overriding royalty is common for both zones.

Due to the economics involved in working over an old well, we would like to commingle the Dakota and Gallup by producing both zones through one string of 1 1/2" production tubing already set at the Dakota perforations.

Consolidated would like to allocate 70% gas and 90% oil to the Dakota and 30% gas and 10% oil to the Gallup formations, based on G O R tests and the well's production history.

Enclosed please find requested information.

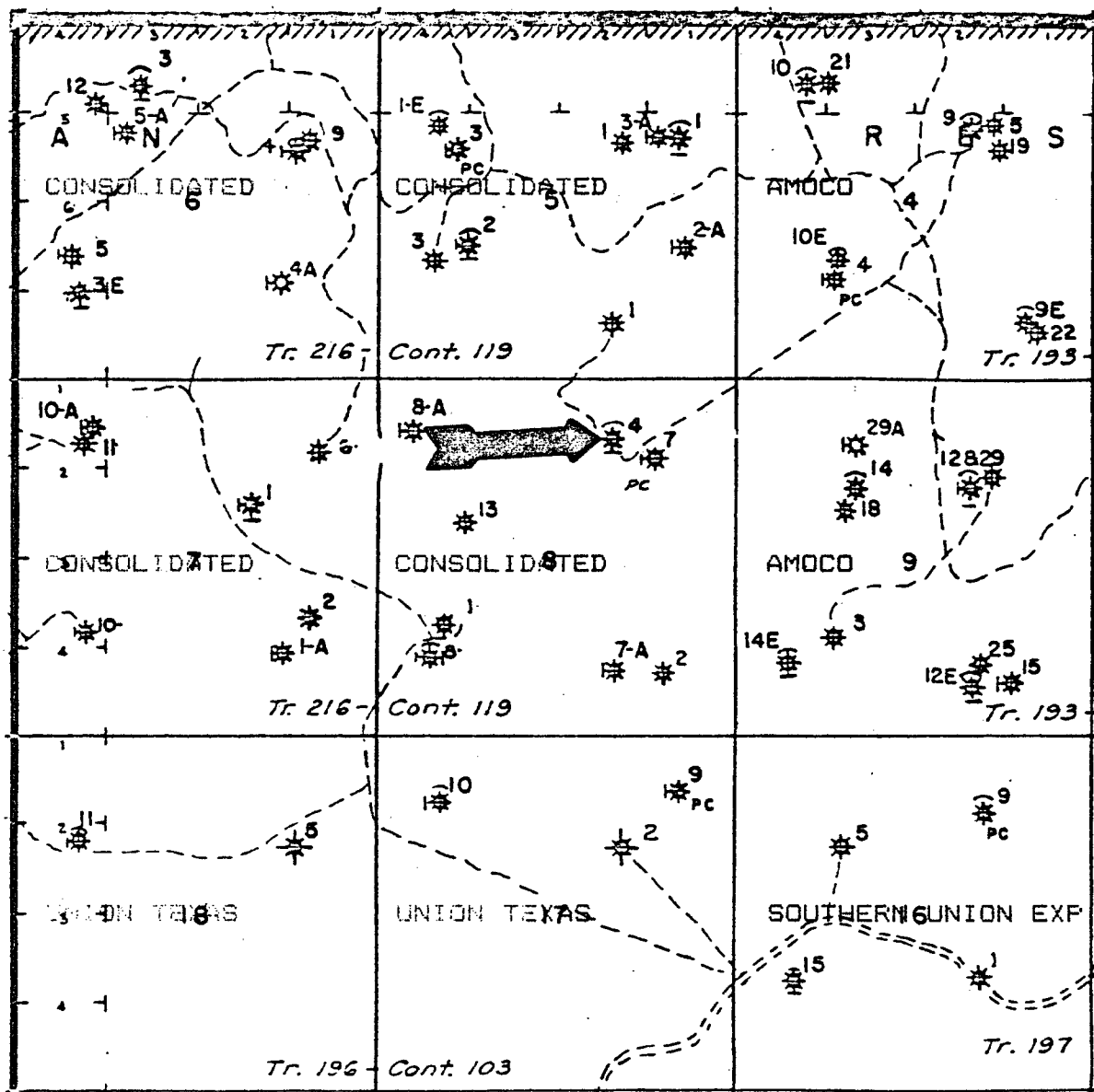
Yours very truly,


Dale Richardson
Production & Drilling Superintendent

DER:WLC:wc
Enclosures
cc: N. M. Oil Conservation Division, Santa Fe

1984 PACKER LEAKAGE TEST

CONSOLIDATED OIL & GAS, INC.		WELL NAME AND NUMBER NORTHWEST 4		UNIT LETTER L	SEC.-TWP.-RGE. 8-26-4	COUNTY RA
UPPER COMPLETION GALLUP		PRODUCING THRU	LOWER COMPLETION DAKOTA		PRODUCING THRU	
DATE	UPPER ZONE SHUT-IN—5 DAYS			LOWER ZONE SHUT-IN—3 DAYS		
9-10	SHUT BOTH ZONES IN			SHUT BOTH ZONES IN		
	CSG	TBG		TBG		
9-11	25	722	90		742	
9-12	26	750	110		762	
9-13	27	770	190		780	
TURN ON LOWER ZONE AFTER CARD SIGNED				LOWER ZONE FLOW		
28	UPPER ZONE REMAINS SHUT-IN		Failed	DIFFERENTIAL	6.5	FLOWING PRESSURE
9-14	CSG	TBG		STATIC	7.2	
29	UPPER ZONE REMAINS SHUT-IN			DIFFERENTIAL	4.3	FLOWING PRESSURE
9-15	CSG	TBG		STATIC	7.4	
TEST COMPLETED WHEN INITIALED →			PLATE SIZE	1.625	STATIC SPRING	500
REMARKS well checked during flow						AVERAGE RATE 185



Location Plat to Accompany Application
for Administrative Commingling of the

NORTHWEST 4
890' FNL & 1840' FWL
Sec 8B, T26N, R4W
Rio Arriba Co., New Mexico

Section A.

