Case No.

557

Application, Transcript,
Small Exhibits, Etc.

DASHKO BUILDING

TELEPHONE 3-2195

JOHN R. BRAND
DISTRICT JUDGE
FIFTH JUDICIAL DISTRICT
STATE OF NEW MEXICO
P. O. BOX 1176
HOBBS, NEW MEXICO

October 7, 1954

Mr. W. F. Kitts
New Mexico Oil Conservation Comm.
P. O. Box 871
Santa Fe, New Mexico

Re: Phillips Petroleum Co.
vs.
Oil Conservation Comm.
No. 11422, Lea County

Dear Mr. Kitts:

The above matter having been dismissed, I am herewith returning the Transcript of Testimony therein which was loaned to me.

Yours very truly,

JOHN R. BRAND
District Judge

By: [signature]
Court Reporter

Encl.

VOLUME II

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B. Exhibits at October 15, 1953 re-hearing

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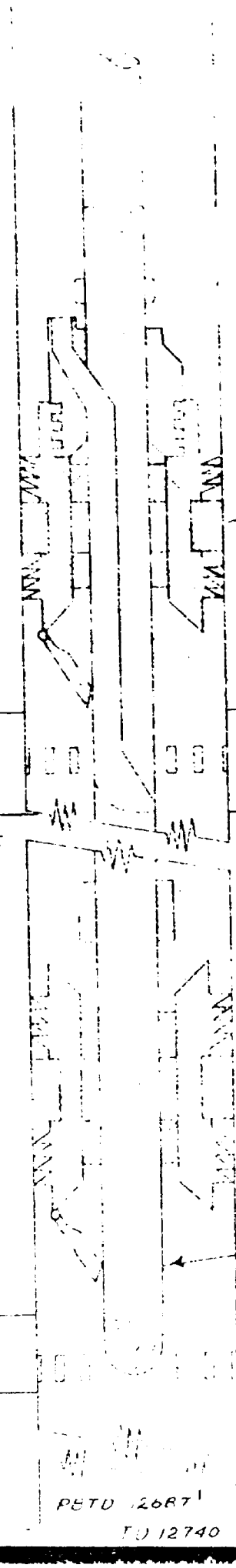
P.P.Co. Ex. 2
July 16, 1953

EXHIBIT 2

[illegible] PRODUCTION COMPANY
[illegible] NO. 1
NW NW SEC 35 - 14S - 32E
[illegible], NEW MEXICO
DIAGRAMMATIC SKETCH SHOWING
PROPOSED DUAL COMPLETION



PRODUCTION PACKER SET AT APPROXIMATELY 9150'

UPPER ZONE

WOLFCAMP

TOP 9250'

PERFORATE

4TH	9260'	9360'
3RD	[illegible]	[illegible]
2ND	9480'	9520'
1ST	9550'	9592'

THIS ZONE TO BE PRODUCED THRU TUBING

NOTE IT IS PROPOSED TO PERFORATE WOLFCAMP IN ORDER SHOWN. IF WATER IS ENCOUNTERED IN A ZONE THAT ZONE TO BE SQUEEZED OFF.

PRODUCTION PACKER SET AT APPROXIMATELY 12215'

LOWER ZONE

DEVONIAN

TOP 12315'

PERFORATE

12456' - 12550'
12580' - 12680'

2" TUBING LANDED AT 12552'

THIS ZONE TO BE PRODUCED THRU CASING

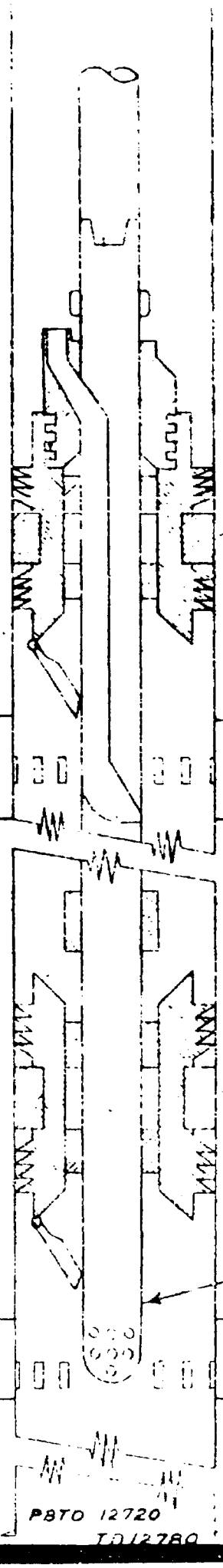
5 1/2" CSG. SET AT 12732'

