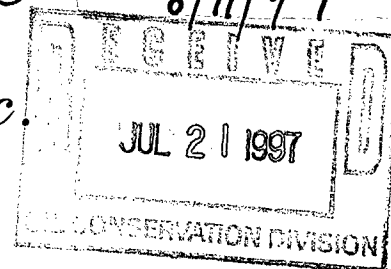


DHC 8/11/97
Chateau Oil and Gas, Inc.



July 17, 1997

William J. LeMay
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Re: **Application for Administrative Approval of Downhole Commingle
for Chateau Oil and Gas, Inc. Duke No. 1,
Basin Dakota/Blanco Mesaverde Dual
1850' FNL & 1180' FEL
Sec 13, T31N, R13W, , San Juan County, New Mexico**

1666

Dear Mr. LeMay:

Chateau Oil and Gas, Inc. hereby requests administrative approval to downhole commingle the Basin Dakota and Blanco Mesaverde formations within the above referenced well. The gas streams are presently designed to produce as a dual completion. Enclosed is the completed Form C-107-A along with the various supporting attachments.

We would like to allocate 81.7% of the gas and 61.1% of the oil to the Dakota formation; 18.3% of the gas and 38.9% of the oil to the Mesaverde formation, based on the cumulative production history. From December 1962 to May 1997 the Dakota has produced 1,655,306 MCF of gas and 12,750 barrels of oil. The Mesaverde has produced 370,577 MCF of gas and 8,111 barrels of oil.

The ownership, working interest, royalty and overriding royalty are the same for both zones and the percentages of ownership are also the same. Notice of this application has been sent to all offsetting operators.

The tubing strings for both zones will be pulled. The intent will be to pull only the seal assembly out of the packer. The 1 1/2" tubing string for the Dakota will be tested and run into the well, stringing it through the packer. A plunger lift will be installed in order to move the associated liquids so that the well will continue to flow.

Current pressure information has been taken on the Dakota formation and is shown on Form C-107-A. However, current measured pressure could not be obtained on the Mesaverde formation. Therefore information was obtained on the Williams No. 1 well located in Section 24, T31N, R13W which is the adjacent section to the south and approximately one mile from the subject well. It is anticipated that this pressure is representative of the pressure that would be observed in the Duke No. 1 well.

In addition, copies of the water analysis information are provided on the Candado 1E which is from water samples on the same producing zones. This information has previously been used in determining fluid compatibility on prior commingling applications which have been approved by the Division.

If you have any questions, please contact either me or Dana Dutcher at 214-891-3350.

Sincerely,

John V. Peters
Vice President - Operations

cc: N.M. Oil Conservation Division, Aztec
BLM, Farmington

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
811 South First St., Artesia, NM 88210-2835

DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Chateau Oil and Gas, Inc. Address 5950 Berkshire Lane, Suite 275, Dallas, Tx 75225
Duke 1 H 13-31N-13W San Juan
Lease 159819 Well No. 010244 Unit Ltr. - Sec - Twp - Rge 30-045-10762 County San Juan
OGRID NO. 159819 Property Code 010244 API NO. 30-045-10762 Spacing Unit Lease Types: (check 1 or more)
Federal ☒ State ☐ Landlord Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Blanco Mesaverde 72319	-	Basin Dakota 71599
2. Top and Bottom of Pay Section (Perforations)	4514' - 4708'	-	6650' - 6764'
3. Type of production (Oil or Gas)	Gas	-	Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing	-	Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) <u>6-17-97</u> <u>301</u> psig offset Williams 1 b. (Original) not measured	a. b.	a. <u>524</u> psig <u>7-11-97</u> b. not measured
6. Oil Gravity (°API) or Gas BTU Content	BTU 1176		BTU 1196
7. Producing or Shut-In?	Shut-In		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: <u>6-16-94</u> Rates: <u>17 McFPD</u>	Date: - Rates: -	Date: - Rates: -
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: - Rates: -	Date: - Rates: -	Date: <u>5-30-97</u> Rates: <u>110 McFPD</u>
8. Fixed Percentage Allocation Formula - % for each zone	Oil: <u>38.9%</u> Gas: <u>18.3%</u>	Oil: - % Gas: - %	Oil: <u>61.1%</u> Gas: <u>81.7%</u>

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☐ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No