Date April 2, 1964

Operator CONSOLIDATED OIL & GAS, INC. Lease NORTHWEST FEDERAL
 Well No. 4-8 Unit Letter B Section 8 Township 26 NORTH Range 4 WEST, NMPM
 Located 890 Feet From NORTH Line, 1840 Feet From EAST Line
 County RIO ARriba G. L. Elevation 7173.0 Dedicated Acreage 320 Acres
 Name of Producing Formation DAKOTA Pool BASIN

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?
 Yes X No
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes No . If answer is "yes", Type of Consolidation.
3. If the answer to question two is "no", list all the owners and their respective interests below:

Owner

Land Description

Section B.

Note: All distances must be from outer boundaries of section.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

Consolidated Oil & Gas, Inc.

(Operator)

(Representative)

W. H. Williams

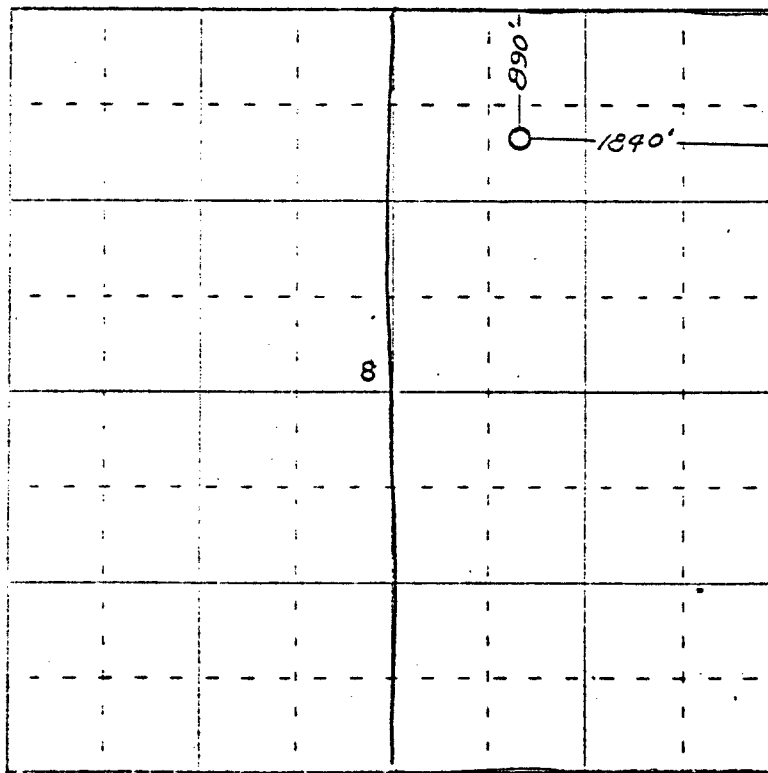
(Address)

Chief Engineer

4150 East Mexico Avenue

Denver 22, Colorado

Ref: GLO plated dated Nov. 4, 1932



0 250 500 750 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000

Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 5 March 1964

James O. Love
 Professional Engineer and/or Land Surveyor
 License No. 1463
 New Mexico Reg. No. 1463

Section A.

Date April 2, 1964

Operator CONSOLIDATED OIL & GAS, INC. Lease NORTHWEST FEDERAL
 Well No. 4-8 Unit Letter B Section 8 Township 26 NORTH Range 4 WEST, NMPM
 Located 890 Feet From NORTH Line, 1840 Feet From EAST Line
 County PIO ARriba G. L. Elevation 7173.0 Dedicated Acreage 160 Acres
 Name of Producing Formation GALLUP Pool UNDESIGNATED

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?
 Yes X No
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communization agreement or otherwise? Yes No . If answer is "yes", Type of Consolidation.

2. If the answer to question two is "no", list all the owners and their respective interests below:

Owner

Land Description

Section B.

Note: All distances must be from outer boundaries of section.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

Consolidated Oil & Gas, Inc.

(Signature)
(Representative)

