CASE NO.

6608

APPLICATION,

TRANSCRIPTS,

SMALL EXHIBITS,

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
State Land Office Building
Santa Fe, New Mexico
25 July 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Getty Oil Company for a dual completion, Lea County, New Mexico, and — CASE 6607

Application of Getty Oil Company for pool creation and special pool rules, Lea County, New Mexico. — CASE 6608

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87503

For the Applicant: William F. Carr, Esq.
CAMPBELL AND BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
1010 Plaza Blanca (505) 471-2465
Santa Fe, New Mexico 87501

I N D E X

E X H I B I T S

MR. NUTTER: We'll call next Case Number 6607.

MR. PADILLA: Application of Getty Oil Company for a dual completion, Lea County, New Mexico.

MR. CARR: Mr. Examiner, inasmuch as this and the following case involve the same well and the testimony would overlap, we would request that the cases be consolidated for the purpose of testimony.

MR. NUTTER: At this time we'll call Case Number 6608.

MR. PADILLA: Application of Getty Oil Company for pool creation and special pool rules, Lea County, New Mexico.

MR. NUTTER: Cases Numbers 6607 and 6608 will be consolidated for purposes of hearing.

Please proceed.

MR. CARR: Mr. Examiner, I'd like the record to reflect that the witness is the same witness who testified in the previous hearing and that he is under oath.

MR. NUTTER: Mr. Terry is still under oath.

H. W. TERRY

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your full name?

A. My name is Herman W. Terry.

Q. And you are the same Mr. Terry who testified in the previous case.

A. Yes, I am.

Q. Are you familiar with the application in the cases which have been consolidated in this hearing?

A. Yes, I am.

MR. CARR: Mr. Examiner, are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. (Mr. Carr continuing.) Will you briefly state, Mr. Terry, what Getty is seeking with these applications?

A. It's seeking approval for dual completion in our Getty 36 State Com Well No. 1 in the Morrow and Wolfcamp formations, creation of a new Wolfcamp oil pool and special temporary pool rules for the Wolfcamp, which include 160-acre spacing for the Wolfcamp.

Q. Mr. Terry, will you refer to what has been marked for identification as Getty's Exhibit Number One and explain to the Examiner what this is and what it shows?

A. This is a plat of a portion of the Grama Ridge East Field, showing the wells in the area. It's been contoured on the top of the Wolfcamp marker.

Q. And does this plat reflect the location of the subject well?

A. Yes, it does. The well is located 1980 feet from the north line, 1650 feet from the west line, Section 36, Township 21 South, Range 34 East.

Q. Mr. Terry, are there other Wolfcamp wells or pools in the area?

A. No, there are not.

Q. Are there other dual completions in the area?

A. Yes, there are other dual completions but not in the Wolfcamp and the Morrow.

Q. Are there other wells in the immediate vicinity which are completed in the same zones as the two zones in the GEtty 36?

A. Not in the same two zones. No.

Q. Will you now refer to what has been marked as Exhibit Number Two and review this for the Examiner?

A. This is a compensated neutron formation density for the Getty 36 State Com Well No. 1. The perforations in both the Wolfcamp and the Morrow have been marked. It shows good porosity through the Wolfcamp zone.

Q. Now will you refer to Getty's Exhibit Number Three and review this for the Examiner?

A. This is a diagrammatic sketch of our Getty 36 State Com Well No. 1, showing the completion of the well. We have -- we have two tubing strings, both 2-3/8ths. We have a Baker Model DD packer set at 12,000 feet; five 20-foot blast joints. Our multiple perforations are shown at 12,940 to 950. The short string side, the Wolfcamp perforations are at 11,320 to 11,335. We have a Baker Model AL-5 dual packer set at 10,505. We have a 4-1/2 inch 11.6 pound S-95 liner set at 13,349, cemented with 255 sacks.

Q. In your opinion does this completion conform to good engineering practices and will it effectively prevent communication between the zones?

A. Yes, it will.

MR. NUTTER: What is the depth of that liner again?

A. 13,349.

MR. NUTTER: Thank you.

Q. Mr. Terry, in your opinion is the method of completion the best way to complete this well for the recovery of the hydrocarbons in the two zones involved?

A. It's the most economical way.

Q. Will you now refer to what has been marked for identification as Exhibit Number Four and review this

for the Examiner?

A. Exhibit Number Four is a bottom hole pressure report for bottom hole pressure test that we ran in the Wolfcamp. We flowed the Wolfcamp approximately 3-1/2 hours. The well had been shut in for approximately an hour when the bomb was set at 10,450.

It shows a bottom hole pressure of 7057 at this depth and it gives an indication of excellent permeability in the Wolfcamp.

Q. Did you take other tests on the well?

A. We flow tested the well. The Wolfcamp produced at a rate of 4,232,000 cubic feet of gas per day and 685 barrels of oil per day.

Q. What sort of a GOR does this give?

A. This is approximately a 6000-to-1.

Q. Mr. Terry, are you convinced that you have an oil reservoir here?

A. No, we're not convinced that it is oil.

Q. And that is the reason you are requesting that the rules be temporary.

A. We are requesting that the rules be temporary and the case be re-opened in December after we've obtained more data on the reservoir.

Q. At the present time, based on the information you've been able to gain from the tests you've run on

the Wolfcamp, what conclusions can you reach about it?

A. The Wolfcamp appears to have good permeability and porosity. It appears to be very evident that one well will drain 160 acres.

Q. Have you run any tests on the Morrow?

A. The Morrow was flow tested. It flowed at a rate of 1,662,000 cubic feet of gas per day; 36 barrels of condensate per day.

Q. Will Getty run tests to assure that there is no communication between the zones in this well and report those tests to the Commission?

A. Yes, we will.

Q. Will the well be produced to assure no commingling of the hydrocarbons?

A. Yes, it will.

Q. Are you planning to meter each zone separately?

A. Yes, we will.

Q. And it will be equipped so that the pressure of each of the separate reservoirs may be determined?

A. Yes, it will.

Q. Will you refer to what has been marked as Exhibit Number Five, and review this for the Examiner?

A. This is Stepco cross section of the East Grama Ridge Field, showing the Getty State 36 Com Well NO.

1 and several other wells in the area.

From this, this indicates that there aren't any other wells completed in the Wolfcamp in this area.

Q. This also contains a log of the Getty 35 State Well, is that correct?

A. That's correct.

Q. And it shows the Bone Springs completion in that well.

A. Yes, sir.

MR. NUTTER: Now which are the 36 State and the 35 State in this exhibit?

A. Right up at the top.

MR. NUTTER: Well, it's too far away. I can't read it.

A. Okay, the 36 State is the -- the 36 is the fourth one from the left; the 35 is the third one from the left.

MR. NUTTER: Okay.

A. And the perforations in both wells are marked.

Q. Mr. Terry, what area are you requesting be included in this new pool?

A. The northwest quarter section of Section 36.

Q. And this acreage in the Wolfcamp has been

proven productive of hydrocarbons, is that correct?

A. We feel that it has from the flow tests.

Q. Do you believe that granting this application will avoid the drilling of unnecessary wells and also reduce the risk of drilling an excessive number of wells?

A. Yes, it will.

Q. Do you have a recommendation to make to the Examiner as to the spacing of wells in the nex pool?

A. That any well be not closer than 660 feet to a quarter section line, nor closer than 330 feet to a quarter quarter section line.

Q. And, Mr. Terry, in your opinion will granting this application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, sir.

Q. Were Exhibits One through Five prepared by you or under your direction and supervision?

A. Yes, they were.

MR. CARR: At this time, Mr. Examiner, I would offer into evidence Getty Exhibits One through Five.

MR. NUTTER: Getty Exhibits One through Five will be admitted in evidence.

Now, Mr. Terry -- are you through?

MR. CARR: Yes, sir, I am.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Terry, on this cross section it appears that the lower producing interval is the exact equivalent in each of the two wells.

A. Yes, sir, in the Morrow.

Q. Then when you look at the upper zone that is dually completed, the 35 - 1 is up there in the Bone Springs, I believe it is.

A. Yes, sir, that's correct.

Q. And you're completed here in the Wolfcamp formation.

Now, that one in the Bone Springs is definitely an oil well, isn't it?

A. It's definitely an oil well. There's no question about it.

Q. And this Wolfcamp may or may not be an oil well or a gas well. You haven't decided yet.

A. We haven't. We're not sure either way.

Q. Well, your GOR is 6000-to-1. What is the gravity of this 685 barrels per day that you're producing?

A. The gravity is 49.4. It's a clear liquid.

Q. It would have the appearance of a condensate.

A. Yes, sir.

Q. Even though the gravity may not indicate it.

A. Yes, sir. That's -- that's what's got us puzzled.

Q. Have you had sufficient production from the well to see if there's been any change in GOR?

A. No, sir, this well is shut in pending a sales line. We've flowed -- we've only had the 3-1/2 hour flow test. We hope to have it on the line within three weeks and we'll gather more data.

Q. Do you have any indication yet whether the liquids are in a gaseous or a liquid state in the reservoir?

A. No, sir, we don't.

Q. And when do you expect to get it connected?

A. Within three to four weeks, hopefully.

Q. I see. Is the Morrow connected yet?

A. No, sir.

Q. And you're seeking temporary oil reservoir rules --

A. Temporary --

Q. -- based on 160.

A. Yes, sir.

Q. And you'd seek that this case be re-opened when, then?

A. In December of this year.

Q. So that would actually be less than six months in duration, or maybe the rules would be in effect approximately six months.

A. That's right.

Q. Does either zone make water, Mr. Terry?

A. Very little. It would be -- the Morrow made just a slight amount. The Wolfcamp was almost too small to measure.

MR. NUTTER: Are there any further questions of Mr. Terry?

He may be excused.

Do you have anything further, Mr. Carr?

MR. CARR: Nothing further, Mr. Examiner.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 6607 and 6608?

We'll the cases under advisement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6607-6608 heard by me on 2/25 19 79.

Oil Conservation Division Examiner

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
301 E Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

Preliminary Report

for

GETTY OIL COMPANY

State 36 No. 1 Well
Wildcat
Lea County, New Mexico

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75207
November 15, 1979

RESERVOIR FLUID DIVISION

Getty Oil Company
P. O. Box 730
Hobbs, New Mexico 88240

Attention: Mr. Peter Botes

Subject: Preliminary Report
Reservoir Fluid Study
State 36 No. 1 Well
Wildcat
Lea County, New Mexico
Our File Number: RFL 79619

Gentlemen:

Duplicate samples of separator gas and separator liquid were collected from the subject well by Tefteller, Inc. on September 9, 1979. These samples were forwarded to our Dallas laboratory for use in a reservoir fluid study. Presented in this preliminary report are the results obtained to date using these samples.

Upon arrival in the laboratory the separator gas was analyzed through heptanes plus using chromatography, while the separator liquid was also analyzed to heptanes plus using low temperature fractional distillation equipment along with chromatography. After the separator gas flow rate was corrected using factors which are shown on page one, the producing gas-liquid ratio was calculated to be 4438 cubic feet of separator gas at 15.025 psia and 60°F. per barrel of stock tank liquid at 60°F. In the laboratory it was determined that this was the equivalent of 3588 standard cubic feet of separator gas per barrel of separator liquid at 490 psig and 78°F. The measured compositions of the separator products were used in conjunction with this producing gas-liquid ratio to calculate the composition of the producing well stream material. These compositions are shown on page two. In the laboratory the separator products were physically recombined to this producing gas-liquid ratio for use in the entire reservoir fluid study.

A portion of the reservoir fluid was charged to a high pressure visual cell and heated to the reservoir temperature of 196°F. During constant composition expansion pressure volume relations performed at this temperature, the fluid existed as a single phase gas at pressures above 5018 psig at which pressure a retrograde dew point was observed. A comparison of this dew point pressure to the reservoir pressure of 7255 psig indicates that the fluid currently exists in the reservoir in an undersaturated condition. The results of the pressure volume relation measurements are shown on page three.

The sample in the cell was repressured to a single phase condition after which it was subjected to a constant volume depletion. After the sample volume was established at the dew point pressure, the sample was subjected to a series of pressure expansions and constant pressure displacements with each displacement terminating at the original sample volume at the dew point pressure. During each of these displacements the volume of retrograde liquid accumulation was monitored.

These data presented on pages four and five show that the maximum accumulation is approximately 37.1 percent of the hydrocarbon pore space occurring at approximately 3150 psig. The liquid phase saturation at 0 pressure and 196°F. was 24.5 percent of the hydrocarbon pore space.

The constant volume depletion will be performed in our laboratory one more time in a similar manner described above, however, instead of measuring the liquid accumulation, the main purpose of the second depletion will be to analyze the equilibrium gas phase produced at various depletion pressure points. Volumetric data such as expansions from reservoir conditions to atmospheric conditions will also be measured at this time. These data will be sent to you as soon as it is completed.

We wish to thank Getty Oil Company for this opportunity to be of service. If you should have any questions regarding these data or if we may be of further assistance, please do not hesitate to contact us.

Very truly yours,

Core Laboratories, Inc.