11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No

13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). _____

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

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

SIGNATURE John V. Peters TITLE Vice President DATE 7/17/97

TYPE OR PRINT NAME John V. Peters TELEPHONE NO. (214) 891-3350

CONSOLIDATED
4 7 7

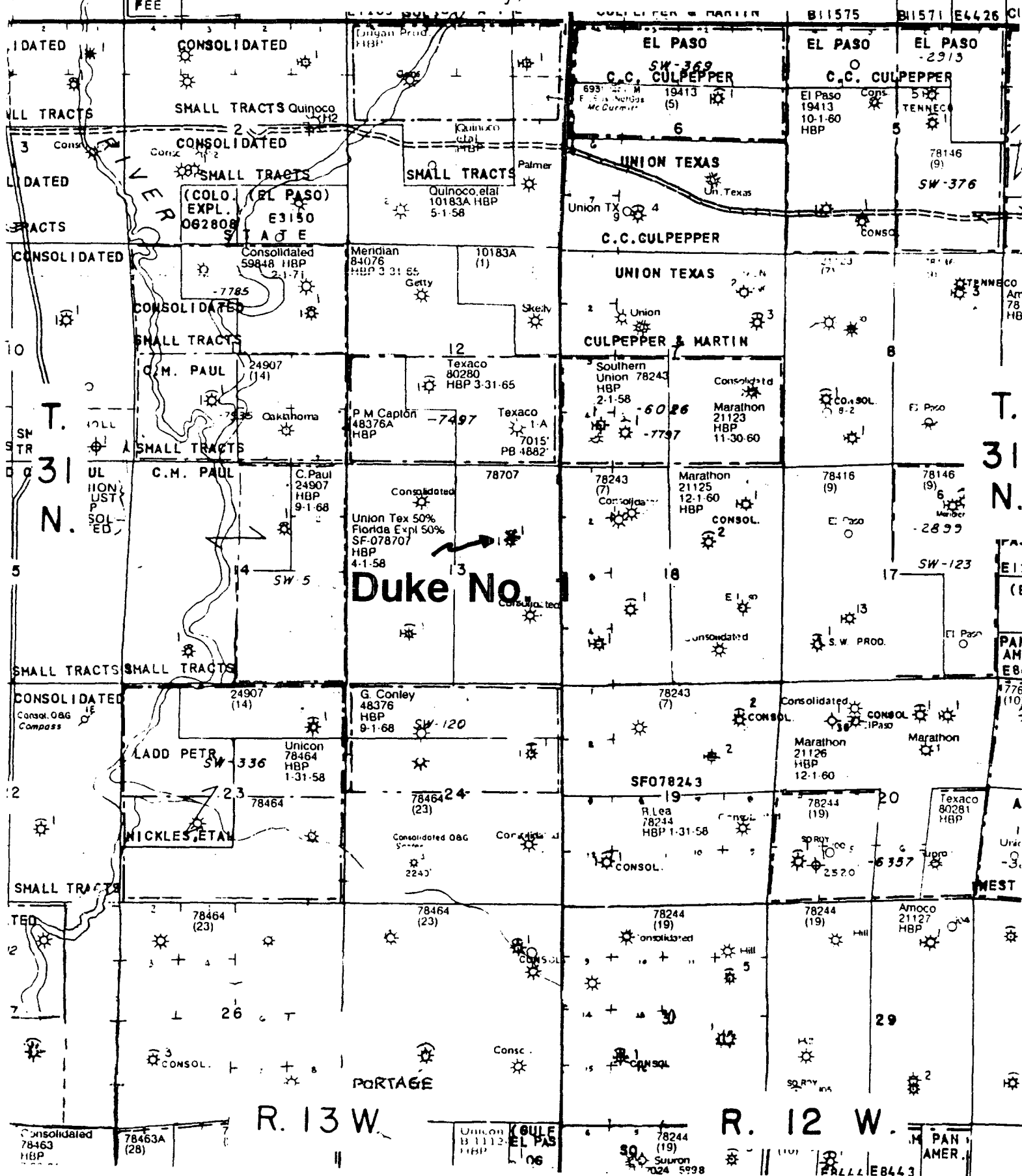
Chateau Oil & Gas Inc.

Duke No.1

Sec 13 T31N R13W

San Juan County, New Mexico

(EL PASO) (LOP-EZ)
B11371 B11571
(AZ-TEG) 32 (PAN AM)
064898
ZTEC (PAN AM) (PAN AM)
B11575 B11571 E4426



Well Location and Acreage Dedication Plat

Section A.

Date October 12, 1962Operator CONSOLIDATED OIL AND GAS, INC.Lease 1-13Well No. _____ Unit Letter H Section 13Township 31 NORTH Range 13 WEST NMPMLocated 1350 Feet From the NORTH Line 1180Feet From the EAST LineCounty SAN JUAN G. L. Elevation 5815.0Dedicated Acreage 320 AcresName of Producing Formation Dakota & Mesaverde Pool Basin Dakota & Blanco Mesaverde

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

RECEIVE

OCT 17 1962

U. S. GEOLOGICAL SURVEY
FARMINGTON, NEW MEXICO

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.