PBTD 12687'
TD 12740

EXHIBIT 3

PHILLIPS PETROLEUM COMPANY
CENTON NO. 12
SW, NW, SEC. 11-15S-37E
LEA COUNTY, NEW MEXICO
DIAGRAMMATIC SKETCH SHOWING
PROPOSED DUAL COMPLETION

F.P.Co. Ex. 3
July 16, 1953



PRODUCTION PACKER
SET AT APPROXIMATELY
9120'

UPPER ZONE

WOLFCAMP

TOP 9220'

PERFORATE
4TH 9230' - 9320'
3RD 9350' - 9460'
2ND 9480' - 9500'
1ST 9540' - 9590'

THIS ZONE TO BE PRODUCED
THRU TUBING

NOTE IT IS PROPOSED TO PERFORATE WOLFCAMP IN ORDER SHOWN. IF WATER IS ENCOUNTERED IN A ZONE THAT ZONE TO BE SQUEEZED OFF.

PRODUCTION PACKER
SET AT APPROXIMATELY
11980'

LOWER ZONE

DEVONIAN

TOP 12060'

2" TUBING LANDED AT 12702'

PERFORATE
12600' - 12650'
12650' - 12700'

THIS ZONE TO BE PRODUCED
THRU CASING

5½" CSG SET AT 12773'

PBTD 12720'
TD 12780'

PHILLIPS PETROLEUM COMPANY
FORT NO. 1
NE. NE SEC 34 - 14S - 37E
LEA COUNTY, NEW MEXICO
DIAGRAMMATIC SKETCH SHOWING
PROPOSED DUAL COMPLETION

EXHIBIT 4

P.P.Co. Ex. 4
July 16, 1953

PRODUCTION PACKER
SET AT APPROXIMATELY
9250'

UPPER ZONE

WOLFCAMP

TOP AT 9350'
PERFORATE
4TH - 9360' - 9460'
3RD - 9500' - 9550'
2ND - 9580' - 9610'
1ST - 9645' - 9680'

THIS ZONE TO BE PRODUCED
THRU TUBING

NOTE IT IS PROPOSED TO PERFORATE THE WOLFCAMP IN THE ORDER SHOWN. IF WATER IS ENCOUNTERED ZONE TO BE SQUEEZED OFF.

PRODUCTION PACKER
SET AT APPROXIMATELY
12463'

LOWER ZONE

2" TUBING LANDED AT 12648'

DEVONIAN
TOP AT 12553'

PERFORATE
12504' - 12530'
12650' - 12710'

THIS ZONE TO BE PRODUCED
THRU CASING

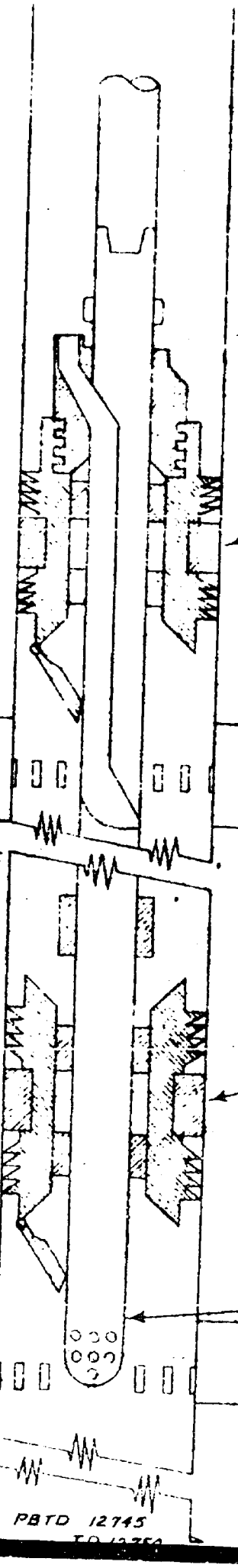
5½" OD SET 12702'

PBTD - 12724'
TD - 12804'

P.P.Co. Ex. 5
July 16, 1953

EXHIBIT 5

PHILLIPS PETROLEUM COMPANY
DENTON NO. 13
NW, NW, SECTION 11-13S-37E
LEA COUNTY, NEW MEXICO
DIAGRAMMATIC SKETCH SHOWING
PROPOSED DUAL COMPLETION.



PRODUCTION PACKER
SET AT APPROXIMATELY
9043'

THIS ZONE TO BE PRODUCED
THRU TUBING

UPPER ZONE
WOLFCAMP

TOP 9143'

PERFORATE

4TH	9150' - 9260'
3RD	9280' - 9430'
2ND	9460' - 9500'
1ST	9530' - 9580'

NOTE IT IS PROPOSED TO PERFORATE WOLFCAMP IN ORDER SHOWN. IF WATER IS ENCOUNTERED IN A ZONE THAT ZONE TO BE SQUEEZED OFF.