P. L. Moses, Manager
Reservoir Fluid Analysis

PLM:FBV:sm
6 cc.-Addressee
1 cc.-Mr. Jim Eakin
Getty Oil Co.
P. O. Box 1231
Midland, Texas 79702

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75207

File RFL 79619

Company Getty Oil Company — Date Sampled September 9, 1979
Well State 36 No. 1 — County Lea
Field Wildcat — State New Mexico

FORMATION CHARACTERISTICS

Formation Name	Wolfcamp	
Date First Well Completed	July 2, 19 79	
Original Reservoir Pressure	7255 PSIG @ 11328	Ft.
Original Produced Gas-Liquid Ratio	5082	SCF/Bbl
Production Rate	752	Bbls/Day
Separator Pressure and Temperature	PSIG	°F.
Liquid Gravity at 60°F.	49.7	° API
Datum	7636	Ft. Subsea

WELL CHARACTERISTICS

Elevation	3692 KB	Ft.
Total Depth	13266 PBTD	Ft.
Producing Interval	11320-11335	Ft.
Tubing Size and Depth	2-3/8 In. to 10495	Ft.
Open Flow Potential	7.82 (Estimated)	MMSCF/Day
Last Reservoir Pressure	~~7255~~ 6846 PSIG @ 11328	Ft.
Date	September 12, 19 79	
Reservoir Temperature	187* °F. @ 10505	Ft.
Status of Well	Flowing	
Pressure Gauge	Amerada	

SAMPLING CONDITIONS

Flowing Tubing Pressure		3510	PSIG
Flowing Bottom Hole Pressure		6092	PSIG
Primary Separator Pressure		490	PSIG
Primary Separator Temperature		78	°F.
Secondary Separator Pressure			PSIG
Secondary Separator Temperature			°F.
Field Stock Tank Liquid Gravity		49.7	° API @ 60°F.
Primary Separator Gas Production Rate		2887	MSCF/Day
Pressure Base	15.025 PSIA		
Temperature Base	60 °F.		
Compressibility Factor (F_{pv})	1.0477		
Gas Gravity (Laboratory)	0.688		
Gas Gravity Factor (F_g)	1.2056		
Stock Tank Liquid Production Rate @ 60 °F.		650.54	Bbls/Day
Primary Separator Gas/Stock Tank Liquid Ratio		4438	SCF/Bbl
	or	225.33	Bbls/MMSCF
Sampled by		TI	

REMARKS:

*Temperature extrapolated to mid point of perforation = 196°F.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File RFL 79619

Well State 36 No. 1

Hydrocarbon Analyses of Separator Products and Calculated Well Stream

Component	Separator Liquid Mol Per Cent	Separator Gas Mol Per Cent	Separator Gas GPM	Well Stream Mol Per Cent	Well Stream GPM
Hydrogen Sulfide	Nil	Nil		Nil	
Carbon Dioxide	Nil	0.12		0.10	
Nitrogen	0.16	1.14		0.94	
Methane	11.74	81.81		67.81	
Ethane	8.81	10.87	2.964	10.46	
Propane	9.79	3.92	1.100	5.09	1.428
iso-Butane	2.49	0.50	0.167	0.90	0.300
n-Butane	7.04	0.91	0.293	2.13	0.685
iso-Pentane	3.33	0.18	0.067	0.81	0.302
n-Pentane	3.83	0.18	0.067	0.91	0.336
Hexanes	5.63	0.10	0.042	1.21	0.503
Heptanes plus	47.18	0.27	0.125	9.64	6.563
	100.00	100.00	4.825	100.00	10.117

no known oil reservoirs have heptanes + of less than 11%

Properties of Heptanes plus			
API gravity @ 60° F.	44.5		
Specific gravity @ 60/60° F.	0.8041		0.802
Molecular weight	171	103 (assumed)	169

Calculated separator gas gravity (air = 1.000) = 0.688

Calculated gross heating value for separator gas = 1224 BTU per cubic foot of dry gas @ 15.025 psia and 60° F.

Primary separator gas collected @ 490 psig and 78 °F.

Primary separator liquid collected @ 490 psig and 78 °F.

Primary separator gas/separator liquid ratio 3588 SCF/Bbl @ 78°F.

Primary separator liquid/stock tank liquid ratio 1.237 Bbls @ 78°F./per Bbl @ 60°F.

Primary separator gas/well stream ratio 800.17 MSCF/MMSCF

Stock tank liquid/well stream ratio 180.30 Bbls/MMSCF

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File RFL 79619

Well State 36 No. 1

Pressure-Volume Relations of Reservoir Fluid at 196°F.
(Constant Composition Expansion)

Pressure PSIG		Relative Volume
8000		0.8946
7630		0.9034
7255	Reservoir Pressure	0.9115
7100		0.9172
6700		0.9291
6300		0.9421
6000		0.9532
5700		0.9655
5450		0.9769
5300		0.9843
5150		0.9929
5050		0.9974
5018	Dew Point Pressure	1.0000
5008		1.0006
4950		1.0049
4850		1.0119
4700		1.0240
4500		1.0422
4250		1.0687
3950		1.1089
3500		1.1860
3000		1.3198
2500		1.5253
2000		1.8695
1600		2.3295
1300		2.8763
1000		3.7825

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75207

File RFL 79619
Well State 36 No. 1

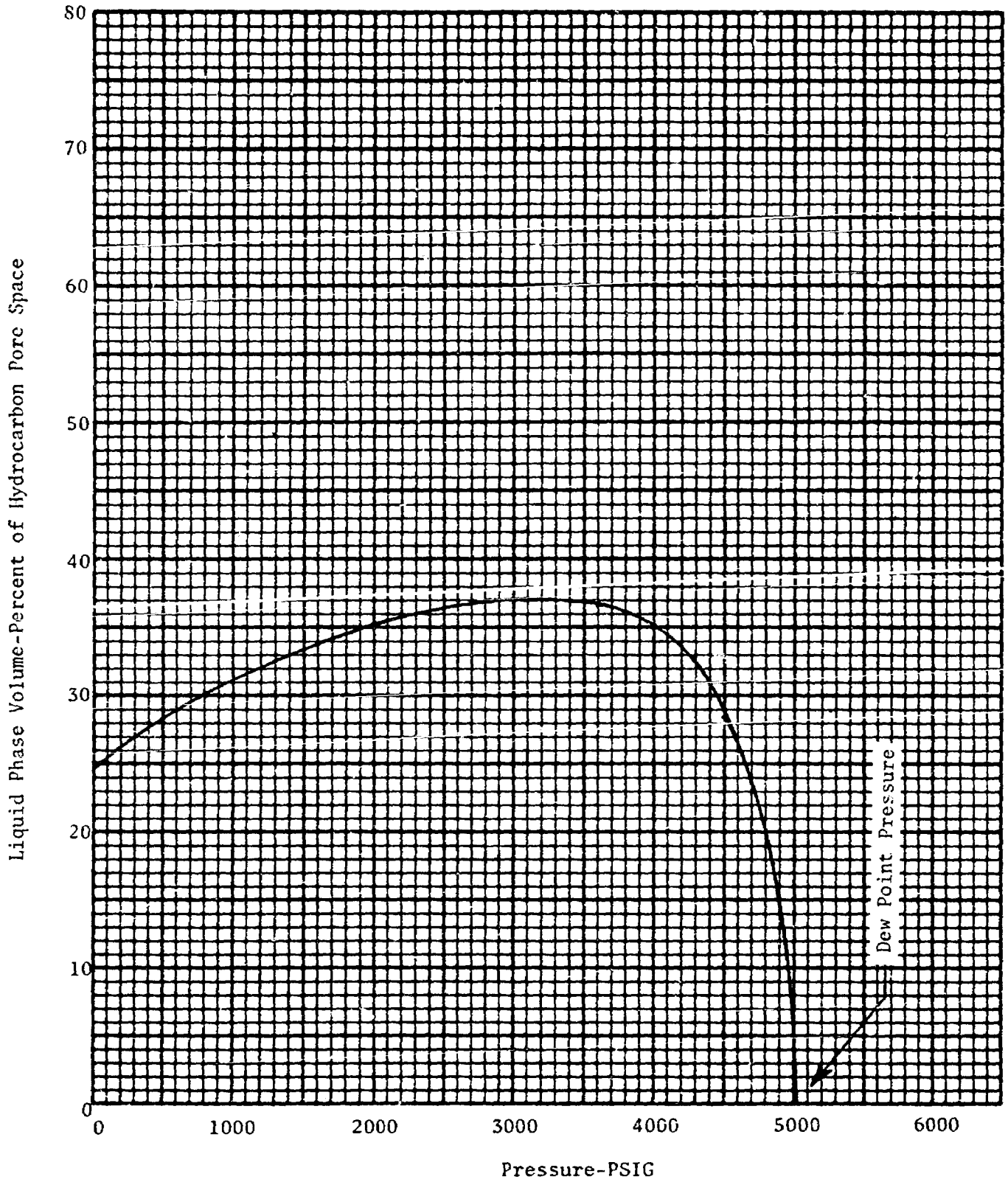
Retrograde Condensation During Gas Depletion at 196 °F.

Pressure PSIG	Retrograde Liquid Volume Percent of Hydrocarbon Pore Space
5018 Dew Point Pressure	0.0
5012	0.8
5008	1.4
4950	11.2
4850	17.8
4700	23.7
4500	28.6
4300	32.9
3600	36.7
2800	37.0
2000	35.2
1300	32.5
700	29.7
0	24.5

@ 3150 37.1% this is the max for the liquids

Retrograde Liquid Accumulation During Depletion at 196°F.

Company Getty Oil Company **Formation** Wolfcamp
Well State 36 No. 1 **County** Lea
Field Wildcat **State** New Mexico



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

February 27, 1980

Re: CASE NO. 6608
ORDER NO. R-6088-A and R-6088-B

Mr. William F. Carr
Campbell and Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Applicant:

OCD (Getty Oil Company)

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

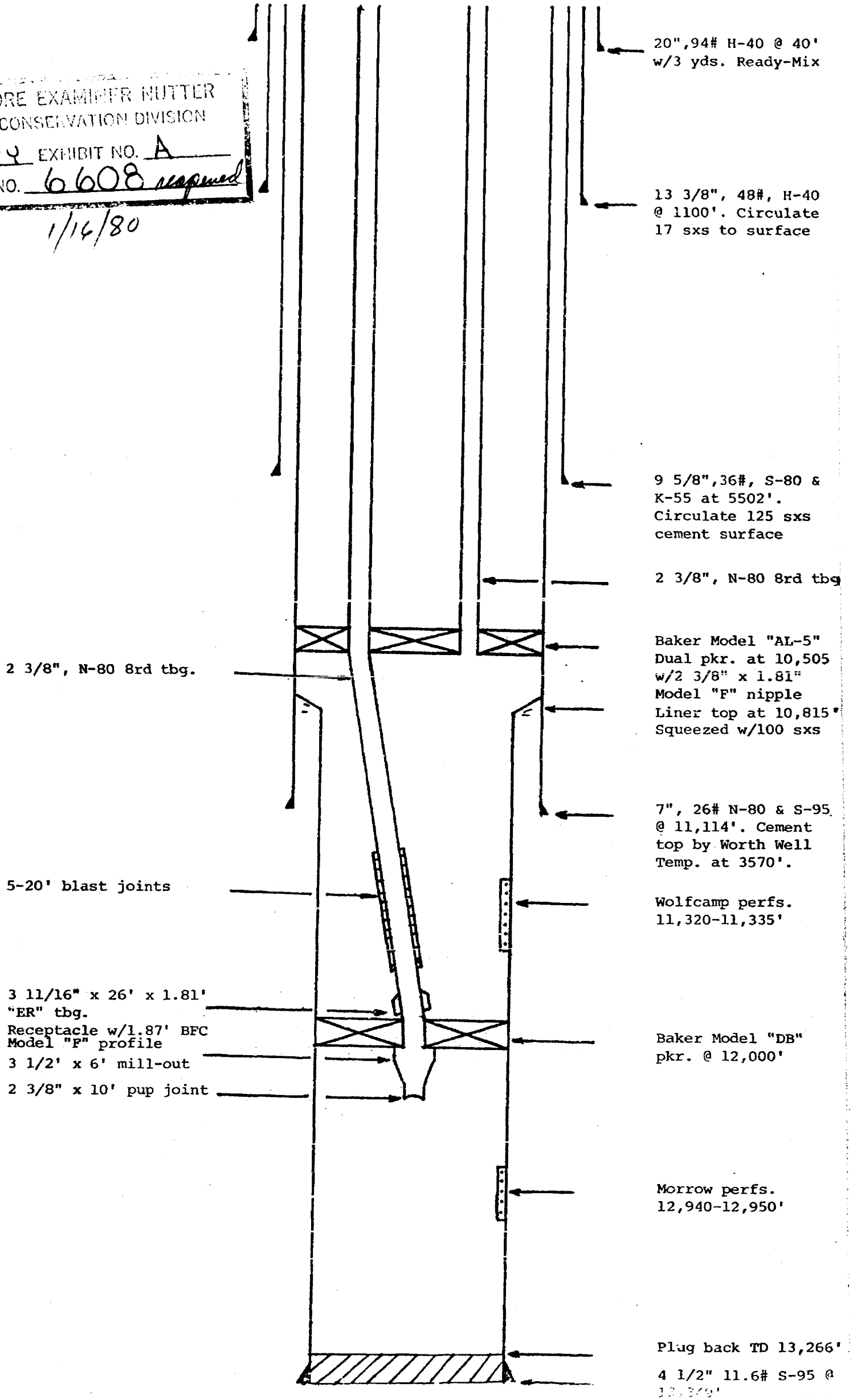
Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other

GETTY "36" STATE COM. NO. 1
MORROW-WOLFCAMP DUAL COMPLETION
LEA COUNTY, NEW MEXICO

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
GETTY EXHIBIT NO. A
CASE NO. 6608 reopened
1/16/80



20",94# H-40 @ 40' w/3 yds. Ready-Mix

13 3/8", 48#, H-40 @ 1100'. Circulate 17 sxs to surface

9 5/8",36#, S-80 & K-55 at 5502'. Circulate 125 sxs cement surface

2 3/8", N-80 8rd tbg

2 3/8", N-80 8rd tbg.

Baker Model "AL-5" Dual pkr. at 10,505 w/2 3/8" x 1.81" Model "F" nipple

Liner top at 10,815' Squeezed w/100 sxs

7", 26# N-80 & S-95 @ 11,114'. Cement top by Worth Well Temp. at 3570'.

5-20' blast joints

Wolfcamp perfs. 11,320-11,335'

3 11/16" x 26' x 1.81' "ER" tbg.