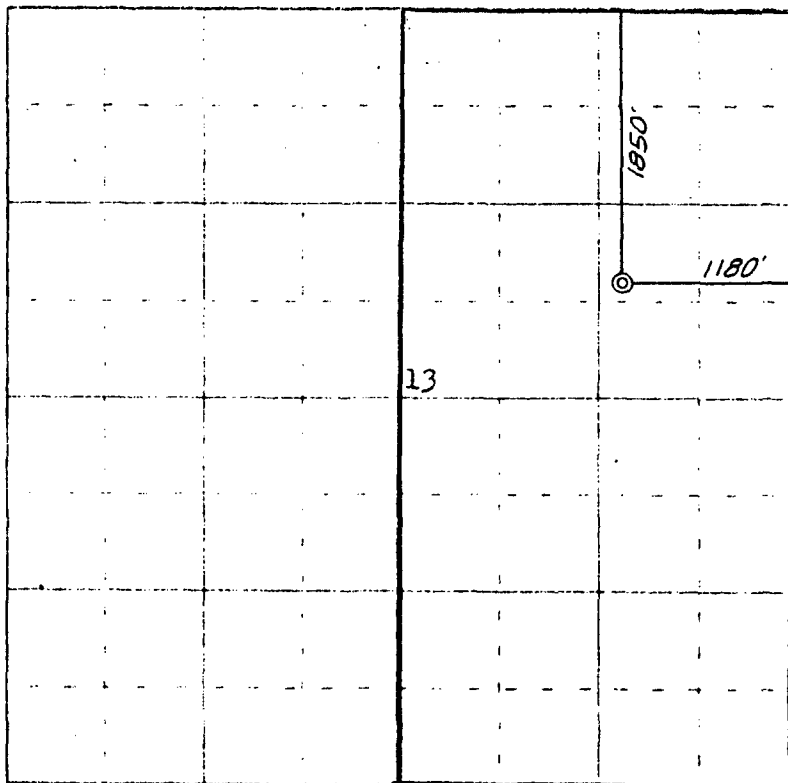
Consolidated Oil & Gas, Inc.

(Operator)

(Representative)

Writer Building

(Address)

4150 E. Mexico AvenueDenver 22, Colorado

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

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 3 October 1962
James P. Leese
 Registered Professional Engineer and/or Land Surveyor
 James P. Leese, N. Mex. Reg. No. 1263

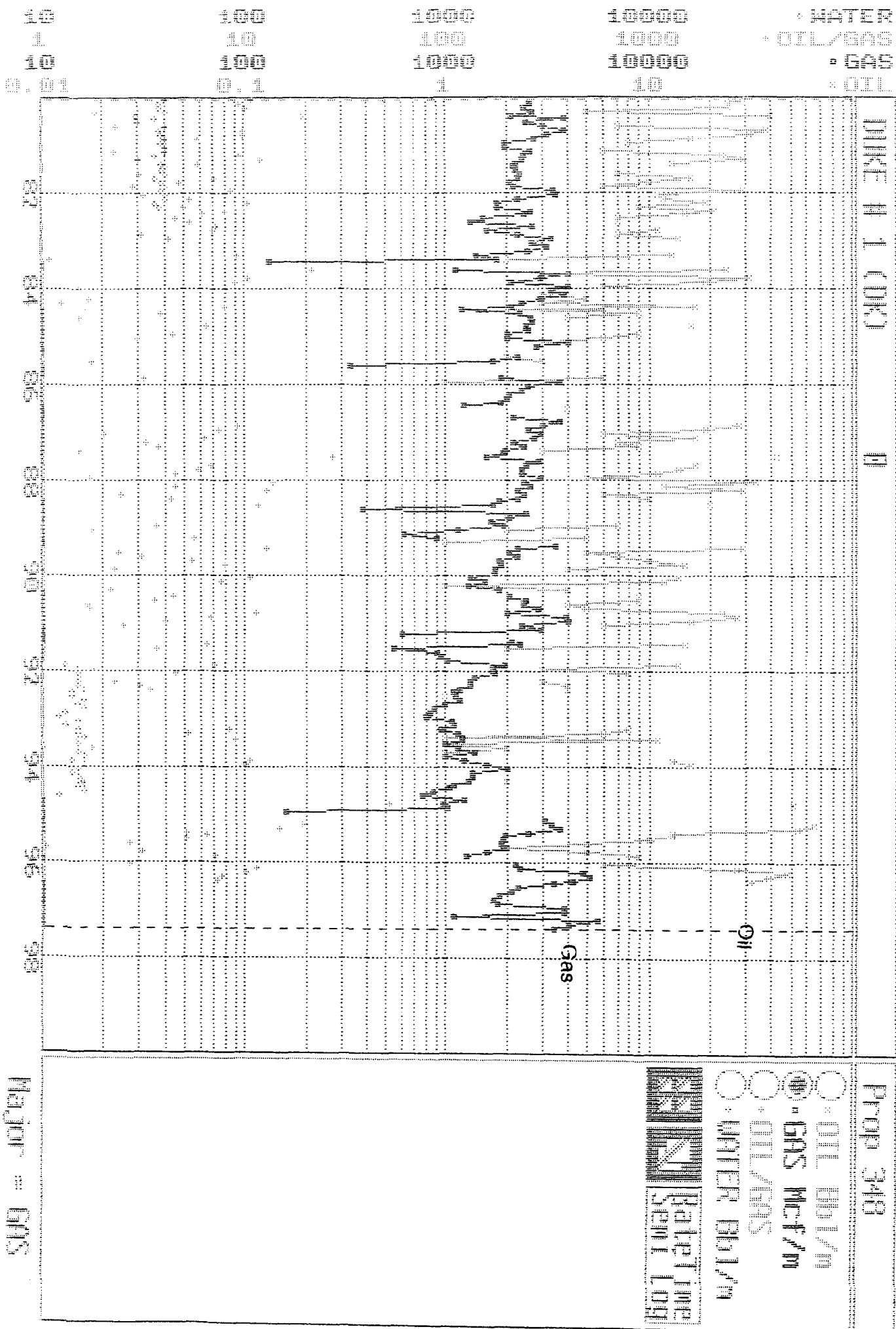
Duke # 1

Fixed Percentage Allocation Formula

Cumulative Production as of May 1997

	<u>Oil (Barrels)</u>	<u>%</u>	<u>Gas (MCF)</u>	<u>%</u>
<u>Dakota Formation</u>	12,750	61.1%	1,655,306	81.7%
<u>Mesaverde Formation</u>	8,111	38.9%	370,577	18.3%
<u>TOTAL</u>	20,861	100.0%	2,025,883	100.0%