W. H. Williams

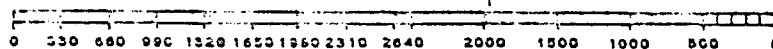
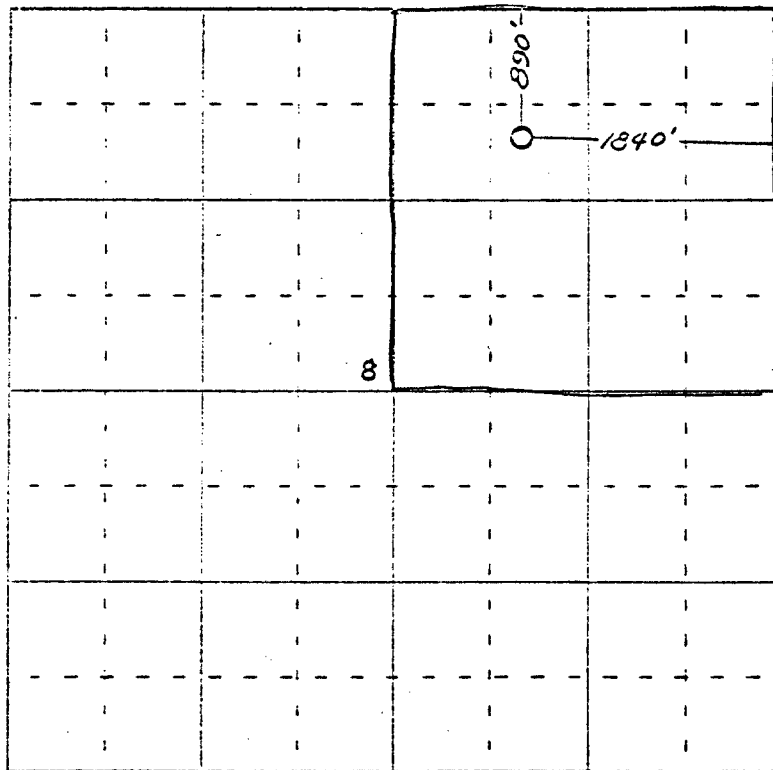
(Address)

Chief Engineer

4150 East Mexico Avenue

Denver 22, Colorado

Ref: GLO plated dated Nov. 4, 1882



Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 5 March 1964

(Signature)
 Registered Professional Engineer and/or Land Surveyor
P. Loese
 New Mexico Reg. No. 1453

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (d)

We would like to request an exception to rule 303C, Para. 2, Requirement (d). A current (within 30 days) 24 hour productivity test of the Dakota and Gallup zones would not reflect accurate production potential due to the leak in the Dakota tubing string. We are submitting representative G O R tests of each zone over a 24 hour period in 1982 and 1983 based on production. These production tests were recorded when the other zone was shut in for lack of demand.

Form C-116
Revised 10-1-78

County
Rio Arriba

Special X

(Täfel)

Form C-116
Revised 10-1-78

GAS-OIL RATIO TESTS

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

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

(Signature)

(Tiller)

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (e)

We are submitting production decline curves for the Basin Dakota
and B S Mesa Gallup.

Consolidated Oil & Gas, Inc.
Dual Completion Schematic for
Commingling Application

Elevation: 7185'KB
7173'GL

NORTHWEST 4
Sec 8B, T26N, R4W
Rio Arriba Co., NM
October 17, 1984

12-3/4", 40# csg @ 308'
Cmt w/ 275 sx Regular w/
2% CaCl₂. Cmt top at
surface.

17-1/2" hole to 308'

7-5/8", 26.4# csg @ 4110' <
Cmt w/ 195 sx 50/50 Pozmix
w/ 4% gel. Tail-in w/ 50 sx
Cl "C" w/ 2% CaCl₂. Cmt top
calc at 3100'.

5-1/2" liner top @
4008'

10-5/8" hole to 4110'

Frac Gallup w/ 46,070 gal
oil & 25,000 lbs sand

Gallup perf interval:
7652-7614'
(72 holes)

NOTE: Approval to surface
commingle oil production
from the Dakota & Gallup
was made on 8-27-64.
(Admin. Order # MC-1528)

Baker Retrieval-a-D
pkr @ 7900'

1-1/2" tbg @ 8026'

Frac Dakota w/ 130,000 gal
water & 93,000 lbs sand

Dakota perf interval:
8315-8146' (144 holes)

PBTD @ 8349'
Clean out to 8335'

5-1/2", 17# & 15.5# csg
@ 8385'. Cmt w/ 320 sx
50/50 pozmix w/ 4% gel.
Cmt top calc at 4008'.

6-3/4" hole to 8385'
Drillers TD - 8385'
Loggers TD - 8400'

[illegible]

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 8750

Form C-122-A
Revised 10-1-78STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTWELL DELIVERABILITY TEST REPORT FOR 19 81

POOL NAME Basin	POOL SLOPE n= .75	FORMATION Dakota	COUNTY Rio Arriba
--------------------	----------------------	---------------------	----------------------

86525

COMPANY Consolidated Oil and Gas, Inc.			WELL NAME AND NUMBER Northwest #4 DK		
UNIT LETTER B	SECTION 8	TOWNSHIP 26	RANGE 4	PURCHASING PIPELINE Northwest Pipeline Corporation	
CASING O.D. - INCHES 5.500	CASING I.D. - INCHES 5.012	SET AT DEPTH - FEET 8385'	TUBING O.D. - INCHES 1.990	TUBING I.D. - INCHES 1.610	TOP - TUBING PERF. - FEET 8027'
GAS PAY ZONE FROM 8146' TO 8315'		WELL PRODUCING THRU CASING TUBING X		GAS GRAVITY .731	GRAVITY Z LENGTH 5868'
DATE OF FLOW TEST FROM May 17 TO May 25			DATE SHUT-IN PRESSURE MEASURED June 1, 1981		

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.)
	221	215	215	0	6	188
(h) Corrected Meter Pressure (g + e)	(i) Avg. Wellhead Press. $P_i = (h + f)$	(j) Shut-in Casing Pressure (DWt)	(k) Shut-in Tubing Pressure (DWt)	(l) P_c = higher value of (j) or (k)	(m) Del. Pressure $P_d = 50\% P_c$	(n) Separator or Dehydrator Pr. (DWt) for critical flow only
188	194		694	694	347	