Receptacle w/1.87' BFC Model "F" profile

3 1/2' x 6' mill-out

2 3/8" x 10' pup joint

Baker Model "DB" pkr. @ 12,000'

Morrow perfs. 12,940-12,950'

Plug back TD 13,266'

4 1/2" 11.6# S-95 @ 13,349'

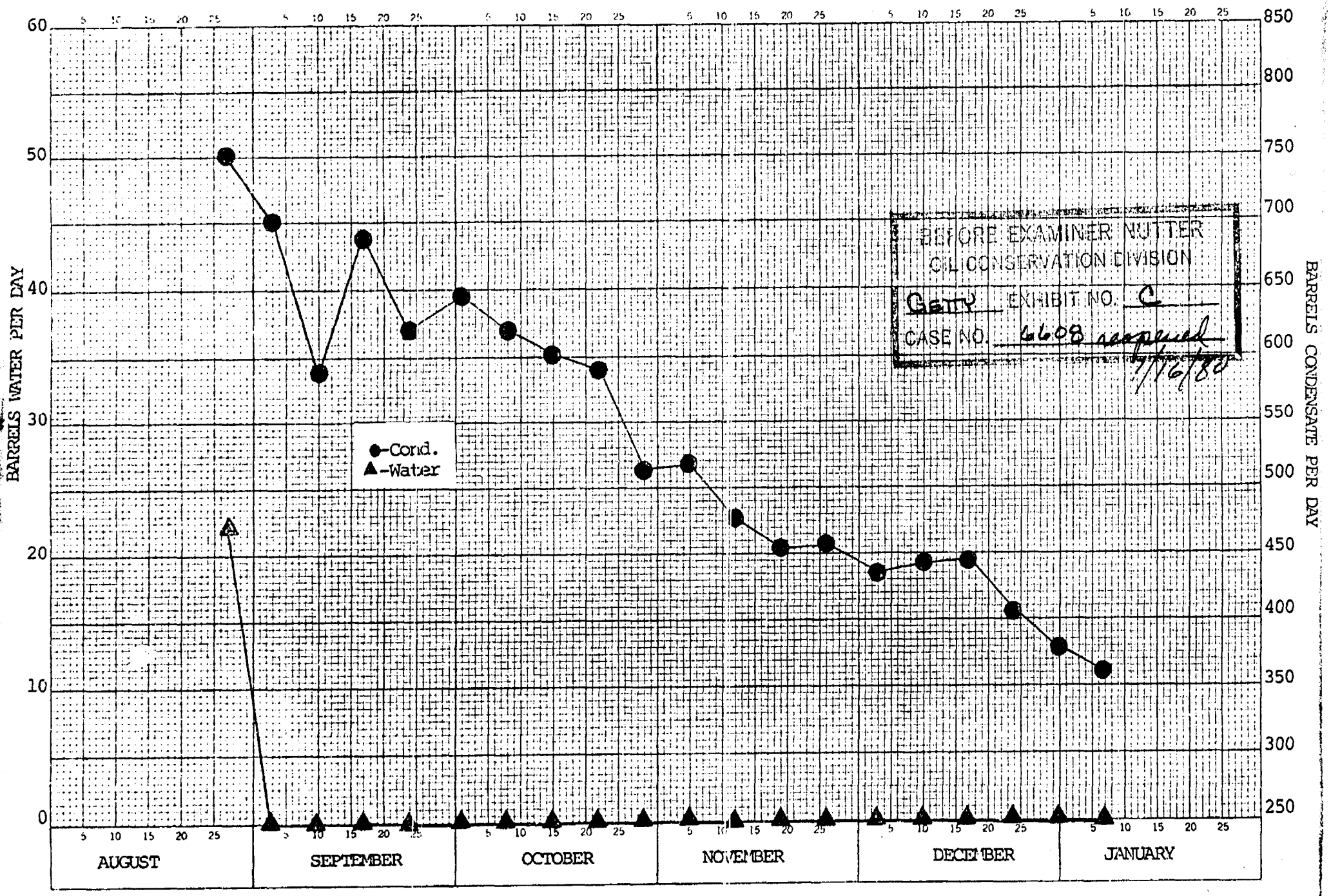
WELL TESTS
GETTY 36 STATE COM. WELL NO. 1 - WOLFCAMP

DATE	MCFGPD	CONDENSATE BBLS/DAY	WATER BBLS/DAY	GOR
8/27/79	3822	752	22	5082/1
9/3/79	3333	701	0	4755/1
9/10/79	2980	589	0	5060/1
9/17/79	2808	685	0	4099/1
9/24/79	2801	620	0	4518/1
10/1/79	2866	645	0	4444/1
10/8/79	2772	620	0	4472/1
10/15/79	2594	605	0	4288/1
10/22/79	2425	590	0	4110/1
10/29/79	2143	514	0	4170/1
11/5/79	2287	516	0	4432/1
11/12/79	2197	477	0	4596/1
11/19/79	2117	454	0	4663/1
11/26/79	2128	457	0	4655/1
12/3/79	2181	435	0	5015/1
12/10/79	2089	442	0	4727/1
12/17/79	2052	445	0	4611/1
12/24/79	2138	406	0	5267/1
12/31/79	2096	378	0	5544/1
1/7/80	2117	360	0	5882/1

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
GETTY EXHIBIT NO. B
CASE NO. 6608

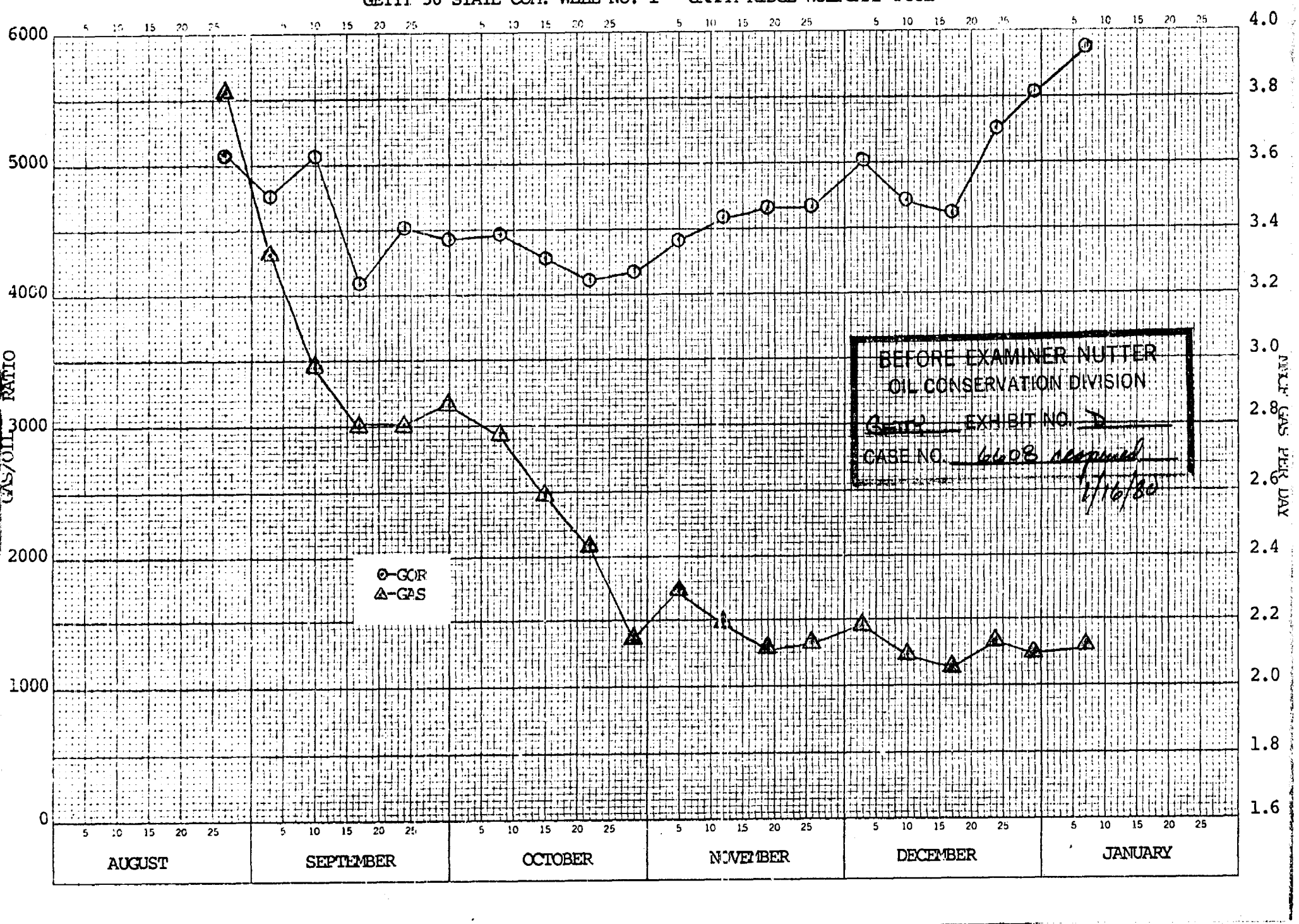
WELL TESTS

GETTY 36 STATE COM WELL NO. 1 - GRAMA RIDGE WOLFCAMP POOL



WELL TESTS

GETTY 36 STATE COM. WELL NO. 1 - GRAMA RIDGE WOLFCAMP POOL



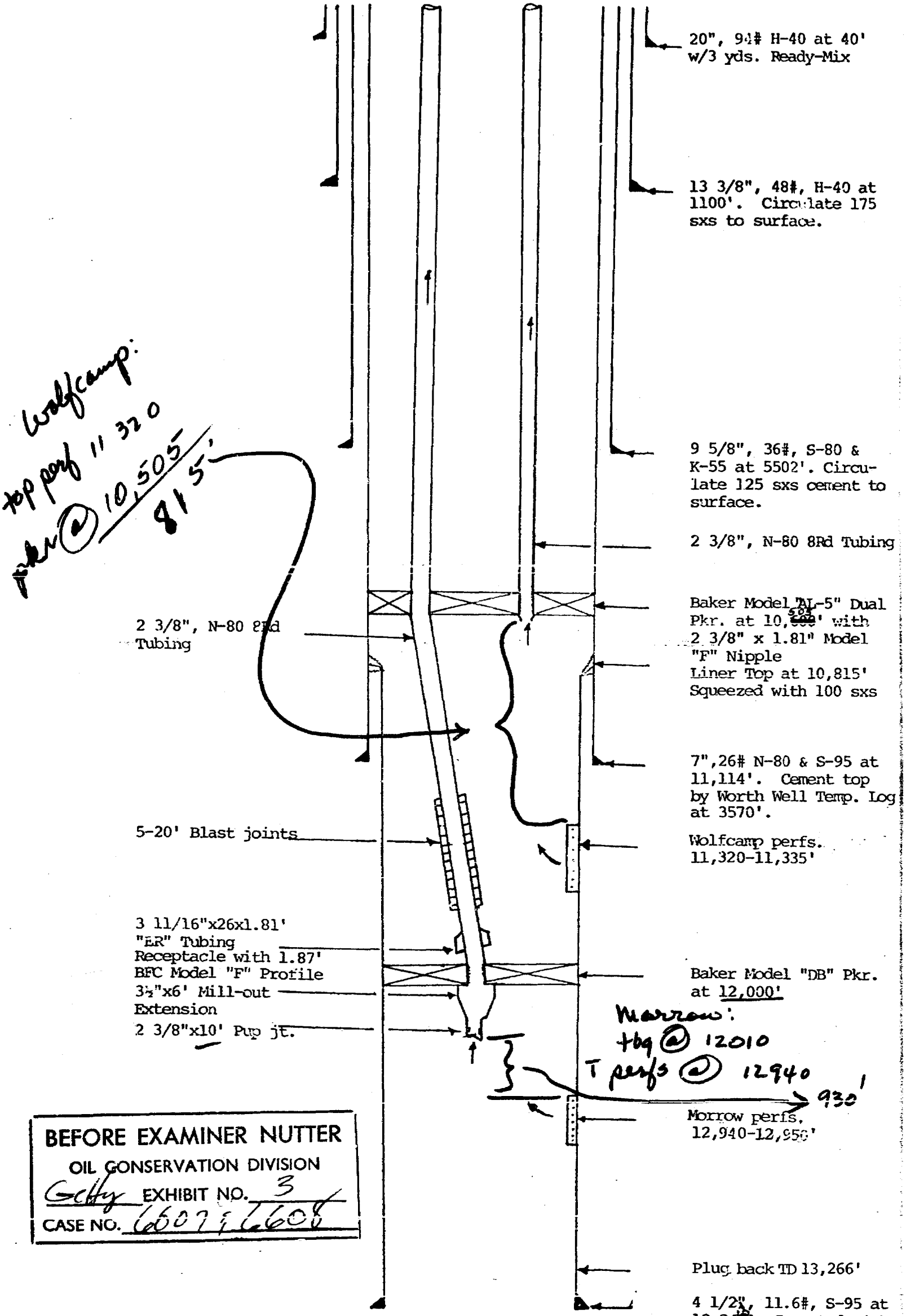
EXHIBIT

GETTY "36" STATE COM. NO. 1

MORROW-WOLFCAMP DUAL COMPLETION

LEA COUNTY, NEW MEXICO

MYM



BEFORE EXAMINER NUTTER

OIL CONSERVATION DIVISION

Getty EXHIBIT NO. 3

CASE NO. 6607 & 6608

JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONE 505 393-5398

HOBBS, NEW MEXICO 88240

COMPANY: Getty Oil Company

WELL: Getty 36 State Com, No. 1 FIELD: Undesignated Wolfcamp

CHRONOLOGICAL PRESSURE DATA

DATE	STATUS OF WELL	TIME	ELASPED TIME HRS.	ELASPED TIME MIN.	SURFACE PRESSURE TBG	SURFACE PRESSURE CSG	BHP @ (10450')
1979 7/4	Shut in 1.0 hr. Run Tandem Bombs & Hung Bombs off @ 10450'	11:30 AM	1	00	4865	PKR	7051
	Shut in	12:30	2	00	–	–	7051
	"	1:30	3	00	–	–	7057
	"	2:30	4	00	–	–	7057
	"	3:30	5	00	–	–	7057
	"	4:30	6	00	–	–	7057
	"	5:30	7	00	–	–	7057
	"	6:30	8	00	–	–	7057
	Attempted to PUll BOMBS	7:30	9	00	–	–	7057

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 4
CASE NO. 6607 & 6608

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6608
Order No. R-6088-B

IN THE MATTER OF CASE 6608 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-6088, WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE GRAMA RIDGE-WOLFCAMP POOL, LEA COUNTY, NEW MEXICO, INCLUDING A PROVISION FOR 160-ACRE PRORATION UNITS.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 16, 1980, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 26th day of February, 1980, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-6088, dated August 28, 1979, the Division created, defined, and classified the Grama Ridge-Wolfcamp Oil Pool, Lea County, New Mexico, and temporary special rules and regulations were promulgated therefor, including a provision for 160-acre spacing units.

(3) That pursuant to the provisions of Order No. R-6088, this case was reopened to allow the operators in the subject pool to appear and show whether the Grama Ridge-Wolfcamp Pool is in fact an oil reservoir or a gas reservoir, and if it is an oil reservoir, to show cause why said pool should not be developed on less than 160-acre spacing units.

(4) That the evidence establishes that the Grama Ridge-Wolfcamp Pool reservoir is not an oil reservoir, nor is it a gas reservoir in the usual sense, but that it is in fact a retrograde condensate gas reservoir.

(5) That the Grama Ridge-Wolfcamp Pool should be reclassified in accordance with Finding No. (4) above, and it should be redesignated as the Grama Ridge-Wolfcamp Gas Pool.

(6) That the Special Rules and Regulations promulgated by Order No. R-6088 should be rescinded, and new Special Rules and Regulations pertinent to a retrograde gas condensate reservoir promulgated.

(7) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Grama Ridge-Wolfcamp Gas Pool should be subject to the well location and acreage dedication requirements of Rule 104 C II of the Division Rules and Regulations.