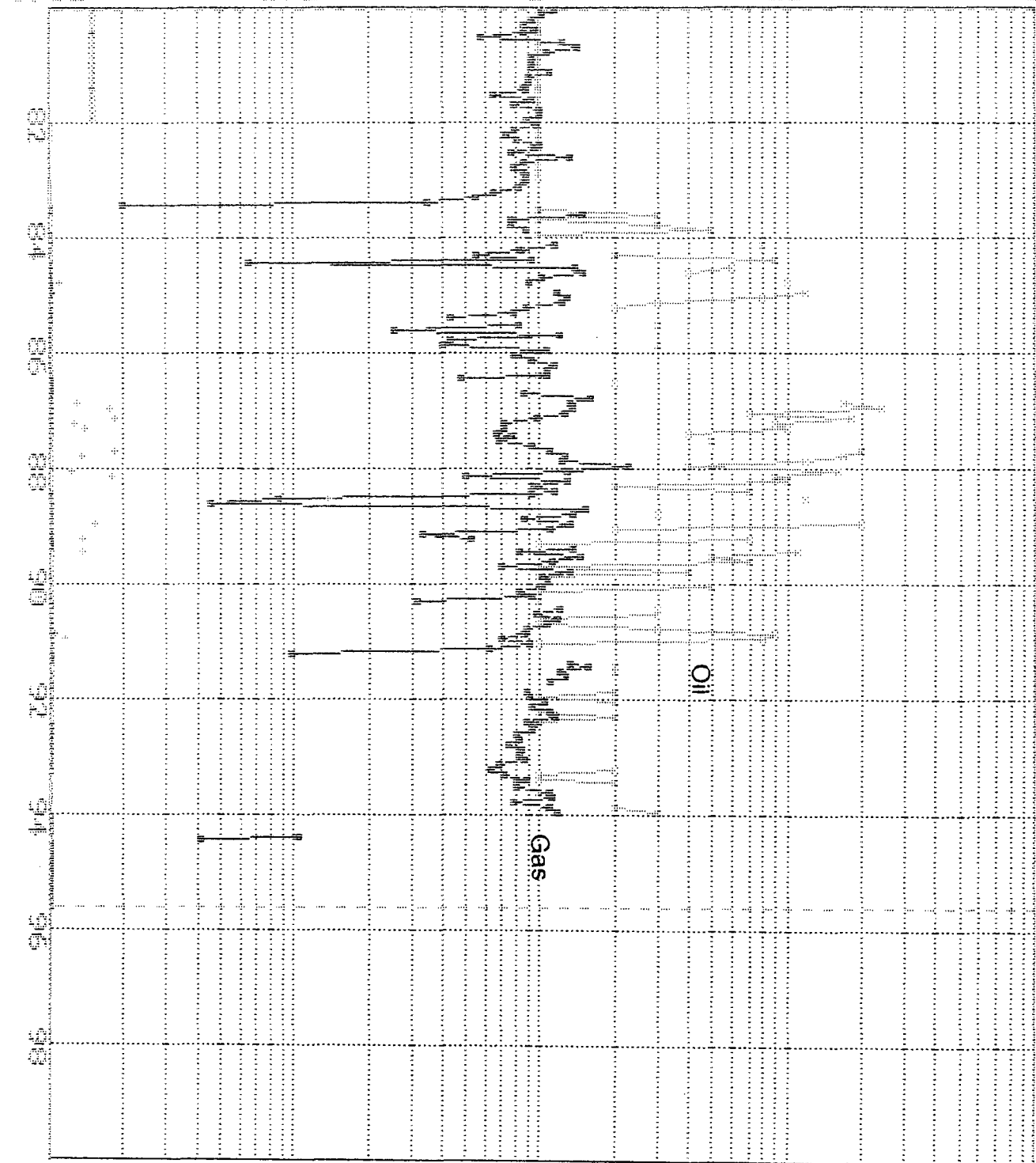
Duke #1 Dakota



Duke #1 Mesaverde

100 1000 10000 WATER
 100 1000 10000 OIL/GAS
 100 1000 10000 GAS
 0.01 0.1 1 10 OIL

DUKE #1 (MWD) (PSID) 0 3



PROP 349

- OIL Bbl/m
- GAS Mcf/m
- OIL/GAS
- WATER Bbl/m

Rate Time
Semi Log

Major = GAS

TEFTELLER INC

Pressure Gradient Report

COMP : CHATEAU OIL & GAS WELL : DUKE # 1 T : 0.0
 FIELD : RES : DAKOTA DATUM : 6570.0
 DATE : 07/11/1997 STATUS : S.I. HRS : 0.0
 TBG : 1-1/2 DPTH : END : 6585 PKR : S N :
 CSG : DPTH : PERFS : GRAD : 0.215000 T D :