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
85	1.0000	1.0000	Q = 85 MCF/D

WORKING PRESSURE CALCULATION

$(1 - e^{-x})$	$(P_c Q_m)^2 (1000)$	$R^2 = (1 - e^{-x}) (P_c Q_m)^2 (1000)$	P_i^2	$P_w^2 = P_i^2 + R^2$	$P_w = \sqrt{P_w^2}$
.347	1958	679	37636	38315	196

DELIVERABILITY CALCULATION

$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{\frac{1}{2}} = 85$	$\left[\frac{361227}{443321} \right]^{\frac{1}{2}} = .8148$	$.8576$	73 MCF/D
---	--	---------	------------

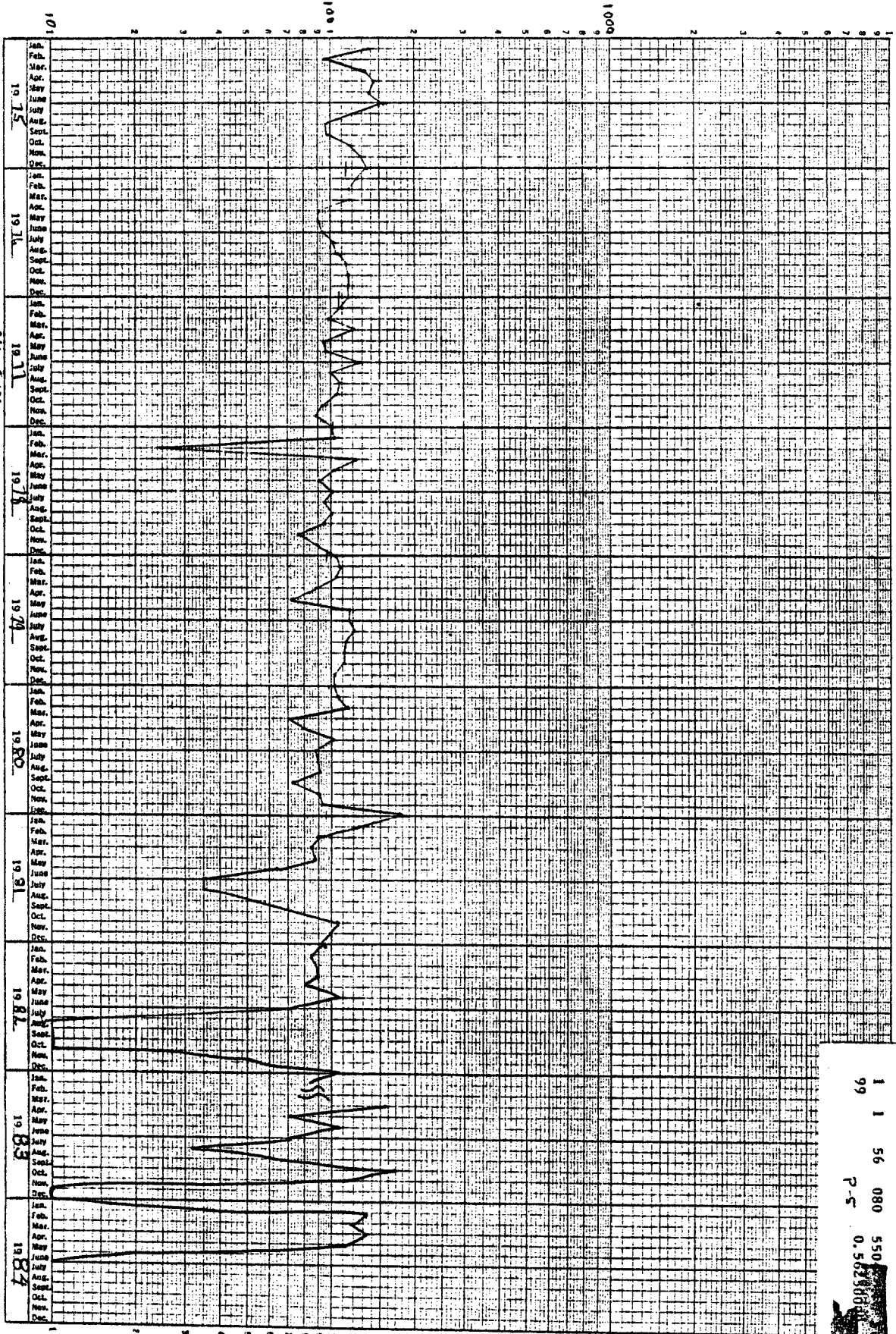
REMARKS:

SUMMARY

Item h	188	Psia
P_c	694	Psia
Q	85	MCF/D
P_w	196	Psia
P_d	347	Psia
D	73	MCF/D

Company Consolidated Oil and Gas, Inc.
By *[Signature]*
Title
Witnessed By
Company

JTH/skw



Oct. 5, 1915
2-12-79 PMA

Dec. 2, 1982
CMA 10-23-80

CONSOLIDATED OIL & GAS, INC.