(8) That insufficient evidence was available at the January 16, 1980, hearing of this case to determine the proper rate of withdrawals on a permanent basis for the Grama Ridge-Wolfcamp Gas Pool, and therefore another hearing should be called in May, 1980, at which time all interested parties should appear and present evidence as to the maximum efficient rate of withdrawals which should be permitted in this retrograde condensate gas reservoir.

(9) That pending an order issuing from the aforesaid May hearing on this matter, withdrawals from wells completed in the subject reservoir should be limited to some reasonable amount to avert waste and prevent reservoir damage.

(10) That pending such order, a reasonable maximum rate of withdrawal from each well in the Grama Ridge-Wolfcamp Gas Pool is 1500 MCF of gas per day at the surface.

(11) That an order based on the above findings is in the interest of conservation, will prevent waste, will not impair but will protect correlative rights, and should be approved.

IT IS THEREFORE ORDERED:

(1) That the Grama Ridge-Wolfcamp Pool as heretofore classified and defined is hereby reclassified as a retrograde gas condensate reservoir and redesignated as the Grama Ridge-Wolfcamp Gas Pool, with vertical limits comprising the Wolfcamp formation and horizontal limits comprising the following described area:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 36: SW/4

(2) That Order No. R-6088 which promulgated Special Rules and Regulations for said Grama Ridge-Wolfcamp Pool is hereby rescinded and new Special Rules and Regulations for the Grama Ridge-Wolfcamp Gas Pool, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR
THE GRAMA RIDGE-WOLFCAMP GAS POOL

RULE 1. Each well completed or recompleted in the Grama Ridge-Wolfcamp Gas Pool or in the Wolfcamp formation within one mile of the Grama Ridge-Wolfcamp Gas Pool, and not nearer to nor within the limits of another designated Wolfcamp pool, shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Grama Ridge-Wolfcamp Gas Pool shall be located on a standard unit containing 320 acres, more or less, comprising any two contiguous quarter sections of a single governmental section, being a legal subdivision of the United States Public Land Surveys. Exceptions to this rule are subject to the provisions of Rule 104 D II of the Division Rules and Regulations.

RULE 3. Each well shall be located no nearer than 660 feet to the nearest side boundary of the tract nor nearer than 1980 feet to the nearest end boundary of the tract. Exceptions to this rule are subject to the provisions of Rule 104 F of the Division Rules and Regulations.

RULE 4. A gas well on a standard unit in the Grama Ridge-Wolfcamp Gas Pool shall be permitted to produce no more than 1,500 MCF of gas per day at standard surface conditions during the effective period of these pool rules. This shall be known as the daily allowable.

RULE 5. The operator of each newly completed well shall cause a gas-liquid ratio test to be taken on the well upon recovery of all load oil from the well. Any well which is shut in shall be exempted from the gas-liquid ratio test requirement so long as it remains shut in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Rule 6.

RULE 6. Gas-liquid ratio tests shall be taken on all wells during the months of April and October of each year. The initial gas-liquid ratio test shall suffice as the first semi-annual test. Tests shall be 24-hour tests, being the final 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Division Form C-116 on or before the 10th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio tests, each operator shall file with the appropriate district office of the Division a test schedule for its wells specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators.

Special tests shall also be taken at the request of the Division Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with the procedures outlined hereinabove, including notification to the Division and offset operators.

RULE 7. An initial shut-in pressure test shall be taken on each gas well and shall be reported to the Division on Form C-125.

RULE 8. Any well completed after the effective date of these rules shall receive an allowable only upon receipt by the appropriate Division district office of Division Forms C-104 and C-116, properly executed. The District Supervisor of the Division's district office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the amounts set forth in Rule 4 of these rules.

RULE 9. The Grama Ridge-Wolfcamp Gas Pool gas proration period shall be the proration month which shall begin at 7 a.m. on the first day of the month and shall end at 7 a.m. on the first day of the next succeeding month.

RULE 10. (a) Any gas well which has an underproduced status at the end of any gas proration period, shall carry such underproduction into subsequent periods.

(b) Underproduction in excess of three times the current monthly allowable shall not be carried forward but shall be cancelled. For the purpose of these rules, the monthly allowable shall be the daily allowable times the number of days in the month.

(c) Overproduction during any month shall be applied to a well's cumulative underproduction, if any, calculated in accordance with Paragraphs (a) and (b) above.

RULE 11. Any gas well which has an overproduced status at the end of any gas proration period shall carry such overproduction into subsequent periods. If at any time a well is overproduced an amount exceeding three times its current monthly allowable, it shall be shut in during that month and each succeeding month until the well is overproduced less than three times its current monthly allowable.

RULE 12. The allowable assigned to a well during any one month in excess of the production for the same month shall be applied against the overproduction carried into such period in determining the amount of overproduction, if any, which has not been compensated for.

RULE 13. The Division may allow overproduction to be compensated for at a lesser rate than would be the case if the well were completely shut in upon a showing after notice and hearing that complete shut in of the well would result in material damage to the well or reservoir.

RULE 14. The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be reported to the Division on Form C-115 so as to reach the Division on or before the 24th day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the produced gas.

RULE 15. Each purchaser or taker of gas shall submit a report to the Division so as to reach the Division on or before the 15th day of the month next succeeding the month in which the gas was purchased or taken. Such report shall be filed on Form C-111 with the wells being listed in the same order as they are listed on the appropriate proration schedule.

RULE 16. Failure to comply with any provision of these rules shall result in the immediate cancellation of allowable assigned to the affected well. No further allowable shall be assigned until all rules and regulations have been complied with. The Division Director shall notify the operator of the well and purchaser in writing of the date of allowable cancellation and the reason therefor.

RULE 17. All transporters or users of gas shall file gas well connection notices with the Division as soon as possible after the date of connection.

IT IS FURTHER ORDERED:

(1) That the cumulative casinghead gas over/under production status for each well in the Grama Ridge-Wolfcamp Pool immediately prior to the effective date of this order shall be the beginning status for wells in the Grama Ridge-Wolfcamp Gas Pool at 7:00 o'clock a.m. on the effective date of this order.

(2) That the effective date of this order shall be March 1, 1980.

(3) That, pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, existing wells in the Grama Ridge-Wolfcamp Gas Pool shall have dedicated thereto 320 acres, in accordance with the foregoing pool rules or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 320 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable.

(4) That this cause shall be reopened at an examiner hearing during May, 1980, to permit the operators in said pools to appear and present evidence to establish the proper rates of production for wells in the subject pool.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

CASE NO. 6608
Order No. R-6088-A

APPLICATION OF GETTY OIL COMPANY FOR POOL CREATION AND SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE DIVISION:

It appearing to the Division that Order No. R-6088, dated August 28, 1979, does not correctly state the intended order of the Division,

IT IS THEREFORE ORDERED:

(1) That Paragraph (1) on Page 2 of Order No. R-6088, Case No. 6608, be and the same is hereby corrected to read in its entirety as follows:

"(1) That effective September 1, 1979, a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production, is hereby created and designated the Grama Ridge-Wolfcamp Pool, with vertical limits comprising the Wolfcamp formation and horizontal limits comprising the following-described area:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 36: SW/4"

(2) That this order shall be effective nunc pro tunc as of August 28, 1979.

DONE at Santa Fe, New Mexico, on this 26th day of February, 1980.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

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fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6608
Order No. R-6088

APPLICATION OF GETTY OIL COMPANY
FOR POOL CREATION AND SPECIAL
POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 25, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 28th day of August, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Getty Oil Company, seeks the creation of a new oil pool for Wolfcamp production in Lea County, New Mexico.

(3) That the applicant also seeks the promulgation of special rules for said pool, including a provision for 160-acre proration units.

(4) That the evidence presently available indicates that applicant's Getty 36 State Well No. 1, located in Unit F of Section 36, Township 21 South, Range 34 East, NMPM, Lea County, New Mexico, has discovered a separate common source of supply which should be designated the Grama Ridge-Wolfcamp Pool; that the vertical limits of the pool should be the Wolfcamp formation, and that the horizontal limits of said pool should be as follows:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 36: NW/4

(5) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 160-acre spacing units should be promulgated for the Grama Ridge-Wolfcamp Pool.

(6) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(7) That the temporary special rules and regulations should provide for a depth bracket allowable of 605 barrels.

(8) That the temporary special rules and regulations should be established for a 6-month period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(9) That this case should be reopened at an examiner hearing in January, 1980, at which time the operators in the subject pool should be prepared to appear and show whether this pool should be classified as an oil reservoir or as a gas reservoir, and if it is an oil reservoir, to show cause why it should not be developed on 40-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That effective August 1, 1979, a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production, is hereby created and designated the Grama Ridge-Wolfcamp Pool, with vertical limits comprising the Wolfcamp formation and horizontal limits comprising the following-described area:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 36: SW/4

(2) That temporary Special Rules and Regulations for the Grama Ridge-Wolfcamp Pool, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE GRAMA RIDGE-WOLFCAMP POOL

RULE 1. Each well completed or recompleted in the Grama

Ridge-Wolfcamp Pool or in the Wolfcamp formation within one mile of the Grama Ridge-Wolfcamp Pool, and not nearer to nor within the limits of another designated Wolfcamp pool, shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Grama Ridge-Wolfcamp Pool shall be located on a unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Lands Survey.

RULE 3. Each well completed or recompleted in said pool shall not be drilled closer than 660 feet to any quarter section line nor closer than 330 feet to any quarter-quarter section line.

RULE 4. For good cause shown, the Division Director may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising less than 160 acres. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Division Director may approve the application if, after a period of 30 days, no offset operator has entered an objection to the formation of such non-standard unit.

The allowable assigned to any such non-standard unit shall bear the same ratio to a standard allowable in the Grama Ridge-Wolfcamp Pool as the acreage in such non-standard unit bears to 160 acres.

RULE 5. A standard proration unit (158 through 162 acres) in the Grama Ridge-Wolfcamp Pool shall be assigned a depth bracket allowable of 605 barrels, subject to the market demand percentage factor, and in the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit in any proportion.

IT IS FURTHER ORDERED:

(3) That the locations of all wells presently drilling to or completed in the Grama Ridge-Wolfcamp Pool or in the Wolfcamp formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs district office of the Division in writing of the name and location of the well on or before September 1, 1979.

(4) That, pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, contained in Chapter 271, Laws of 1969, existing wells in the Grama Ridge-Wolfcamp Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 160 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the Grama Ridge-Wolfcamp Pool or in the Wolfcamp formation within one mile thereof shall receive no more than one-quarter of a standard allowable for the pool.

(5) That this case shall be reopened at an examiner hearing in January, 1980, at which time the operators in the subject pool should be prepared to appear and show whether the subject pool is in fact an oil reservoir or a gas reservoir, and if it is an oil reservoir, to show cause why the Grama Ridge-Wolfcamp Pool should not be developed on 40-acre spacing units.

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

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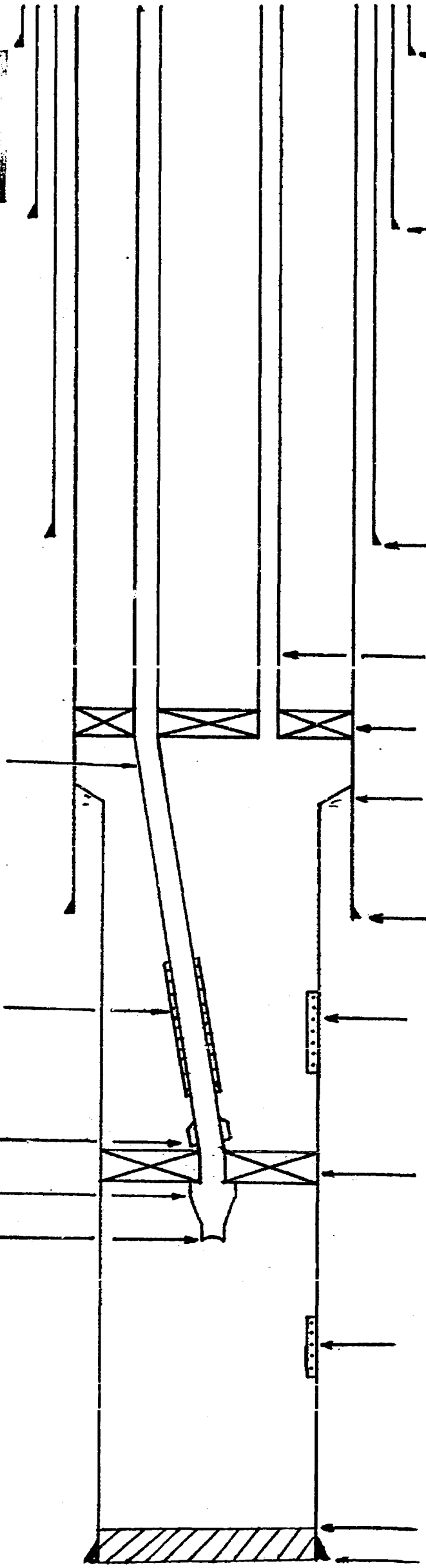
GETTY "36" STATE COM. NO. 1
MORROW-WOLFCAMP DUAL COMPLETION
LEA COUNTY, NEW MEXICO

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
GETTY EXHIBIT NO. A
CASE NO. 6608 reopened
1/16/80



20",94# H-40 @ 40'
w/3 yds. Ready-Mix

13 3/8", 48#, H-40
@ 1100'. Circulate
17 sxs to surface

9 5/8",36#, S-80 &
K-55 at 5502'.
Circulate 125 sxs
cement surface

2 3/8", N-80 8rd tbg

Baker Model "AL-5"
Dual pkr. at 10,505'
w/2 3/8" x 1.81"
Model "F" nipple
Liner top at 10,815'
Squeezed w/100 sxs

2 3/8", N-80 8rd tbg.

7", 26# N-80 & S-95
@ 11,114'. Cement
top by Worth Well
Temp. at 3570'.