Depth (ft)	Pressure (psig)	Delta P (psi)	Gradient (psi/ft)
0	364.0		
1000	376.0	12.0	0.0120
2000	389.0	13.0	0.0130
3000	401.0	12.0	0.0120
4170	414.0	13.0	0.0111
5170	426.0	12.0	0.0120
6170	440.0	14.0	0.0140
6370	481.0	41.0	0.2050
6570	524.0	43.0	0.2150
6570	524.0	0.0	

REMARKS : CASING PRESSURE : PAKER
 TOP OF OIL @ 6170

TUBING PRESSURE : 265

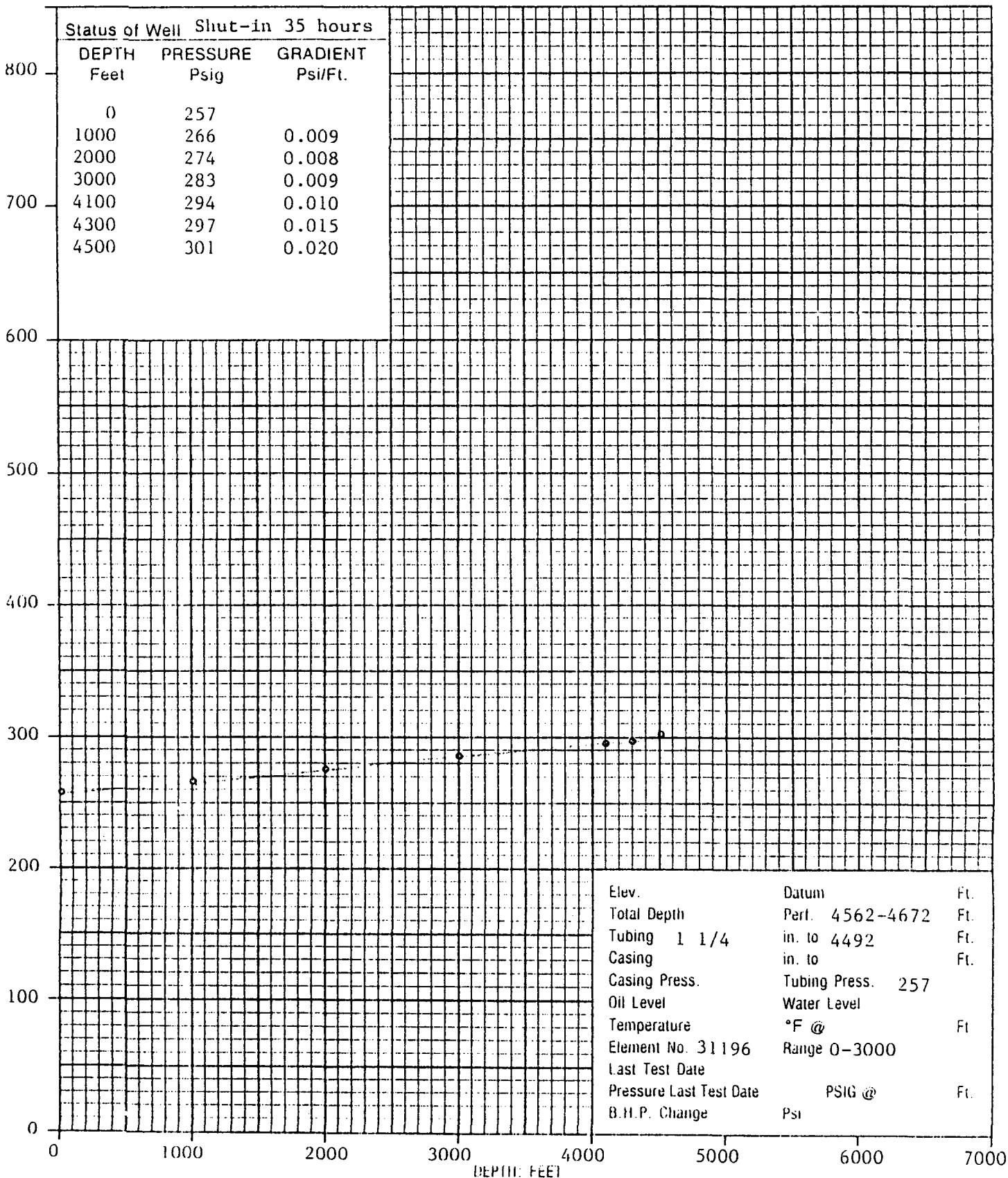


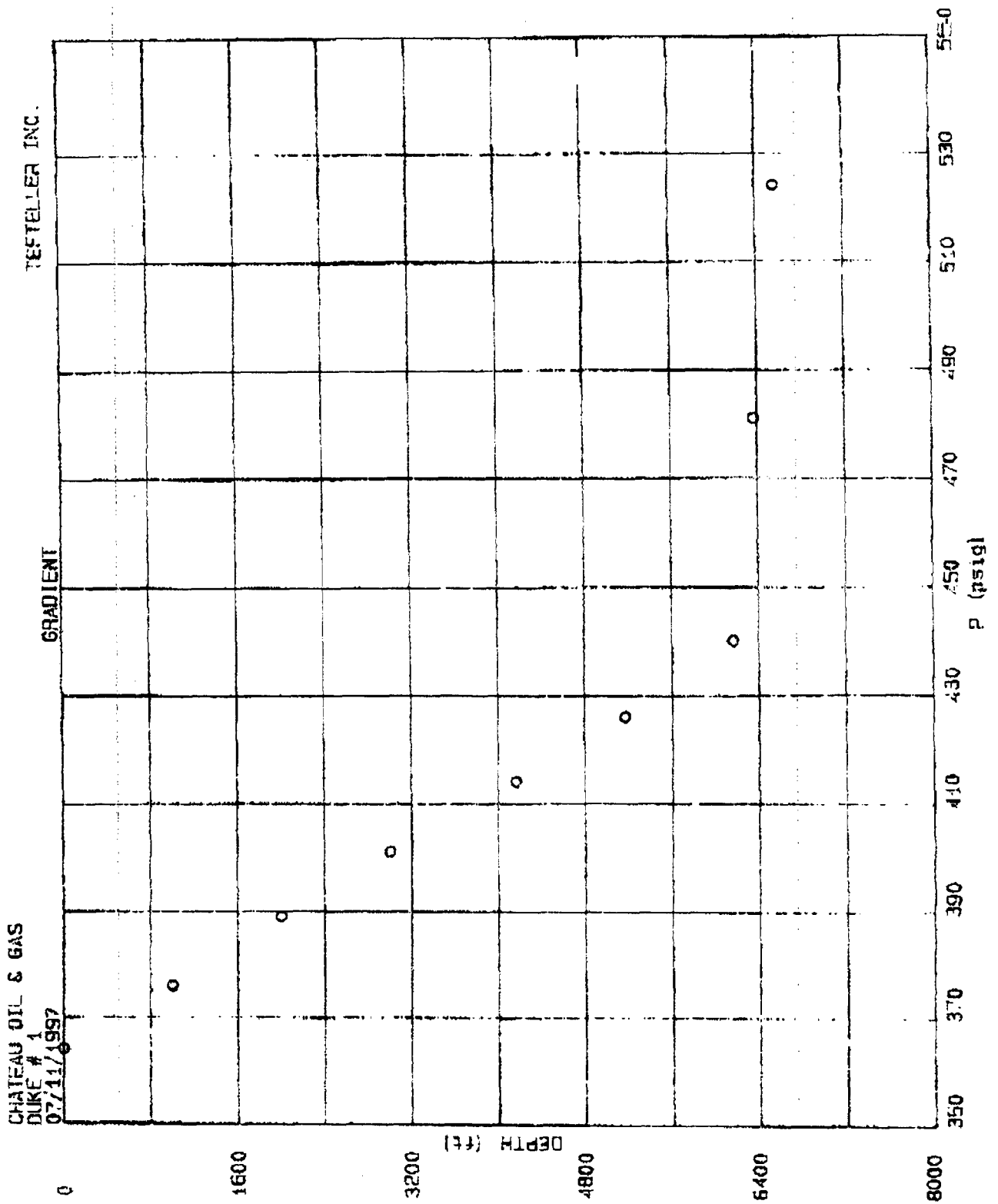
Company Chateau Oil & Gas, Inc. Lease Williams Well No. 1(MV)
Field _____ County San Juan State New Mexico
Formation Mesa Verde Test Date June 17, 1997

Status of Well Shut-in 35 hours

DEPTH Feet	PRESSURE Psig	GRADIENT Psi/Ft.
0	257	
1000	266	0.009
2000	274	0.008
3000	283	0.009
4100	294	0.010
4300	297	0.015
4500	301	0.020