PRODUCTION PACKER
SET AT APPROXIMATELY
11682'

LOWER ZONE
DEVONIAN

TOP 11782'

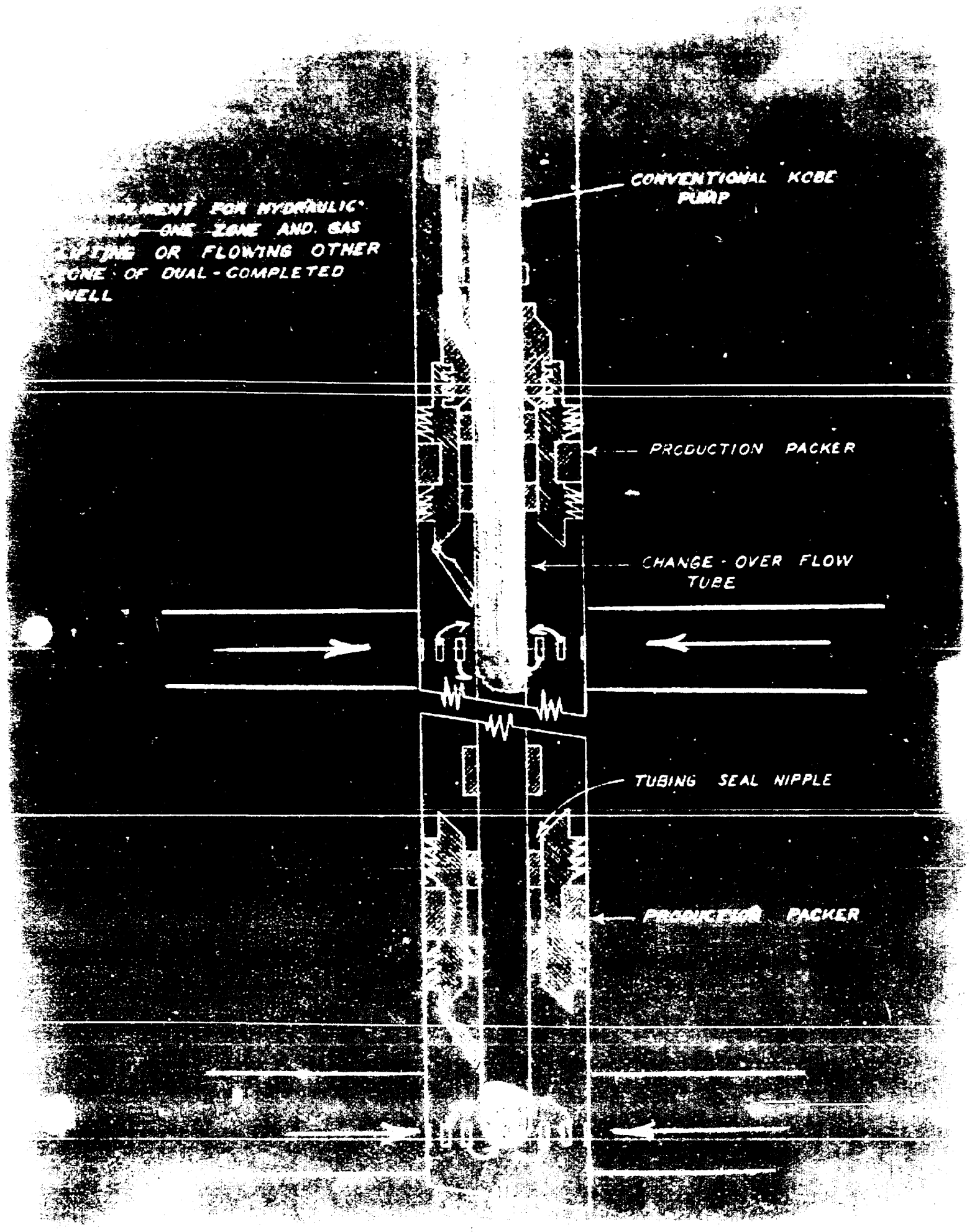
2" TUBING LANDED AT 12715'

PERFORATE
12580' - 12670'
12700' - 12730'