5-20' blast joints

Wolfcamp perfs.
11,320-11,335'

3 11/16" x 26' x 1.81'
"ER" tbg.
Receptacle w/1.87' BFC
Model "F" profile
3 1/2' x 6' mill-out
2 3/8" x 10' pup joint

Baker Model "DB"
pkr. @ 12,000'

Morrow perfs.
12,940-12,950'

Plug back TD 13,266'

4 1/2" 11.6# S-95 @

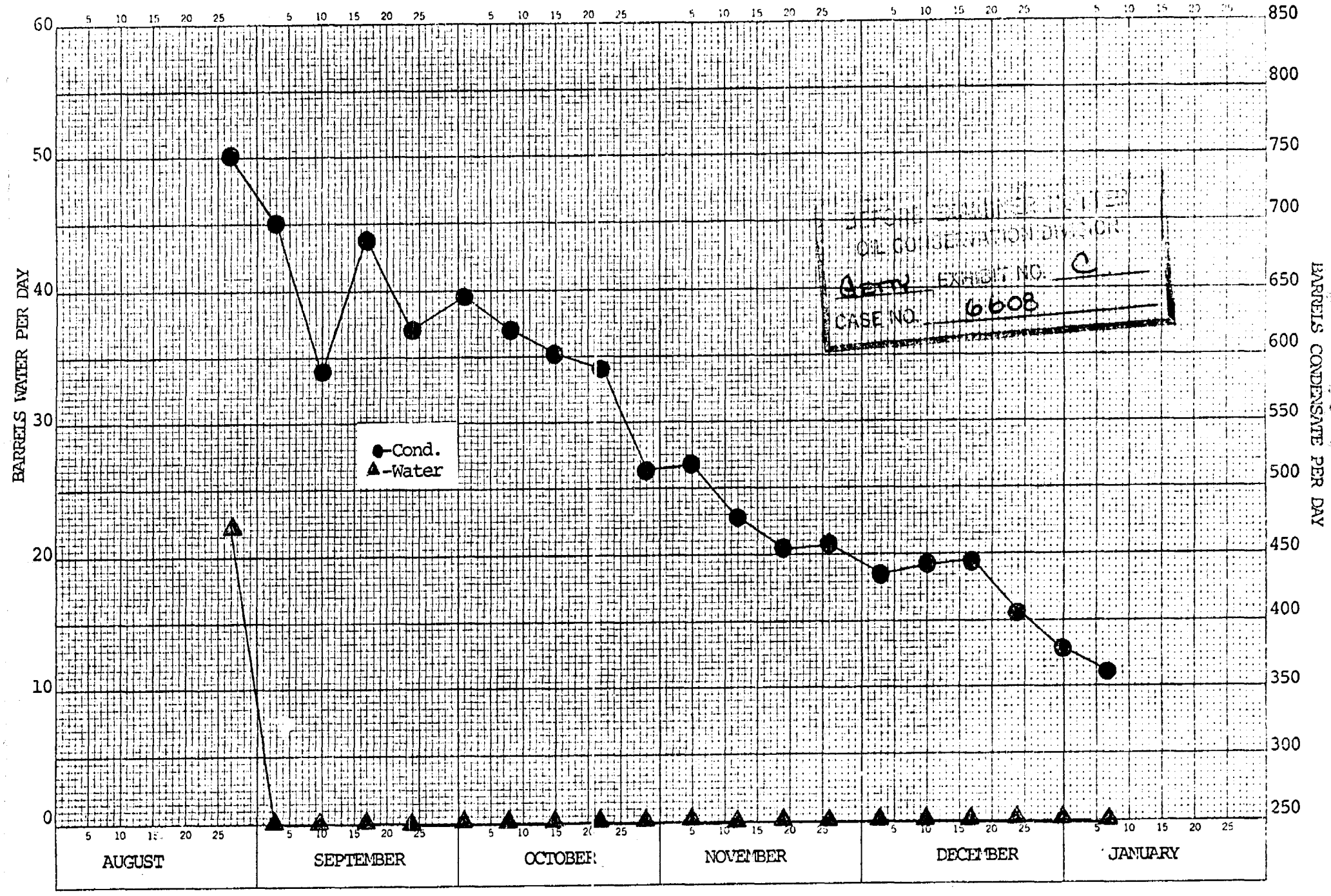
WELL TESTS
GETTY 36 STATE COM. WELL NO. 1 - WOLFCAMP

DATE	MCFGPD	CONDENSATE BBLS/DAY	WATER BBLS/DAY	GOR
8/27/79	3822	752	22	5082/1
9/3/79	3333	701	0	4755/1
9/10/79	2980	589	0	5060/1
9/17/79	2808	685	0	4099/1
9/24/79	2801	620	0	4518/1
10/1/79	2866	645	0	4444/1
10/8/79	2772	620	0	4472/1
10/15/79	2594	605	0	4288/1
10/22/79	2425	590	0	4110/1
10/29/79	2143	514	0	4170/1
11/5/79	2287	516	0	4432/1
11/12/79	2197	477	0	4596/1
11/19/79	2117	454	0	4663/1
11/26/79	2128	457	0	4655/1
12/3/79	2181	435	0	5015/1
12/10/79	2089	442	0	4727/1
12/17/79	2052	445	0	4611/1
12/24/79	2138	406	0	5267/1
12/31/79	2096	378	0	5544/1
1/7/80	2117	360	0	5882/1

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
GETTY EXHIBIT NO. B
CASE NO. 6608 reopened
1/16/80

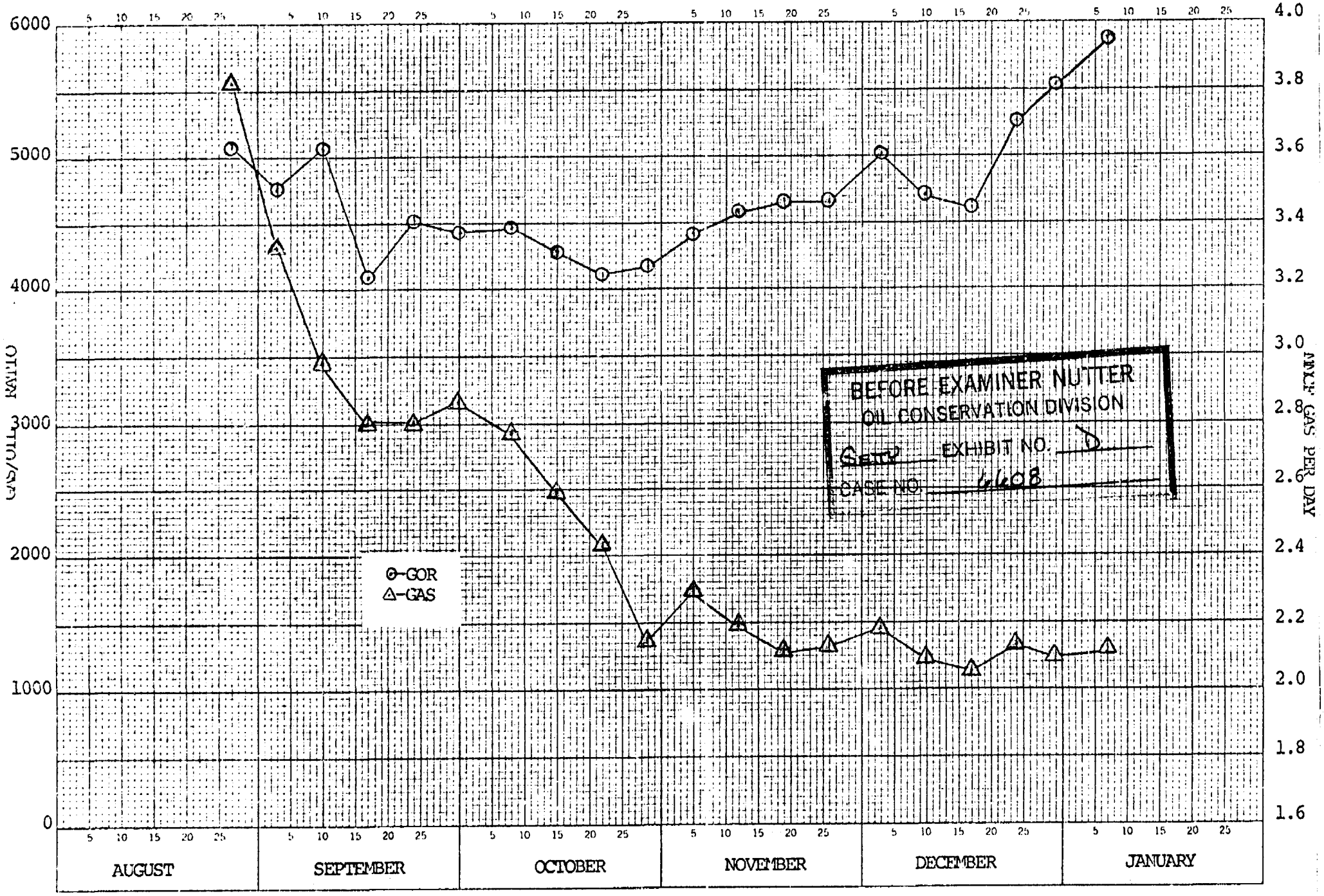
WELL TESTS

GETTY 36 STATE COM WELL NO. 1 - GRAMA RIDGE WOLFCAMP POOL



WELL TESTS

GETTY 36 STATE COM. WELL NO. 1 - GRAMA RIDGE WOLFCAMP POOL



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

Preliminary Report

for

GETTY OIL COMPANY

State 36 No. 1 Well
Wildcat
Lea County, New Mexico

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75207
November 15, 1979

RESERVOIR FLUID DIVISION

Getty Oil Company
P. O. Box 730
Hobbs, New Mexico 88240

Attention: Mr. Peter Botes

Subject: Preliminary Report
Reservoir Fluid Study
State 36 No. 1 Well
Wildcat
Lea County, New Mexico
Our File Number: RFL 79619

Gentlemen:

Duplicate samples of separator gas and separator liquid were collected from the subject well by Tefteller, Inc. on September 9, 1979. These samples were forwarded to our Dallas laboratory for use in a reservoir fluid study. Presented in this preliminary report are the results obtained to date using these samples.

Upon arrival in the laboratory the separator gas was analyzed through heptanes plus using chromatography, while the separator liquid was also analyzed to heptanes plus using low temperature fractional distillation equipment along with chromatography. After the separator gas flow rate was corrected using factors which are shown on page one, the producing gas-liquid ratio was calculated to be 4438 cubic feet of separator gas at 15.025 psia and 60°F. per barrel of stock tank liquid at 60°F. In the laboratory it was determined that this was the equivalent of 3588 standard cubic feet of separator gas per barrel of separator liquid at 490 psig and 78°F. The measured compositions of the separator products were used in conjunction with this producing gas-liquid ratio to calculate the composition of the producing well stream material. These compositions are shown on page two. In the laboratory the separator products were physically recombined to this producing gas-liquid ratio for use in the entire reservoir fluid study.

A portion of the reservoir fluid was charged to a high pressure visual cell and heated to the reservoir temperature of 196°F. During constant composition expansion pressure volume relations performed at this temperature, the fluid existed as a single phase gas at pressures above 5018 psig at which pressure a retrograde dew point was observed. A comparison of this dew point pressure to the reservoir pressure of 7255 psig indicates that the fluid currently exists in the reservoir in an undersaturated condition. The results of the pressure volume relation measurements are shown on page three.

The sample in the cell was repressured to a single phase condition after which it was subjected to a constant volume depletion. After the sample volume was established at the dew point pressure, the sample was subjected to a series of pressure expansions and constant pressure displacements with each displacement terminating at the original sample volume at the dew point pressure. During each of these displacements the volume of retrograde liquid accumulation was monitored.

These data presented on pages four and five show that the maximum accumulation is approximately 37.1 percent of the hydrocarbon pore space occurring at approximately 3150 psig. The liquid phase saturation at 0 pressure and 196°F. was 24.5 percent of the hydrocarbon pore space.

The constant volume depletion will be performed in our laboratory one more time in a similar manner described above, however, instead of measuring the liquid accumulation, the main purpose of the second depletion will be to analyze the equilibrium gas phase produced at various depletion pressure points. Volumetric data such as expansions from reservoir conditions to atmospheric conditions will also be measured at this time. These data will be sent to you as soon as it is completed.

We wish to thank Getty Oil Company for this opportunity to be of service. If you should have any questions regarding these data or if we may be of further assistance, please do not hesitate to contact us.

Very truly yours,

Core Laboratories, Inc.

P. L. Moses, Manager
Reservoir Fluid Analysis

PLM:FBV:sm
6 cc.-Addressee
1 cc.-Mr. Jim Eakin
Getty Oil Co.
P. O. Box 1231
Midland, Texas 79702

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75207

File RFL 79619

Company Getty Oil Company — Date Sampled September 9, 1979
Well State 36 No. 1 — County Lea
Field Wildcat — State New Mexico

FORMATION CHARACTERISTICS

Formation Name	Wolfcamp	
Date First Well Completed	July 2, 19 79	
Original Reservoir Pressure	7255 PSIG @ 11328	Ft.
Original Produced Gas-Liquid Ratio	5082	SCF/Bbl
Production Rate	752	Bbls/Day
Separator Pressure and Temperature	PSIG	°F.
Liquid Gravity at 60°F.	49.7	° API
Datum	7636	Ft. Subsea

WELL CHARACTERISTICS

Elevation	3692 KB	Ft.
Total Depth	13266 PBTD	Ft.
Producing Interval	11320-11335	Ft.
Tubing Size and Depth	2-3/8 In. to 10495	Ft.
Open Flow Potential	7.82 (Estimated)	MMSCF/Day
Last Reservoir Pressure	~~7255~~ 6846 PSIG @ 11328	Ft.
Date	September 12, 19 79	
Reservoir Temperature	187* °F. @ 10505	Ft.
Status of Well	Flowing	
Pressure Gauge	Amerada	

SAMPLING CONDITIONS

Flowing Tubing Pressure	3510	PSIG
Flowing Bottom Hole Pressure	6092	PSIG
Primary Separator Pressure	490	PSIG
Primary Separator Temperature	78	°F.
Secondary Separator Pressure		PSIG
Secondary Separator Temperature		°F.
Field Stock Tank Liquid Gravity	49.7	° API @ 60°F.
Primary Separator Gas Production Rate	2887	MSCF/Day
Pressure Base	15.025 PSIA	
Temperature Base	60 °F.	
Compressibility Factor (F_{pv})	1.0477	
Gas Gravity (Laboratory)	0.688	
Gas Gravity Factor (F_g)	1.2056	
Stock Tank Liquid Production Rate @ 60 °F.	650.54	Bbls/Day
Primary Separator Gas/Stock Tank Liquid Ratio	4438	SCF/Bbl
or	225.33	Bbls/MMSCF
Sampled by	TI	

REMARKS:

*Temperature extrapolated to mid point of perforation = 196°F.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File RFL 79619

Well State 36 No. 1

Hydrocarbon Analyses of Separator Products and Calculated Well Stream

Component	Separator Liquid Mol Per Cent	Separator Gas Mol Per Cent	Separator Gas GPM	Well Stream Mol Per Cent	Well Stream GPM
Hydrogen Sulfide	Nil	Nil		Nil	
Carbon Dioxide	Nil	0.12		0.10	
Nitrogen	0.16	1.14		0.94	
Methane	11.74	81.81		67.81	
Ethane	8.81	10.87	2.964	10.46	
Propane	9.79	3.92	1.100	5.09	1.428
iso-Butane	2.49	0.50	0.167	0.90	0.300
n-Butane	7.04	0.91	0.293	2.13	0.685
iso-Pentane	3.33	0.18	0.067	0.81	0.302
n-Pentane	3.83	0.18	0.067	0.91	0.336
Hexanes	5.63	0.10	0.042	1.21	0.503
Heptanes plus	47.18	0.27	0.125	9.64	6.563
	100.00	100.00	4.825	100.00	10.117

Properties of Heptanes plus

API gravity @ 60° F.	44.5		
Specific gravity @ 60/60° F.	0.8041		0.802
Molecular weight	171	103 (assumed)	169

Calculated separator gas gravity (air = 1.000) = 0.688

Calculated gross heating value for separator gas = 1224 BTU per cubic foot of dry gas @ 15.025 psia and 60° F.