1 1 56 080 550
99 P-5 0.562500

[illegible]

OIL CONSERVATION DIVISION

P. O. BOX 2088

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87500

Form C-122-A
Revised 10-1-78WELL DELIVERABILITY TEST REPORT FOR 19 81

POOL NAME B. S. Mesa	POOL SLOPE n = .75	FORMATION Gallup	COUNTY Rio Arriba
-------------------------	-----------------------	---------------------	----------------------

86524

COMPANY Consolidated Oil and Gas, Inc.			WELL NAME AND NUMBER Northwest #4 GL		
UNIT LETTER B	SECTION 8	TOWNSHIP 26	RANGE 4	PURCHASING PIPELINE Northwest Pipeline Corporation	
CASING O.D. - INCHES 5.500	CASING I.D. - INCHES 5.012	SET AT DEPTH - FEET 8385'	TUBING O.D. - INCHES 1.315	TUBING I.D. - INCHES 1.049	TOP - TUBING PERF. - FEET 7619'
GAS PAY ZONE FROM 7614' TO 7652'		WELL PRODUCING THRU CASING TUBING X		GAS GRAVITY .735	GRAVITY X LENGTH 5600'
DATE OF FLOW TEST FROM May 17 TO May 25			DATE SHUT-IN PRESSURE MEASURED June 1, 1981		

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.)
338	224	215	217	-2	9	186
(h) Corrected Meter Pressure (g + e)	(i) Avg. Wellhead Press. $P_t = (h + f)$	(j) Shut-in Casing Pressure (DWt)	(k) Shut-in Tubing Pressure (DWt)	(l) P_c = higher value of (j) or (k)	(m) Del. Pressure $P_d = \frac{80}{\%P_c}$	(n) Separator or Dehydrator Pr. (DWt) for critical flow only
184	193	686	686	686	549	

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
37	.9908	.9954	Q = 37 MCF/D

WORKING PRESSURE CALCULATION

$(1 - e^{-n})$	$(P_c Q_m)^2 (1000)$	$R^2 = (1 - e^{-n}) (P_c Q_m)^2 (1000)$	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.334	3477	1161	37249	38410	196

DELIVERABILITY CALCULATION

$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 37 \left[\frac{169195}{432186} \right]^n = .3915 = .4949 = 18 \text{ MCF/D}$

REMARKS:

SUMMARY

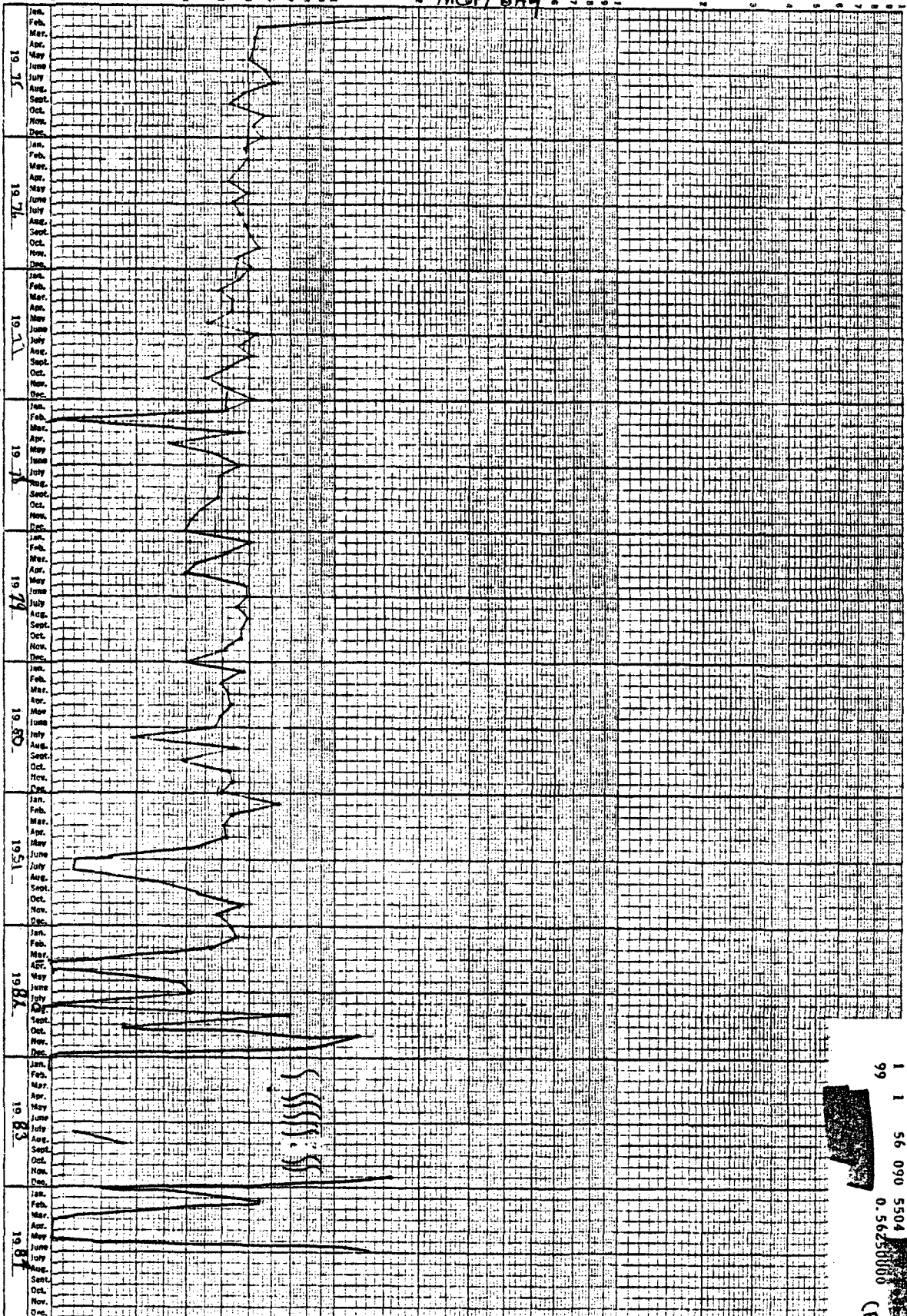
Item h	184	Psia
P_c	686	Psia
Q	37	MCF/D
P_w	196	Psia
P_d	549	Psia
D	18	MCF/D