PRESSURE POUNDS PER SQUARE INCH GAUGE





U N I C H E M I N T E R N A T I O N A L

1215 Basin Road

P.O. Box 421

FARMINGTON, N.M. 87401

COMPANY: COLUMBUS ENERGY

DATE: 4-9-86

FIELD, LEASE AND WELL: CANDADO 1E DAKOTA

SAMPLING POINT: WELLHEAD

DATE SAMPLED: 3-27-86

SPECIFIC GRAVITY: 1.009

TOTAL DISSOLVED SOLIDS: 15,092

PH = 7.95

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	1.6	32.0
MAGNESIUM	(MG)+2	2.4	29.1
SODIUM	(NA), CALC.	245.0	5632.0

ANIONS			
BICARBONATE	(C)3)-1	21.0	1281.0
CARBONATE	(CO3)-2		
HYDROXIDE	(OH)-1		
SULFATE	(SO4)-2	0	0
CHLORIDES	(CL)-1	228.0	8100.0

DISSOLVED GASES			
CARBON DIOXIDE	(CO2)		
HYDROGEN SULFIDE	(H2S)		
OXYGEN	(O2)		
IRON	(FE)		35.1
BARIUM	(BA)+2	0.25	17.3
MANGANESE	(MN)		
IONIC STRENGTH = 0.255			