Primary separator gas collected @ 490 psig and 78 °F.

Primary separator liquid collected @ 490 psig and 78 °F.

Primary separator gas/separator liquid ratio 3588 SCF/Bbl @ 78°F.

Primary separator liquid/stock tank liquid ratio 1.237 Bbls @ 78°F./per Bbl @ 60°F.

Primary separator gas/well stream ratio 800.17 MSCF/MMSCF

Stock tank liquid/well stream ratio 180.30 Bbls/MMSCF

Pressure-Volume Relations of Reservoir Fluid at 196°F.
(Constant Composition Expansion)

Pressure PSIG		Relative Volume
8000		0.8946
7630		0.9034
7255	Reservoir Pressure	0.9115
7100		0.9172
6700		0.9291
6300		0.9421
6000		0.9532
5700		0.9655
5450		0.9769
5300		0.9843
5150		0.9929
5050		0.9974
5018	Dew Point Pressure	1.0000
5008		1.0006
4950		1.0049
4850		1.0119
4700		1.0240
4500		1.0422
4250		1.0687
3950		1.1089
3500		1.1860
3000		1.3198
2500		1.5253
2000		1.8695
1600		2.3295
1300		2.8763
1000		3.7825

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75207

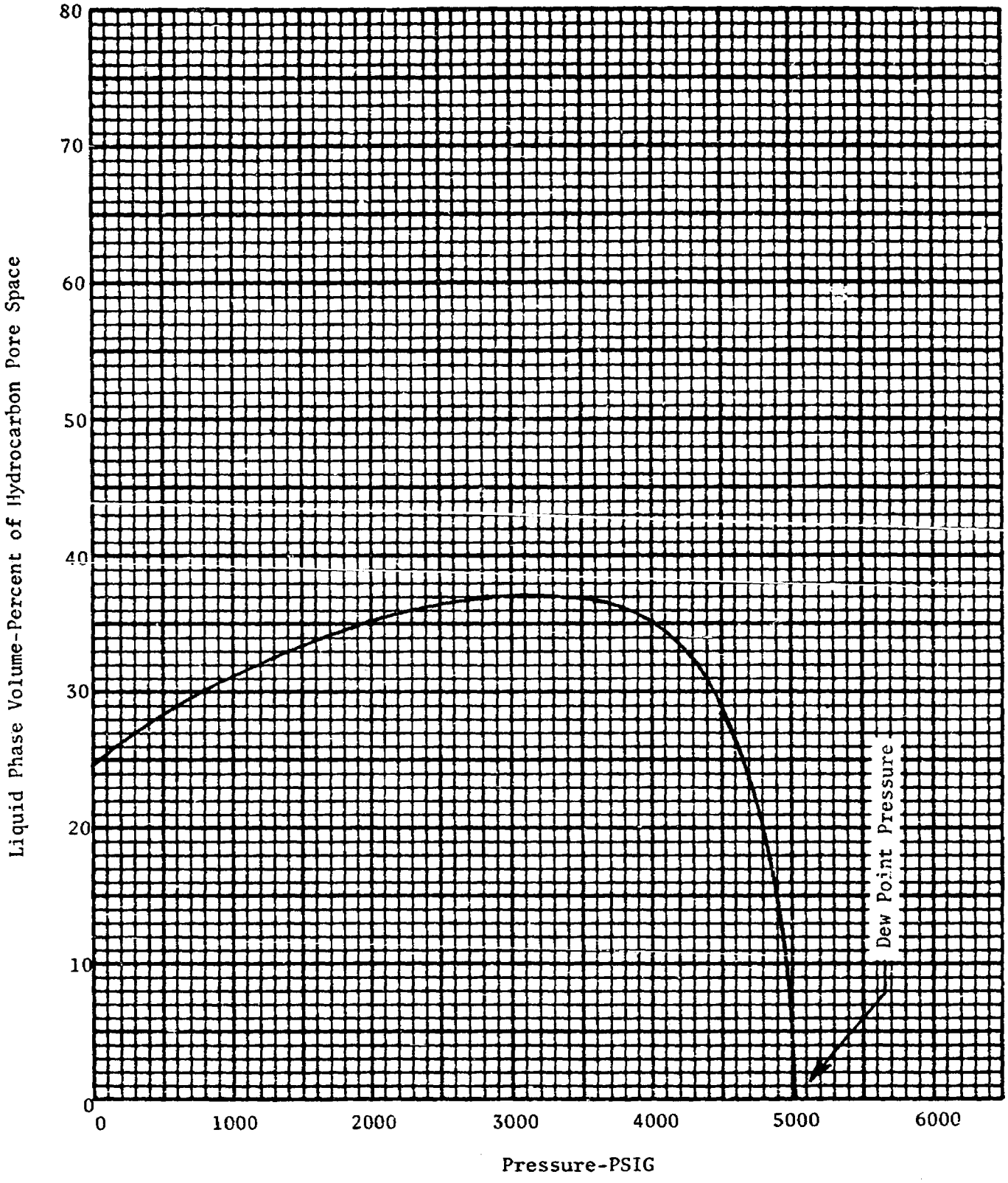
File RFL 79619
Well State 36 No. 1

Retrograde Condensation During Gas Depletion at 196 °F.

Pressure PSIG	Retrograde Liquid Volume Percent of Hydrocarbon Pore Space
5018 Dew Point Pressure	0.0
5012	0.8
5008	1.4
4950	11.2
4850	17.8
4700	23.7
4500	28.6
4300	32.9
3600	36.7
2800	37.0
2000	35.2
1300	32.5
700	29.7
0	24.5

Retrograde Liquid Accumulation During Depletion at 196°F.

Company Getty Oil Company **Formation** Wolfcamp
Well State 36 No. 1 **County** Lea
Field Wildcat **State** New Mexico



CASE 6795: Application of Torreon Oil Company for a waterflood project, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the San Luis-Mesaverde Oil Pool by the injection of water into the Menafee formation through its San Luis Fed. Wells Nos. 1 and 2, located in Unit K of Section 21, Township 18 South, Range 3 East. Applicant further seeks an administrative procedure for approval of additional producing and injection wells at unorthodox locations in said project.

CASE 6608: (Reopened and Readvertised)

In the matter of Case 6608 being reopened pursuant to the provisions of Order No. R-6088 which order created the Grama Ridge-Wolfcamp Pool with temporary special rules and regulations with provisions for 160-acre spacing. All interested parties may appear and show cause whether the Grama Ridge-Wolfcamp Pool is in fact an oil reservoir or a gas reservoir, and if it is an oil reservoir, show cause why the Grama Ridge-Wolfcamp Pool should not be developed on less than 160-acre spacing units.

CASE 6771: (Continued from January 3, 1980, Examiner Hearing)

Application of Getty Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the E/2 SW/4 of Section 31, Township 24 South, Range 37 East, and the NW/4 NE/4 and NE/4 NW/4 of Section 6, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at a standard location thereon.

CASE 6767: (Continued from January 3, 1980, Examiner Hearing)

Application of Alpha Twenty-One Production Company for two non-standard gas proration units, unorthodox well location, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard proration unit comprising the NW/4 NW/4 of Section 27, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to El Paso Natural Gas Company's Harrison Well No. 2, and also a 200-acre unit comprising the S/2 N/2 and NE/4 NW/4 of said Section 27 to be dedicated to a well to be drilled at an unorthodox location 1980 feet from the North line and 560 feet from the West line of Section 27. Applicant further seeks a finding that the drilling of the latter well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.

Dockets Nos. 3-80 and 4-80 are tentatively set for January 30 and February 13, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 16, 1980

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1980, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for February, 1980, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6787: In the matter of the hearing called by the Oil Conservation Division on its own motion to consider the approval of 12 non-standard proration units ranging in size from 261.51 acres to 334.24 acres for 320-acre spaced pools, and 19 non-standard proration units ranging in size from 162.65 acres to 207.57 acres for 160-acre spaced pools, all of the aforesaid units being in and resulting from the irregular size and shape of Sections 1 thru 7 and 18, 19, 30, and 31, along the North and West sides of Township 28 North, Range 3 West, Rio Arriba County.

CASE 6788: Application of Amoco Production Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its South Mattix Unit Well No. 35 located in Unit F of Section 15, Township 24 South, Range 37 East, to produce gas from the Fowler-Upper Paddock Pool and oil from the Fowler-Drinkard Pool thru parallel strings of tubing.

CASE 6789: Application of Knox Industries, Inc. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the well location requirements of the Scharb-Bone Springs Pool as promulgated by Order No. R-2589 to permit its New Mexico State Well No. 2 to be drilled in Unit H of Section 1, Township 19 South, Range 34 East, the E/2 NE/4 of said Section 1 to be dedicated to the well.

CASE 6790: Application of Merrion & Bayless for gas well commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to temporarily commingle certain of its Pictured Cliffs gas wells in Sections 1, 2, 3, 9, 10, and 11, Township 26 North, Range 13 West, in a common gathering system and meter the entire lease output through the purchaser's sales meter located in Unit M of said Section 7.

CASE 6784: (Continued from January 3, 1980, Examiner Hearing)

Application of Merrion & Bayless for a non-standard proration unit and an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 640-acre non-standard gas proration unit comprising the W/2 of Section 18 and the W/2 of Section 19, Township 32 North, Range 14 West, Barker Creek-Paradox Pool, to be dedicated to its Ute Well No. 7 at an unorthodox location 1685 feet from the South line and 3335 feet from the East line of said Section 19.

In the alternative, applicant seeks an order force pooling all of said Section 19 to form a standard 640-acre unit.

CASE 6791: Application of Holly Energy, Inc. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State 30 Well No. 1, a Morrow test to be drilled 660 feet from the North line and 840 feet from the East line of Section 30, Township 17 South, Range 28 East, the N/2 of said Section 30 to be dedicated to the well.

CASE 6792: Application of Florida Exploration Company for a non-standard gas proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 324.25-acre non-standard gas proration unit comprising Lots 1 and 2 and N/2 NE/4 of Section 33 and Lots 2, 3, and 4 and NW/4 NE/4 and N/2 NW/4 of Section 34, all in Township 26 South, Range 30 East, Ross Draw Area, to be dedicated to a well to be drilled at a standard location thereon.

CASE 6793: Application of Meadco Properties, Ltd. for an exception to Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the casing-cementing rules of Order No. R-111-A to permit a proposed well in Unit E of Section 4, Township 21 South, Range 29 East, to be completed by setting surface casing at 550 feet and production casing at total depth and cementing both casing strings to the surface.

CASE 6794: Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tocito Gallup and Dakota production in the wellbore of its Breech "D" Well No. 140 located in Unit A of Section 11, Township 26 North, Range 6 West.

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
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JEFFERSON PLACE
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November 29, 1979

Mr. Joe D. Ramey
Division Director
Oil Conservation Division
New Mexico Department of Energy & Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Case No. 6608: Application of Getty Oil Company for Pool Creation and Special Pool Rules, Lea County, New Mexico

Dear Mr. Ramey:

On August 28, 1979, the Division entered its order in the above-referenced matter creating temporary pool rules for the Grama Ridge-Wolfcamp Pool. This order (Order No. R-6088) provided that this matter be reopened at an examiner hearing in January 1980, at which time operators in the subject pool should be prepared to show whether the subject pool is in fact an oil reservoir or a gas reservoir.

Getty Oil Company requests that this case be heard at the examiner hearing scheduled for January 16, 1980.

Your consideration of this request is appreciated.

Very truly yours,

William F. Carr

WFC:lr

cc: Mr. Herman Terry

Exhibit #2 Ck 6607-6608

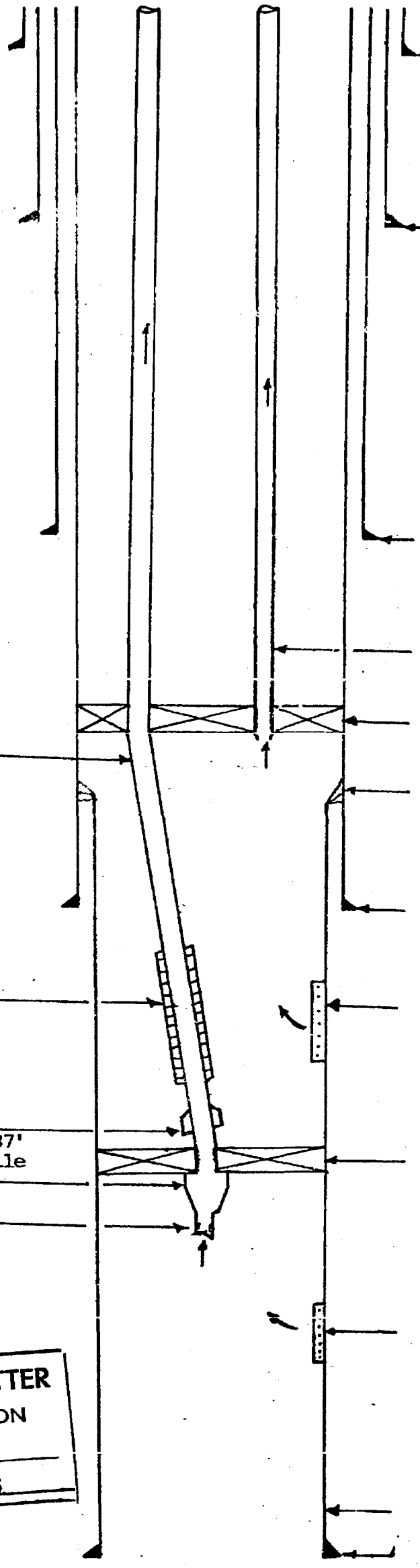
is a Well Log - in Case

File 6607

EXHIBIT

MYM

GETTY "36" STATE COM. NO. 1
MORROW-WOLFCAMP DUAL COMPLETION
LEA COUNTY, NEW MEXICO



20", 94# H-40 at 40' w/3 yds. Ready-Mix

13 3/8", 48#, H-40 at 1100'. Circulate 175 sxs to surface.