Company Consolidated Oil and Gas, Inc.
 By [Signature]
 Title _____
 Witnessed By _____
 Company _____

JTH/skw

DCI = 9.657

DCI = 5.172
 OR 10-23-21



CONSOLIDATED OIL & GAS, INC.

1 1 56 090 5504
 99 0.56250000 (P-2)

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (f)

Due to the economics involved in acquiring measured bottom-hole pressures with a hole in the production tubing, we are submitting the latest Packer Leakage Test which did not fail in 1983.

sub 7-19-83

OPERATOR COG		WELL NAME AND NUMBER Northwest 4		UNIT LETTER B	SEC.-TWP.-RGL. 8 26 4	COUNTY RA
UPPER COMPLETION GL		PRODUCING THRU TBNG		LOWER COMPLETION DK		PRODUCING THRU TBNG
DATE	UPPER ZONE SHUT-IN - 5 DAYS		INITIAL	LOWER ZONE SHUT-IN - 3 DAYS		
	SHUT BOTH ZONES IN			SHUT BOTH ZONES IN		
	CSG	TBG		TBG		
6-15-83	590	510		✓ 490		
6-16-83	690	563		✓ 690		
6-17-83	260	742		✓ 742		
TURN ON LOWER ZONE AFTER CARD SIGNED				LOWER ZONE FLOW		
6-18-83	UPPER ZONE REMAINS SHUT-IN			DIFFERENTIAL 6.5		FLOWING PRESSURE
	CSG 763	TBG 745		STATIC 6.1		CHOKED 329
6-19	UPPER ZONE REMAINS SHUT-IN			DIFFERENTIAL 6.5		FLOWING PRESSURE
	765	747		STATIC 6.3		CHOKED
TEST COMPLETED WHEN INITIALED →			LH	PLATE SIZE 0.625	STATIC SPRING 500	295
REMARKS:						

170

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (g)

We would like to request an exception to Rule 303C, Para. 2, Requirement (g). Analysis of fluids taken from this well in both zones would not be representative of reservoir fluids in each zone due to the tubing leak. We have not observed any problems with emulsions or precipitates forming in the surface facilities. Offset wells commingled to these two zones have not experienced any apparent problems. The following data is representative of the produced fluids in this well:

	GAS (s.g.)	OIL (API)	B.S. & W. (%)
DAKOTA	.727	62.1	0.6
GALLUP	.694	58.5	0.7

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (h)

We believe production will not decrease by commingling the Dakota and Gallup formations. The well has continued to produce satisfactorily despite existing line pressures and periods of shut in due to no demand. We do anticipate that production will remain the same or increase with additional gas volumes helping to lift produced liquids in the wellbore. Oil production from both zones is already commingled at the surface (Admin. Order # MC-1528). Specific gravity of the Dakota gas is .727 with a heating value of 1220 BTU. Specific gravity of the Gallup gas is .694 with a heating value of 1187 BTU. The price of gas from both zones is currently \$1.15/MCF, so commingling will not reduce the sum of the values of the individual streams.

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (i)

We would like to allocate 70% gas and 90% oil to the Dakota and 30% gas and 10% oil to the Gallup formations, based on previous well production since 1964 and production decline curves. Percent of allocation was arrived from the total production from each zone from 1964 to June 1984. Oil production from the Gallup has dropped slightly in the recent production history of this well. This accounts for the difference in the calculated value of 14% vs 10% for the Gallup zone based on total production.

TOTAL PRODUCTION

	GAS (Mcf)	OIL (Bbls)
DAKOTA	903,528	9,327
GALLUP	370,672	1,576

PERCENT ALLOCATION

	GAS (%)	OIL (%)
DAKOTA	70	90
GALLUP	30	10 *

* Allocation for oil production was established in 1983 and is documented at the NMOCD.

NORTHWEST 4
Sec 8B, T26N, R4W

RE: Rule 303C, Para. 2, Requirement (j)

Certified letters of intent to commingle this well were sent to the attached list of offset operators, including the Bureau of Land Management. Sample copies of the letter and waiver are included.