	SCALING INDEX	TEMP. 86°F 30°C	120°F 48.8°C
CARBONATE INDEX		0.310	0.711
CALCIUM CARBONATE SCALING		LIKELY	LIKELY
SULFATE INDEX		-45.0	-46.0
CALCIUM SULFATE SCALING		UNLIKELY	UNLIKELY

U N I C H E M I N T E R N A T I O N A L

1215 Basin Road

P.O. Box 421

FARMINGTON, N.M. 87401

COMPANY: COLUMBUS ENERGY

DATE: 4-9-86

FIELD, LEASE AND WELL: 50% CANDADO 1E MESA VERDE/50% CANDADO 1E DAKOTA

SAMPLING POINT: WELLHEAD

DATE SAMPLED: 3-27-86

SPECIFIC GRAVITY: 1.009

TOTAL DISSOLVED SOLIDS: 14,764

PH = 7.495

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	3.6	72.1
MAGNESIUM	(MG)+2	3.4	41.4
SODIUM	(NA), CALC.	233.0	5367.0

ANIONS			
BICARBONATE	(C)3)-1	17.2	1049.0
CARBONATE	(CO3)-2		
HYDROXIDE	(OH)-1		
SULFATE	(SO4)-2	19.2	925.0
CHLORIDES	(CL)-1	204.0	7300.0

DISSOLVED GASES

CARBON DIOXIDE (CO2)

HYDROGEN SULFIDE (H2S)

OXYGEN (O2)

IRON (FE)

BARIUM (BA)+2

MANGANESE (MN)

IONIC STRENGTH 0.258

SCALING INDEX

CARBONATE INDEX

CALCIUM CARBONATE SCALING

SULFATE INDEX

CALCIUM SULFATE SCALING

TEMP.
86°F 30°C

0.115

LIKELY

-36.0

UNLIKELY

120°F 48.8°C

0.517

LIKELY

-36.0

UNLIKELY

U N I C H E M I N T E R N A T I O N A L

1215 Basin Road

P.O. Box 421

FARMINGTON, N.M. 87401

COMPANY: COLUMBUS ENERGY

DATE: 4-9-86

FIELD, LEASE AND WELL: CANDADO 1E MESA VERDE

SAMPLING POINT: WELLHEAD

DATE SAMPLED: 3-27-86

SPECIFIC GRAVITY: 1.009

TOTAL DISSOLVED SOLIDS: 14,335

PH = 7.04

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	5.6	112.0
MAGNESIUM	(MG)+2	4.4	53.4
SODIUM	(NA), CALC.	221.0	5101.0

ANIONS			
BICARBONATE	(C)3)-1	13.4	817.0
CARBONATE	(CO3)-2		
HYDROXIDE	(OH)-1		
SULFATE	(SO4)-2	38.5	1850.0
CHLORIDES	(CL)-1	180.0	6400.0

DISSOLVED GASES			
CARBON DIOXIDE	(CO2)		
HYDROGEN SULFIDE	(H2S)		
OXYGEN	(O2)		
IRON	(FE)		61.0
BARIUM	(BA)+2		0.2
MANGANESE	(MN)		

IONIC STRENGTH = 0.26
SCALING INDEX

CARBONATE INDEX	TEMP 86°F 30°C	120°F 48.8°C
CALCIUM CARBONATE SCALING	-0.25 UNLIKELY	0.142 LIKELY
SULFATE INDEX	-27.0	-28.0
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

WELLDONE DIAGRAM

WELL NAME: Duke No. 1-13
 LOCATION: 1850' FNL & 1180' FEL
 COUNTY, STATE: San Juan, NM
 GL Elevation: 5815'
 KB Elevation: 5827'
 TD: 6810'
 PBTD: 6774'