9 5/8", 36#, S-80 & K-55 at 5502'. Circulate 125 sxs cement to surface.

2 3/8", N-80 8Rd Tubing

Baker Model "AL-5" Dual Pkr. at 10,605' with 2 3/8" x 1.81" Model "F" Nipple

Liner Top at 10,815' Squeezed with 100 sxs

2 3/8", N-80 8Rd Tubing

7",26# N-80 & S-95 at 11,114'. Cement top by Worth Well Temp. Log at 3570'.

5-20' Blast joints

Wolfcamp perfs. 11,320-11,335'

3 11/16"x26x1.81' "ER" Tubing Receptacle with 1.87' BFC Model "F" Profile

3½"x6' Mill-out Extension

2 3/8"x10' Pup jt.

Baker Model "DB" Pkr. at 12,000'

Morrow perfs. 12,940-12,950'

Plug back TD 13,266'

4 1/2", 11.6#, S-95 at 13,349'. Cemented with 255 sxs

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 3
CASE NO. 6607 and 6608

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Re: CASE NO. 6608
ORDER NO. R-6088

Mr. William F. Carr
Campbell & Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico 87501

Applicant:

Getty Oil Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other

Docket No. 27-79

Dockets Nos. 29-79 and 31-79 are tentatively set for hearing on August 8 and 22, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - JULY 24, 1979

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6596: Application of Harvey E. Yates Company for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Upper Pennsylvanian gas pool to be designated as the Southeast Indian Basin-Upper Pennsylvanian Gas Pool for its Southeast Indian Basin Well No. 1 located in Unit A of Section 23, Township 22 South, Range 23 East, and special pool rules therefor including 320-acre gas well spacing.

CASE 6597: Application of Harvey E. Yates Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Southeast Indian Basin Well No. 2, an Upper Pennsylvanian well to be drilled 660 feet from the North and West lines of Section 24, Township 22 South, Range 23 East, with the N/2 or all of said Section 24 to be dedicated to the well, depending on the outcome of Case No. 6596.

****

Docket No. 28-79

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 25, 1979

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 6545: (Continued from June 27, 1979, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Corinne Grace, Travelers Indemnity Company, and all other interested parties to appear and show cause why the Kuklah Baby Well No. 1 located in Unit G of Section 24, Township 22 South, Range 26 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6598: Application of Gulf Oil Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Otero-Gallup and Basin-Dakota production in the wellbores of its Apache Federal Wells No. 8 located in Unit C of Section 8 and No. 9 located in Unit D of Section 17, both in Township 24 North, Range 5 West.

CASE 6599: Application of Gulf Oil Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Fusselman and Montoya production, North Justis Field, in the wellbore of its W. A. Ramsay Well No. 4 located in Unit M of Section 36, Township 24 South, Range 37 East.

CASE 6600: Application of Mesa Petroleum Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the E/2 of Section 10, Township 16 South, Range 27 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6601: Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp through Mississippian formations underlying the E/2 of Section 8, Township 14 South, Range 36 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6602: Application of Tenneco Oil Company for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal 33 C No. 2 Well 1010 feet from the North line and 1710 feet from the West line of Section 33, Township 17 South, Range 29 East, South Empire-Wolfcamp Pool, the E/2 NW/4 of said Section 33 to be dedicated to the well.

CASE 6603: (This case will be continued to the August 8 hearing.)

Application of Conoco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Penrose Skelly and Eumont production in the wellbore of its Hawk B-1 Well No. 12 located in Unit O of Section 8, Township 21 South, Range 37 East.

CASE 6604: Application of Cities Service Company for rescission of Division Order No. R-5921, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the rescission of Order No. R-5921 which order provided for the compulsory pooling of all of the mineral interests in the Pennsylvanian formation underlying the S/2 of Section 8, Township 23 South, Range 28 East.

CASE 6605: Application of Estoril Producing Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the W/2 of Section 15, Township 20 South, Range 34 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the North and West lines of said Section 15. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6564: (Continued and Readvertised)

Application of Herndon Oil & Gas Co. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its O. A. Woody Well No. 1 to be drilled 2310 feet from the North line and 330 feet from the West line of Section 35, Township 16 South, Range 38 East, Knowles-Devonian Pool.

CASE 6606: Application of Getty Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Yates formation in the open-hole interval from 3810 feet to 4169 feet in its State "AA" Well No. 1 located in Unit I of Section 35, Township 21 South, Range 34 East.

CASE 6607: Application of Getty Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Getty 36 State Well No. 1 located in Unit F of Section 36, Township 21 South, Range 34 East, to produce oil from the Wolfcamp formation and gas from the Morrow formation through parallel strings of tubing.

CASE 6608: Application of Getty Oil Company for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Wolfcamp oil pool for its Getty 36 State Well No. 1 located in Unit F of Section 36, Township 21 South, Range 34 East, and special rules therefor, including 160-acre oil well spacing.

CASE 6609: Application of Napeco Inc. for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Strawn oil pool for its Benson Deep Unit Well No. 1 located in Unit O of Section 33, Township 18 South, Range 30 East, and special rules therefor, including 160-acre spacing and standard well locations.

CASE 6610: Application of Koch Industries, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Rustler formation through the perforated interval from 1190 feet to 1210 feet in its Wills "A" Well No. 7 located in Unit E of Section 35, Township 26 South, Range 37 East, Rhodes Field.

CASE 6611: Application of Cabot Corp. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the disposal of produced salt water in the Devonian formation through the perforated interval from 12,156 feet to 12,574 feet in its Reed Well No. 1 located in Unit H of Section 35, Township 13 South, Range 37 East, King Field.

CASE 6487: (Continued from May 23, 1979, Examiner Hearing)

Application of El Paso Natural Gas Company for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Shell E State Com Well No. 2 located in Unit N of Section 6, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6471: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Freeman Well No. 1-A to be located in Unit C of Section 11, Township 31 North, Range 13 West, Basin-Dakota Pool, San Juan County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6472: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Jenny Well No. 1-A to be located in Unit P of Section 13, Township 2o North, Range 4 West, Basin-Dakota Pool, Rio Arriba County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6473: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its McIntyre Well No. 1-A to be located in Unit K of Section 11, Township 26 North, Range 4 West, Basin-Dakota Pool, Rio Arriba County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6474: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Williams Well No. 1-A to be located in Unit C of Section 24, Township 31 North, Range 13 West, Basin-Dakota Pool, San Juan County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6475: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Montoya Well No. 1-A to be located in Unit I of Section 35, Township 32 North, Range 13 West, Basin-Dakota Pool, San Juan County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6535: (Continued from June 13, 1979, Examiner Hearing)

Application of Torreon Oil Company for a waterflood project, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the San Luis-Mesaverde Pool by the injection of water into the Menefee formation through two wells located in Section 21, Township 18 North, Range 3 West, Sandoval County, New Mexico.

CASE 6579: (Continued from June 27, 1979, Examiner Hearing)

Application of R. N. Hillin for an unorthodox well location and approval of infill drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well spacing requirements and a finding that the drilling of a Morrow gas well at an unorthodox location 800 feet from the South line and 2000 feet from the East line of Section 34, Township 19 South, Range 28 East, is necessary to effectively and efficiently drain that portion of the E/2 of said Section 34 which cannot be so drained by the existing well.

CASE 6580: (Continued from June 27, 1979, Examiner Hearing) (This case will be continued to the August 22 hearing.)

Application of Continental Oil Company for a carbon dioxide injection project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to initiate a pilot carbon dioxide injection project in the Grayburg-San Andres formation in Units H and I of Section 20, Township 17 South, Range 32 East, Maljamar Pool, for tertiary recovery purposes.

CASE 6270: (Continued from July 11, 1979, Examiner Hearing)

In the matter of Case 6270 being reopened pursuant to the provisions of Order No. R-5771 which order created the South Peterson-Fusselman Pool, Roosevelt County, New Mexico, and provided for 80-acre spacing. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 6590: (Continued from July 11, 1979, Examiner Hearing)

Application of Grace Petroleum Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Lots 9, 10, 15, and 16 and the SE/4 of Section 6, Township 21 South, Range 32 East, to be dedicated to a well to be drilled at an unorthodox location 4650 feet from the South line and 660 feet from the East line of said Section 6. Also to be considered will be the cost of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
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MICHAEL B. CAMPBELL
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TELEPHONE (505) 988-4421

July 3, 1979

Mr. Joe D. Ramey, Division Director
Oil Conservation Division
New Mexico Department of Energy
and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

RE: Application of Getty Oil Company for Pool Creation, Special Pool Rules and Dual Completion, Lea County, New Mexico.

Dear Mr. Ramey:

Enclosed herewith, in triplicate, is the application of Getty Oil Company in the above referenced matter.

The applicant requests that this case be set for hearing at the Examiner Hearings scheduled to be held on July 25, 1979.

Your attention to this matter is appreciated.

Very truly yours,

William F. Carr

WFC/tn

Enclosure

cc: Mr. Herman Terry
Getty Oil Company
Post Office Box 730
Hobbs, New Mexico 88240

BEFORE THE
OIL CONSERVATION DIVISION
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF GETTY OIL COMPANY FOR POOL CREATION, SPECIAL POOL RULES, AND DUAL COMPLETION, LEA COUNTY, NEW MEXICO.

Case No. 6609

APPLICATION

Comes now GETTY OIL COMPANY, by their undersigned attorneys, and hereby makes application for an order designating a new pool as a result of the discovery of oil in the Wolfcamp formation in its Getty 36 State No. 1 Well located 1980 feet from the North line and 1650 feet from the West line in Unit F of Section 36, Township 21 South, Range 34 East, Lea County, New Mexico and for promulgation of special pool rules, including (1) 160-acre oil spacing or proration units in the Wolfcamp formation on a permanent basis or, in the alternative, on a temporary basis and (2) the dedication of all of the northwest quarter of said Section 36 to the Getty 36 State No. 1 Well. Applicant further seeks authorization to dually complete the subject well in the Wolfcamp and Morrow formations and in support of this application would show the commission:

1. That Getty Oil Company is the owner and operator of the Getty 36 State No. 1 Well.

2. That while drilling said well to test the Morrow formation, Applicant discovered oil in paying quantities in the Wolfcamp formation.

3. That Applicant believes that the following described lands are reasonably proven to be productive of oil in paying quantities from the Wolfcamp formation and should be included in the original definition of a new pool to be created because of said

discovery:

Township 21 South, Range 34 East, N.M.P.M.

Section 36: NW/4

4. That in order to avoid economic loss caused by the drilling of unnecessary wells, to avoid augmentation of risk arising from the drilling of an excessive number of wells and to otherwise prevent waste and protect relative rights, special pool rules and regulations providing for 160-acre spacing units in the Wolfcamp should be promulgated for the new pool.

5. That Applicant desires to complete its said well as a dual completion: to produce oil from the Wolfcamp formation from the interval between 11,320 feet and 11,335 feet, and to produce gas from the Morrow formation from the interval between 12,940 feet and 12,950 feet. The said oil to be produced through 2-3/8 inch tubing set at 10,600 feet and the gas to be produced through 2-3/8 tubing set at 12,000 feet.

6. That a Baker Model K Dual Packer has been set at 10,600 feet and a Baker Model D Packer has been set at 12,000 feet.

7. That the granting of this application will avoid waste, allow the recovery of oil and gas which might not otherwise be recovered, and will not violate correlative rights.

WHEREFORE, GETTY OIL COMPANY, requests that this application be set for hearing before a duly appointed examiner of the Oil Conservation Division on July 25, 1979, that notice be given as required by law and the rules of the Division, and that the application be approved.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

By William F. Carr
William F. Carr

BEFORE THE
OIL CONSERVATION DIVISION
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF GETTY OIL COMPANY FOR POOL CREATION, SPECIAL POOL RULES, AND DUAL COMPLETION, LEA COUNTY, NEW MEXICO.

Case No. 6608

APPLICATION

Comes now GETTY OIL COMPANY, by their undersigned attorneys, and hereby makes application for an order designating a new pool as a result of the discovery of oil in the Wolfcamp formation in its Getty 36 State No. 1 Well located 1980 feet from the North line and 1650 feet from the West line in Unit F of Section 36, Township 21 South, Range 34 East, Lea County, New Mexico and for promulgation of special pool rules, including (1) 160-acre oil spacing or proration units in the Wolfcamp formation on a permanent basis or, in the alternative, on a temporary basis and (2) the dedication of all of the northwest quarter of said Section 36 to the Getty 36 State No. 1 Well. Applicant further seeks authorization to dually complete the subject well in the Wolfcamp and Morrow formations and in support of this application would show the commission:

1. That Getty Oil Company is the owner and operator of the Getty 36 State No. 1 Well.

2. That while drilling said well to test the Morrow formation, Applicant discovered oil in paying quantities in the Wolfcamp formation.

3. That Applicant believes that the following described lands are reasonably proven to be productive of oil in paying quantities from the Wolfcamp formation and should be included in the original definition of a new pool to be created because of said

discovery:

Township 21 South, Range 34 East, N.M.P.M.

Section 36: NW/4

4. That in order to avoid economic loss caused by the drilling of unnecessary wells, to avoid augmentation of risk arising from the drilling of an excessive number of wells and to otherwise prevent waste and protect relative rights, special pool rules and regulations providing for 160-acre spacing units in the Wolfcamp should be promulgated for the new pool.

5. That Applicant desires to complete its said well as a dual completion: to produce oil from the Wolfcamp formation from the interval between 11,320 feet and 11,335 feet, and to produce gas from the Morrow formation from the interval between 12,940 feet and 12,950 feet. The said oil to be produced through 2-3/8 inch tubing set at 10,600 feet and the gas to be produced through 2-3/8 tubing set at 12,000 feet.

6. That a Baker Model K Dual Packer has been set at 10,600 feet and a Baker Model D Packer has been set at 12,000 feet.

7. That the granting of this application will avoid waste, allow the recovery of oil and gas which might not otherwise be recovered, and will not violate correlative rights.