Consolidated Oil & Gas, Inc.
List of Offset Operators

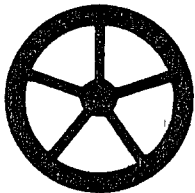
NORTHWEST 4

Amoco Production Company
501 Airport Drive
Farmington, New Mexico 87401

Union Texas Petroleum Company
P. O. Box 1290
Farmington, New Mexico 87499

Southern Union Exploration Company
P. O. Box 2179
Farmington, New Mexico 87499

Bureau of Land Management
Caller Service 4104
Farmington, New Mexico 87499



Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Amoco Production Company
Attn: Mr. Buddy Shaw
501 Airport Dr
Farmington, New Mexico 87401

Re: Waiver for Administrative Approval of Downhole Commingling
for Consolidated Oil & Gas, Inc. Northwest 4, Basin Dakota
& B S Mesa Gallup Dual, 890' FNL & 1840' FWL, Sec 8B, T26N,
R4W, Rio Arriba Co., New Mexico

Dear Mr. Shaw;

Consolidated Oil & Gas, Inc. has submitted an application to the New Mexico Oil Conservation Division, as outlined in NMOCD Rule 303D, to apply for approval to administratively commingle the Dakota and Gallup zones in the subject well. We are notifying your office of our intent, and would like you to sign and return each copy of the Waiver of Objection in the self addressed envelopes.

Please mail the waivers to Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil & Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499.

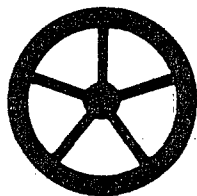
If you have any questions concerning this request please contact Wayne Converse at 632-8056.

Yours very truly,

Dale Richardson
Production & Drilling Superintendent

DER:WLC:wc
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec



Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Union Texas Petroleum Company
Attn: Mr. Rudy Motto
P. O. Box 1290
Farmington, New Mexico 87499

Re: Waiver for Administrative Approval of Downhole Commingling
for Consolidated Oil & Gas, Inc. Northwest 4, Basin Dakota
& B S Mesa Gallup Dual, 890' FNL & 1840' FWL, Sec 8B, T26N,
R4W, Rio Arriba Co., New Mexico

Dear Mr. Motto;

Consolidated Oil & Gas, Inc. has submitted an application to the New Mexico Oil Conservation Division, as outlined in NMOCD Rule 303C, to apply for approval to administratively commingle the Dakota and Gallup zones in the subject well. We are notifying your office of our intent, and would like you to sign and return each copy of the Waiver of Objection in the self addressed envelopes.

Please mail the waivers to Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil & Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499.

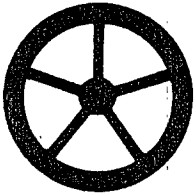
If you have any questions concerning this request please contact Wayne Converse at 632-8056.

Yours very truly,

Dale Richardson
Production & Drilling Superintendent

DER:WLC:wc
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec



Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Southern Union Exploration Company
Attn: Mr. Michael Davies
P. O. Box 2179
Farmington, New Mexico 87499

Re: Waiver for Administrative Approval of Downhole Commingling
for Consolidated Oil & Gas, Inc. Northwest 4, Basin Dakota
& B S Mesa Gallup Dual, 890' FNL & 1840' FWL, Sec 8B, T26N,
R4W, Rio Arriba Co., New Mexico

Dear Mr. Davies;

Consolidated Oil & Gas, Inc. has submitted an application to the New Mexico Oil Conservation Division, as outlined in NMOCD Rule 303C, to apply for approval to administratively commingle the Dakota and Gallup zones in the subject well. We are notifying your office of our intent, and would like you to sign and return each copy of the Waiver of Objection in the self addressed envelopes.

Please mail the waivers to Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil & Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499.

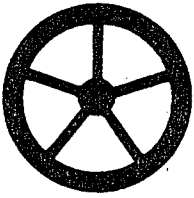
If you have any questions concerning this request please contact Wayne Converse at 632-8056.

Yours very truly,

Dale Richardson
Production & Drilling Superintendent

DER:WLC:wc
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec



Consolidated Oil & Gas, Inc.

P. O. BOX 2038
FARMINGTON, NEW MEXICO 87499
(505) 632-8056

October 17, 1984

Bureau of Land Management
Attn: Area Manager
Caller Service 4104
Farmington, New Mexico 87499

Re: Waiver for Administrative Approval of Downhole Commingling
for Consolidated Oil & Gas, Inc. Northwest 4, Basin Dakota
& B S Mesa Gallup Dual, 890' FNL & 1840' FWL, Sec 8B, T26N,
R4W, Rio Arriba Co., New Mexico

Gentlemen;

Consolidated Oil & Gas, Inc. has submitted an application to the New Mexico Oil Conservation Division, as outlined in NMOCD Rule 303C, to apply for approval to administratively commingle the Dakota and Gallup zones in the subject well. We are notifying your office of our intent, and would like you to sign and return each copy of the Waiver of Objection in the self addressed envelopes.

Please mail the waivers to Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil & Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499.

If you have any questions concerning this request please contact Wayne Converse at 632-8056.

Yours very truly,

Dale Richardson
Production & Drilling Superintendent

DER:WLC:wc
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

Consolidated Oil & Gas, Inc.
Calculation for Bottom Hole Pressures
Basin Dakota/B S Mesa Gallup

NORTHWEST 4

Bottom Hole Pressure Formula:
$$\frac{(0.01875)(SG)(D)}{(Zave)(Tave)}$$

$$Pws = Pwh * e^{\frac{(0.01875)(SG)(D)}{(Zave)(Tave)}}$$

Pws - bottom-hole pressure, static
Pwh - wellhead surface pressure, shut-in
SG - specific gas gravity
D - Depth of tubing string or perfs
Zave - average gas deviation factor (compressibility factor)
Tave - average well temperature (midway point)