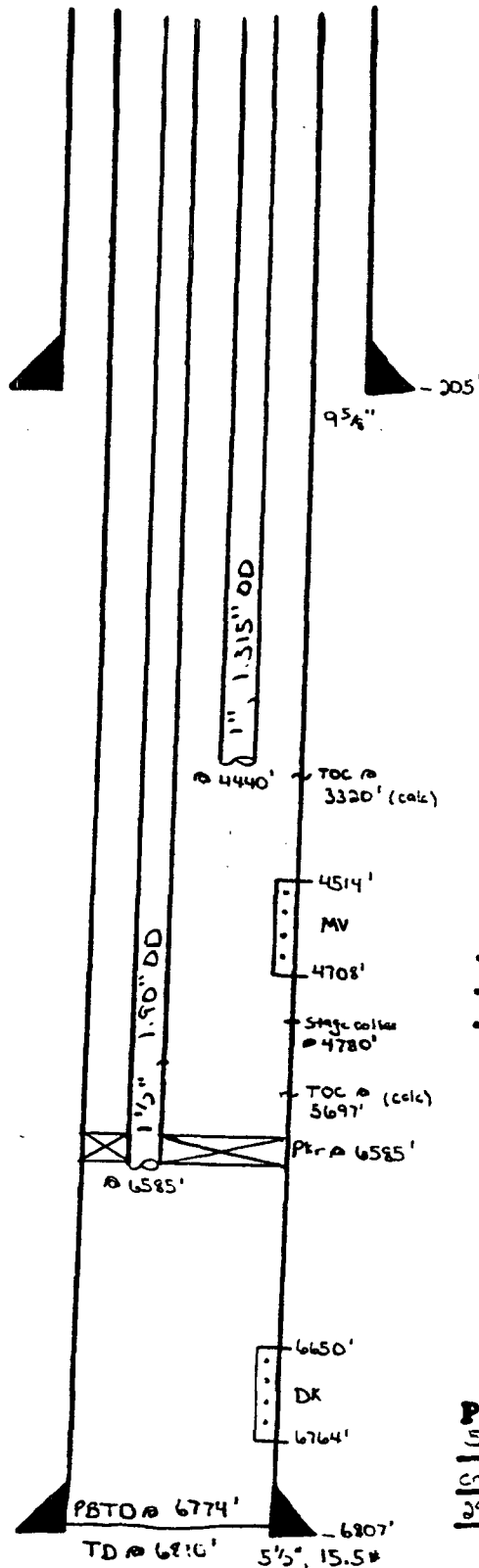
BY: MCD
 DATE: 6-24-91

Surface Csg: _____
9 5/8" Set @ 205'
Cm'd w/ 150 sx reg 290 CaCl₂

Tubing: _____
1 1/2", 1.90" OD landed @ 6585'
1", 1.315" OD landed @ 4440'

Cement top(s): _____
5 1/2" shoe to 6585' (calc)
Stage @ 4780' to 3320' (calc)

Perfs (Formation): _____
MV 4514' - 4708' ~ 194'
DK 6650' - 6764' ~ 114'



Packer: _____
5 1/2" Baker model "D" Set @ 6585'

Production Csg: _____
5 1/2" 15.5", Set @ 6807'
Cm'd w/ 222 sx thru shoe +
292 sx thru stage collar @ 4780'

Duke 1 Offset Operators

P-R-O Management 9400 N. Central Exprwy #1313 LB 158 Dallas, Tx 75231	Sec 11-31N-13W
Dugan Production Corp P.O. Box 420 Farmington, NM 87499-0420	Sec 12-31N-13W Sec 14-31N-13W
Universal Resources 2601 N.W. Exprwy, Suite 700E Oklahoma City, Ok 73112	Sec 23-31N-13W
Chateau Oil & Gas, Inc. 5950 Berkshire Lane Suite 275 Dallas, Tx 75225	Sec 24-31N-13W Sec 19-31N-12W Sec 18-31N-12W Sec 7-31N-12W

Chateau Oil and Gas, Inc.

July 16, 1997

P-R-O Management
9400 N. Central Expressway #1313
LB 158
Dallas, Tx 75231

**Re: Waiver for administrative Approval of Downhole commingling for
Chateau Oil and Gas, Inc. Duke 1, Basin Dakota & Blanco
Mesaverde Dual, 1850' FNL & 1180' FEL, Sec 13, T31N, R13W
San Juan County, New Mexico**

Gentlemen:

Chateau Oil and Gas, Inc. is applying to the New Mexico Oil Conservation Division, as outlined in the NMOCD Rule 303C, for administrative approval to commingle production from the Dakota and Mesaverde zones in the subject well. These zones have already been approved by the Commission for downhole commingling in the area. We are therefore notifying your office of our intent to commingle the same zones in the referenced well, and would like you to sign and return one copy of the Waiver of Objection in each of the self addressed envelopes.

Please mail the waivers to William J. LeMay, New Mexico Oil Conservation Division, 2040 S. Pacheco, Santa Fe, New Mexico 87505-6249 and John V. Peters, Chateau Oil and Gas, Inc., 5950 Berkshire Lane, Suite 275, Dallas, Texas 75225.

If you have any questions concerning this request, please contact John V. Peters at 214-891-3350.

Sincerely,

CHATEAU OIL AND GAS, INC.

John V. Peters
Vice President - Operations

JVP/jw
Enclosures
cc: N.M. Conservation Division, Santa Fe
N.M. Conservation Division, Aztec
BLM, Farmington

Chateau Oil and Gas, Inc.

July 16, 1997

Dugan Production Corp.
P.O. Box 420
Farmington, NM 87499-0420

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Chateau Oil and Gas, Inc. Duke 1, Basin Dakota & Blanco
Mesaverde Dual, 1850' FNL & 1180' FEL, Sec 13, T31N, R13W
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CHATEAU OIL AND GAS, INC.

John V. Peters
Vice President - Operations

JVP/jw
Enclosures

cc: N.M. Conservation Division, Santa Fe
N.M. Conservation Division, Aztec
BLM, Farmington

Chateau Oil and Gas, Inc.

July 16, 1997

Universal Resources
2601 N. W. Expwy, Suite 700E
Oklahoma City, OK 73112

**Re: Waiver for administrative Approval of Downhole commingling for
Chateau Oil and Gas, Inc. Duke 1, Basin Dakota & Blanco
Mesaverde Dual, 1850' FNL & 1180' FEL, Sec 13, T31N, R13W
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CHATEAU OIL AND GAS, INC.

John V. Peters
Vice President - Operations

JVP/jw
Enclosures

cc: N.M. Conservation Division, Santa Fe
N.M. Conservation Division, Aztec
BLM, Farmington