WHEREFORE, GETTY OIL COMPANY, requests that this application be set for hearing before a duly appointed examiner of the Oil Conservation Division on July 25, 1979, that notice be given as required by law and the rules of the Division, and that the application be approved.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

By s/ William F. Carr
William F. Carr

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6608
Order No. R-6088

APPLICATION OF GETTY OIL COMPANY FOR POOL CREATION AND SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 25, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this ___ day of August, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Getty Oil Company, seeks the creation of a new oil pool for Wolfcamp production in Lea County, New Mexico.

(3) That the applicant also seeks the promulgation of special rules for said pool, including a provision for 160-acre proration units.

(4) That the evidence presently available indicates that applicant's Getty 36 State Well No. 1, located in Unit F of Section 36, Township 21 South, Range 34 East, NMPM, Lea County, New Mexico, has discovered a separate common source of supply ~~more properly defined as the Bone Spring formation~~ which should be designated the Grama Ridge-Wolfcamp Pool; that the vertical limits of the pool should be the Wolfcamp formation, and that the horizontal limits of said pool should be as follows:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 36: NW/4

(5) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 160-acre spacing units should be promulgated for the Grama Ridge-Wolfcamp Pool.

(6) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(7) That the temporary special rules and regulations should provide for a depth bracket allowable of 605 barrels.

(8) That the temporary special rules and regulations should be established for a 6-month period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(9) That this case should be reopened at an examiner hearing in January 1980, at which time the operators in the subject pool should be prepared to appear and show whether this pool should be classified as an oil reservoir or a gas reservoir, and if it is an oil reservoir, ~~it~~ should not be developed on 40-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That effective August 1, 1979, a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production, is hereby created and designated the Grama Ridge-Wolfcamp Pool, with vertical limits comprising the Wolfcamp formation and horizontal limits comprising the following-described area:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 36: SW/4

(2) That temporary Special Rules and Regulations for the Grama Ridge-Wolfcamp Pool, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE GRAMA RIDGE-WOLFCAMP POOL

RULE 1. Each well completed or recompleted in the Grama Ridge-Wolfcamp Pool or in the Wolfcamp formation within one mile of the Grama Ridge-Wolfcamp Pool, and not nearer to

nor within the limits of another designated Wolfcamp pool, shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Grama Ridge-Wolfcamp Pool shall be located on a unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Lands Survey.

RULE 3. Each well completed or recompleted in said pool shall not be drilled closer than 660 feet to any quarter section line nor closer than 330 feet to any quarter-quarter section line.

RULE 4. For good cause shown, the Division Director may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising less than 160 acres. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Division Director may approve the application if, after a period of 30 days, no offset operator has entered an objection to the formation of such non-standard unit.

The allowable assigned to any such non-standard unit shall bear the same ratio to a standard allowable in the Grama Ridge-Wolfcamp Pool as the acreage in such non-standard unit bears to 160 acres.

RULE 5. A standard proration unit (158 through 162 acres) in the Grama Ridge-Wolfcamp Pool shall be assigned a depth bracket allowable of 605 barrels, subject to the market demand percentage factor, and in the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit in any proportion.

IT IS FURTHER ORDERED:

(3) That the locations of all wells presently drilling to or completed in the Grama Ridge-Wolfcamp Pool or in the ~~Bone Spring~~ Wolfcamp formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs district office of the Division in writing of the name and location of the well on or before September 1979.

(4) That, pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, contained in Chapter 271, Laws of 1969, existing wells in the Grama Ridge-Wolfcamp Pool shall have dedicated

thereto 160 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 160 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the Grama Ridge-Wolfcamp Pool or in the Wolfcamp formation within one mile thereof shall receive no more than one-quarter of a standard allowable for the pool.

(5) That this case shall be reopened at an examiner hearing in January 1980, at which time the operators in the subject pool should be prepared to appear and show cause why the Grama Ridge-Wolfcamp Pool should not be developed on 40-acre spacing units. (whether the subject pool is in fact an oil reservoir or a gas reservoir, and if it is an oil reservoir, to show)

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L

fd/

DRAFT

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

CASE NO. 6608

Order No. R- 6088-A

APPLICATION OF GETTY OIL COMPANY

FOR POOL CREATION AND SPECIAL POOL RULES,

LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE DIVISION:

It appearing to the Division that Order No. R- 6088, dated August 28, 19 79, does not correctly state the intended order of the Division,

IT IS THEREFORE ORDERED:

(1) That Paragraph (1) on Page 2 of Order No. R-6088, Case No. 6608, be and the same is hereby corrected to read in its entirety as follows:

"(1) That effective September 1, 1979, a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production, is hereby created and designated the Grama Ridge-Wolfcamp Pool, with vertical limits comprising the Wolfcamp formation and horizontal limits comprising the following-described area:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 36: SW/4"

(2) That this order shall be effective nunc pro tunc as of August 28, 1979.

DONE at Santa Fe, New Mexico, on this _____ day of ~~January~~ February, 1980.

Note: Order was entered Aug 28, 79 and stated that the effective date was August 1, 79 should have been Sept 1, 79

ROUGH

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6608

Order No. ~~R-6275~~ 6088-B

IN THE MATTER OF CASE 6608 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-6088, WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE GRAMA RIDGE-WOLFCAMP POOL, LEA COUNTY, NEW MEXICO, INCLUDING A PROVISION FOR 160-ACRE PRORATION UNITS.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 16 19 80, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of _____, 19 80, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-6088, dated August 28, 1979, the Division created, defined, and classified the Grama Ridge Wolfcamp Oil Pool, Lea County, New Mexico, and temporary special

rules and regulations were promulgated therefor, including a provision for 160-acre spacing units.

(3) That pursuant to the provisions of Order No. R-6088, this case was reopened to allow the operators in the subject pool to appear and show whether the Grama Ridge-Wolfcamp Pool is in fact an oil reservoir or a gas reservoir, and if it is an oil reservoir, to show cause why said pool should not be developed on less than 160-acre spacing units.

(4) That the evidence establishes that the Grama Ridge-Wolfcamp Pool reservoir is not an oil reservoir, nor is it a gas reservoir in the usual sense, but that it is in fact a retrograde condensate gas reservoir.

(5) That the Grama Ridge-Wolfcamp Pool should be reclassified in accordance with Finding No. (4) above, and it should be redesignated as the Grama Ridge-Wolfcamp Gas Pool.

(6) That the Special Rules and Regulations promulgated by Order No. R-6088 should be rescinded, and new special Rules and Regulations pertinent to a retrograde gas condensate reservoir promulgated.

(7) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Grama Ridge-Wolfcamp Gas Pool should be subject to the well location and acreage dedication requirements of Rule 104 C II of the Division Rules and Regulations.

(8) That insufficient evidence was available at the January 16, 1980, hearing of this case to determine the proper rate of withdrawals on a permanent basis for the Grama Ridge-Wolfcamp Gas Pool, and therefore another hearing should

be called in May, 1980, at which time all interested parties should appear and present evidence as to the maximum efficient rate of withdrawals which should be permitted in this retrograde condensate gas reservoir.

(9) That pending an order issuing from the aforesaid May hearing on this matter, withdrawals from wells completed in the subject reservoir should be limited to some reasonable amount to avert waste and prevent reservoir damage.

(10) That pending such order, a reasonable maximum rate of withdrawal from each well in the Grama Ridge-Wolfcamp Gas Pool is 1500 MCF of gas per day at the surface.

(11) That an order based on the above findings is in the interest of conservation, will prevent waste, will not impair but will protect correlative rights, and should be approved.

IT IS THEREFORE ORDERED:

(1) That the Grama Ridge-Wolfcamp Pool as heretofore classified and defined is hereby reclassified as a retrograde gas condensate reservoir and redesignated as the Grama Ridge-Wolfcamp Gas Pool, with vertical limits comprising the Wolfcamp formation and horizontal limits comprising the following described area:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 36: SW/4

(2) That Order No. R-6088 which promulgated Special Rules and Regulations for said Grama Ridge Wolfcamp Pool is hereby rescinded and new Special Rules and Regulations for the Grama Ridge Wolfcamp Gas Pool, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR

THE GRAMA RIDGE-WOLFCAMP GAS POOL

RULE 1. Each well completed or recompleted in the Grama Ridge-Wolfcamp Gas Pool or in the Wolfcamp formation within one mile of the Grama Ridge-Wolfcamp Gas Pool, and not nearer

to nor within the limits of another designated Wolfcamp pool, shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Grama Ridge-Wolfcamp Gas Pool shall be located on a standard unit containing 320 acres, more or less, comprising any two contiguous ~~quarter~~ quarter sections of a single governmental section, being a legal subdivision of the United States Public Land Surveys. Exceptions to this rule are subject to the provisions of Rule 104 D II of the Division Rules and Regulations.

RULE 3. Each well shall be located no nearer than 660 feet to the nearest side boundary of the tract nor nearer than 1980 feet to the nearest end boundary of the tract. Exceptions to this rule are subject to the provisions of Rule 104 F of the Division Rules and Regulations.

RULE 4. A gas well on a standard unit in the Grama Ridge-Wolfcamp Gas Pool shall be permitted to produce no more than 1,500 MCF of gas per day at standard surface conditions during the effective period of these pool rules. This shall be known as the daily allowable.

RULE 5. The operator of each newly completed well shall cause a gas-liquid ratio test to be taken on the well upon recovery of all load oil from the well. Any well which is shut in shall be exempted from the gas-liquid ratio test requirement so long as it remains shut in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Rule 6.

RULE 6. Gas-liquid ratio tests shall be taken on all wells during the months of April and October of each year. The initial gas-liquid ratio test shall suffice as the first

semi-annual test. Tests shall be 24-hour tests, being the final 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Division Form C-116 on or before the 10th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio tests, each operator shall file with the appropriate district office of the Division a test schedule for its wells specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators.

Special tests shall also be taken at the request of the Division Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with the procedures outlined hereinabove, including notification to the Division and offset operators.

RULE 7. An initial shut-in pressure test shall be taken on each gas well and shall be reported to the Division on Form C-125.

RULE 8. Any well completed after the effective date of these rules shall receive an allowable only upon receipt by the appropriate Division district office of Division Forms C-104 and C-116, properly executed. The District Supervisor of the Division's district office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the amounts set forth in Rule 4 of these rules.

RULE 9. The ~~associated~~ Arena Ridge-Wolfcamp Gas Pool gas proration period shall be the proration month which shall begin at 7 a.m. on the first day of the month and shall end at 7 a.m. on the first day of the next succeeding month.

RULE 10. (a) Any ~~associated~~ gas well which has an underproduced status at the end of any ~~associated~~ gas proration period, shall carry such underproduction into subsequent periods.

(b) Underproduction in excess of three times the current monthly allowable shall not be carried forward but shall be cancelled. For the purposes of these rules, the monthly allowable shall be ~~the full monthly allowable which would be assigned an associated gas well with the same acreage dedication in the~~ the daily allowable times the number of days in the month.

(c) Overproduction during any month shall be applied to a well's cumulative underproduction, if any, calculated in accordance with Paragraphs (a) and (b) above.

RULE 11. Any ~~associated~~ gas well which has an overproduced status at the end of any ~~associated~~ gas proration period shall carry such overproduction into subsequent periods. If at any time a well is overproduced an amount exceeding three times its current monthly allowable, it shall be shut in during that month and each succeeding month until the well is overproduced less than three times its current monthly allowable.

RULE 12. The allowable assigned to a well during any one month ~~of an associated gas proration period~~ in excess of the production for the same month shall be applied against the overproduction carried into such period in determining the amount of overproduction, if any, which has not been compensated for.

RULE 13. The Division may allow overproduction to be compensated for at a lesser rate than would be the case if the well were completely shut in upon a showing after notice and hearing that complete shut in of the well would result in material damage to the well or reservoir.

~~E. REPORTING OF PRODUCTION~~

RULE 14. The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be reported to the Division on Form C-115 so as to reach the Division on or before the 24th day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the produced gas.

RULE 15. Each purchaser or taker of gas shall submit a report to the Division so as to reach the Division on or before the 15th day of the month next succeeding the month in which the gas was purchased or taken. Such report shall be filed on Form C-111 with the wells being listed in the same order as they are listed on the appropriate proration schedule.

RULE 16. Failure to comply with any provision of these rules shall result in the immediate cancellation of allowable assigned to the affected well. No further allowable shall be assigned until all rules and regulations have been complied with. The Division Director shall notify the operator of the well and purchaser in writing of the date of allowable cancellation and the reason therefor.

RULE 17. All transporters or users of gas shall file gas well connection notices with the Division as soon as possible after the date of connection.

IT IS FURTHER ORDERED:

(1) That the cumulative casinghead gas over/under production status for each well in the Grama Ridge Wolfcamp Pool immediately prior to the effective date of this order shall be the beginning status for wells in the Grama Ridge-Wolfcamp Gas Pool at 7:00 o'clock a.m. on the effective date of this order.

(2) That the effective date of this order shall be March 1, 1980.

(3) That, pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, existing wells in the Grama Ridge Wolfcamp Gas Pool shall have dedicated thereto 320 acres, in accordance with the foregoing pool rules or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 320 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable.

(4) That this cause shall be reopened at an examiner hearing during May, 1980, to permit the operators in said pools to appear and present evidence to establish the proper rates of production for wells in the subject pool.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONE 505 393-5396

HOBBS, NEW MEXICO 88240

COMPANY: Getty Oil Company

WELL: Getty 36 State Com, No. 1 FIELD: Undesignated Wolfcamp

CHRONOLOGICAL PRESSURE DATA

DATE	STATUS OF WELL	TIME	ELASPED TIME HRS.	MIN.	SURFACE PRESSURE TBG	CSG	BHP @ (10450'
1979							
7/4	Shut in 1.0 hr. Run Tandem Bombs & Hung Bombs off @ 10450'	11:30 AM	1	00	4865	PKR	7051
	Shut in	12:30	2	00	–	–	7051
	"	1:30	3	00	–	–	7057
	"	2:30	4	00	–	–	7057
	"	3:30	5	00	–	–	7057
	"	4:30	6	00	–	–	7057
	"	5:30	7	00	–	–	7057
	"	6:30	8	00	–	–	7057
	Attempted to PULL BOMBS	7:30	9	00	–	–	7057

very little wtr
Morrow small amt WC TSTM.
On test flared
4,232,000 ft³/Day
49.4
Clear
685 bopd
GOR approx 6000/1

Not convinced they have an oil reservoir seek 6 mo temp pmsn only. reopen case in Dec.

Morrow
1,662,000 cuft/day
36 bbl cond/day

160 Dedicated
660 quarter sec
330 quarter quarter

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Getty EXHIBIT NO. 4
CASE NO. 6607 and 6608