BASIN DAKOTA

Pwh = 742 psi (tbg)	$\frac{(0.01875)(.727)(8026)}{(.932)(582)}$
SG = .727	
D = 8026' (tbg)	Pws = 742 * e^
Zave = .932	
Tave = 582 (degrees Rankine)	= <u>908 psi</u>

B S MESA GALLUP

Pwh = 742 psi (tbg)	$\frac{(0.01875)(.694)(7619)}{(.929)(580)}$
SG = .694	
D = 7619' (tbg)	Pws = 742 * e^
Zave = .929	
Tave = 580 (degrees Rankine)	= <u>892 psi</u>

(Pressure corrected to 8026' Dakota mean depth, Pws = 900 psi)

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 NORTHWEST 4, DK/MV Dual
 890' FNL & 1840' FWL
 Sec 8B, T26N, R4W
 Rio Arriba Co., New Mexico

Does hereby acknowledge receipt of the 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.

SIGNED: _____

NAME: _____

TITLE: _____

FIRM: _____

DATE: _____

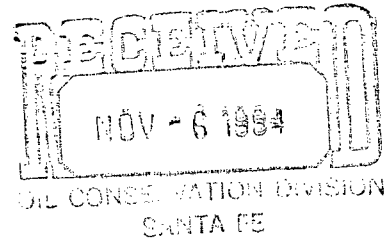
Please find enclosed self addressed envelopes. Mail one copy to
Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos
Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil
& Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499



J. C. Burnside
Division Production Manager

Amoco Production Company

Western Division
1670 Broadway
Post Office Box 800
Denver, Colorado 80201
303-830-4040



October 29, 1984

New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Attention: Mr. Frank Chavez

File: JTM-512-400

Northwest 4
NW/4 Section 8-T26N-R4W
Rio Arriba County, New Mexico
Basin Dakota - BS Mesa Gallup Downhole Commingle Approval

Amoco Production Company has no objection to Consolidated Oil and Gas, Inc.'s request to downhole commingle Basin Dakota and BS Mesa Gallup production in the subject well. This letter signifies our approval of the commingling and is to be used in lieu of the attached waiver of objection form.

TDC/pjg

Attachment

cc: Consolidated Oil and Gas, Incorporated
Post Office Box 2038
Farmington, New Mexico 87401

NOV. DIV.
DIST. 3

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 NORTHWEST 4, DK/GL Dual
 890' FNL & 1840' FWL
 Sec 8B, T26N, R4W
 Rio Arriba Co., New Mexico

Does hereby acknowledge receipt of the 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.

SIGNED: _____

NAME: _____

TITLE: _____

FIRM: _____

DATE: _____

Please find enclosed self addressed envelopes. Mail one copy to
Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos
Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil
& Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499

RECEIVED

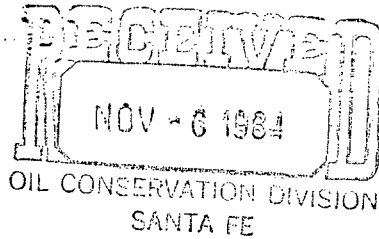
NOV 23 1988

OIL CON. DIV.
DRL



Union Texas
Petroleum

Western Division
14001 E Iliff Avenue
Suite 500
Aurora, CO 80014
Telephone (303) 695-8778



October 31, 1984

Consolidated Oil & Gas, Inc.
P.O. Box 2038
Farmington, New Mexico 87499

Subject: Waiver for Administrative Approval of Downhole Commingling for Consolidated Oil & Gas, Inc. Northwest 4, Basin Dakota & B S Mesa Gallup Dual, 890' FNL & 1840' FWL, Section 8B-T26 N-R4W, Rio Arriba County, New Mexico

Please find enclosed a fully executed copy of the above waiver.

If I can be of further assistance please advise.

Yours very truly,

UNION TEXAS PETROLEUM

Darlene Hurst,
Operations Secretary

ldh/

Enclosure

cc: Mr. Frank Chavez

RECEIVED
NOV 02 1984
OIL CON. DIV.
DIST. 3

WAIVER OF OBJECTION AND
CONSENT TO COMMINGLE THE
DUAL COMPLETION

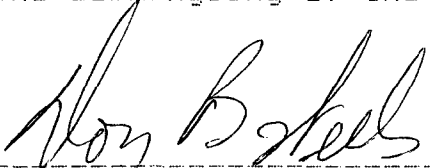
FOR CONSOLIDATED OIL & GAS, INC.

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

NORTHWEST 4, DK/GL Dual
890' FNL & 1840' FWL
Sec 8B, T26N, R4W
Rio Arriba Co., New Mexico

Does hereby acknowledge receipt of the 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.

SIGNED: Don B. Wells  

NAME: DON B. WELLS

TITLE: DIVISION OPERATIONS MANAGER

FIRM: UNICON PRODUCING COMPANY

DATE: OCTOBER 29, 1984

Please find enclosed self addressed envelopes. Mail one copy to
Frank Chavez, New Mexico Oil Conservation Division, 1000 Rio Brazos
Rd., Aztec, New Mexico 87410 and Dale Richardson, Consolidated Oil
& Gas, Inc., P. O. Box 2038, Farmington, New Mexico 87499

RECEIVED

NOV 02 1984

OIL CON. DIV.
DIST. 3



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 Oct. 22, 1984

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

Gentlemen:

I have examined the application dated Oct. 22, 1984
for the Consolidated Oil & Gas Inc. Northwest # 4 B-8-26a-4W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

[Signature]