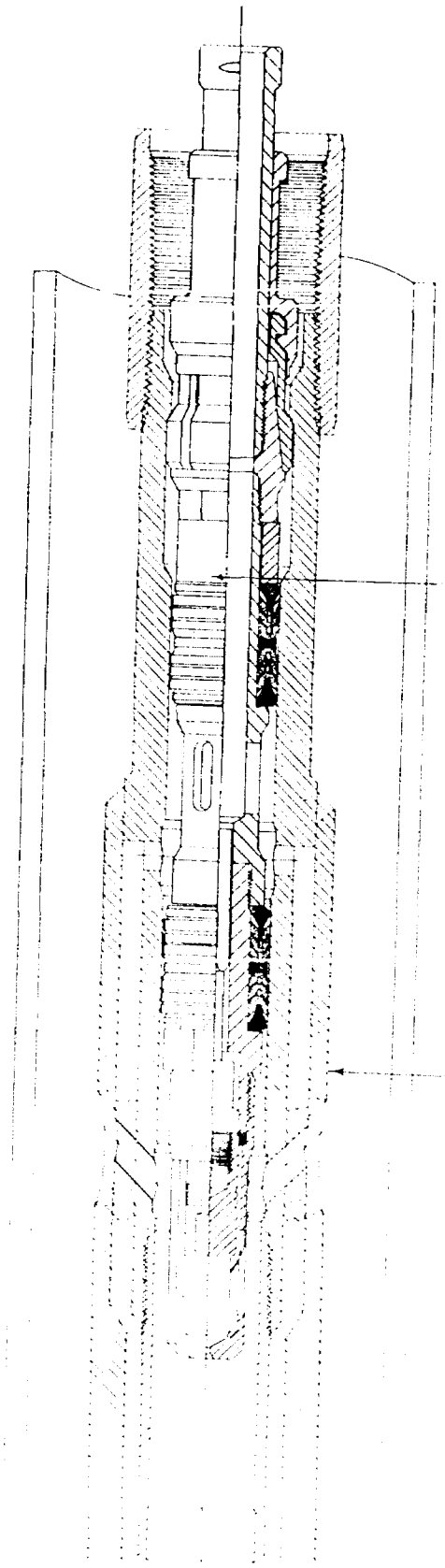
THIS ZONE TO BE PRODUCED
THRU CASING

5½" .C36 SET AT 12746'

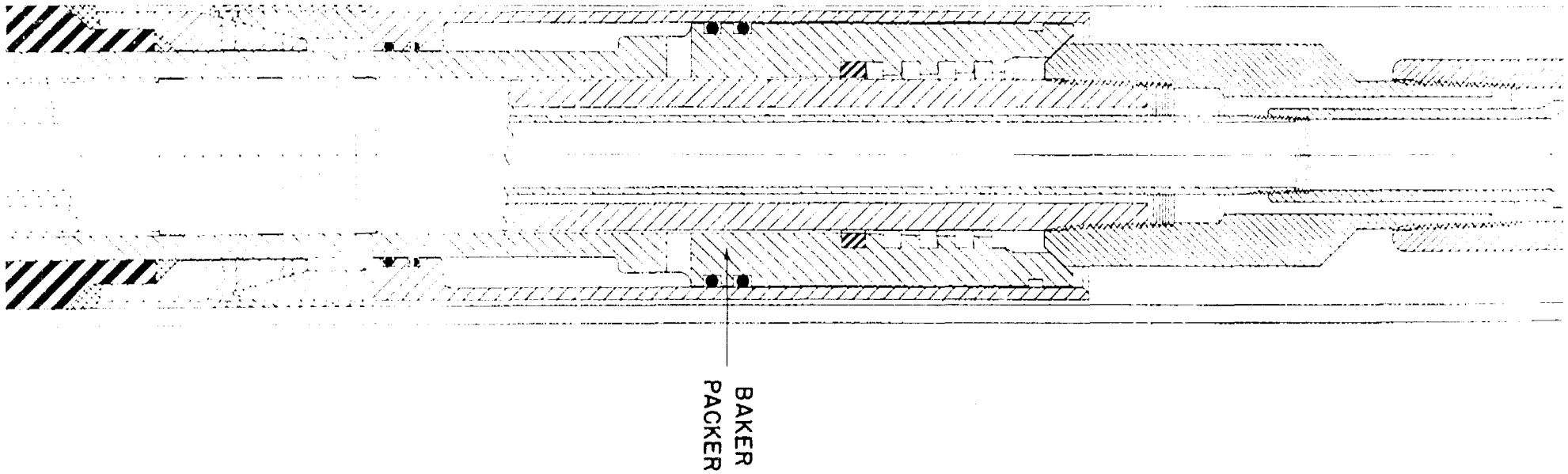
PBTD 12745


...MENT FOR HYDRAULIC
...ONE ZONE AND GAS
...OR FLOWING OTHER
...ONE OF DUAL-COMPLETED
...WELL
CONVENTIONAL KOBE PUMP
PRODUCTION PACKER
CHANGE-OVER FLOW TUBE
TUBING SEAL NIPPLE
PRODUCTION PACKER

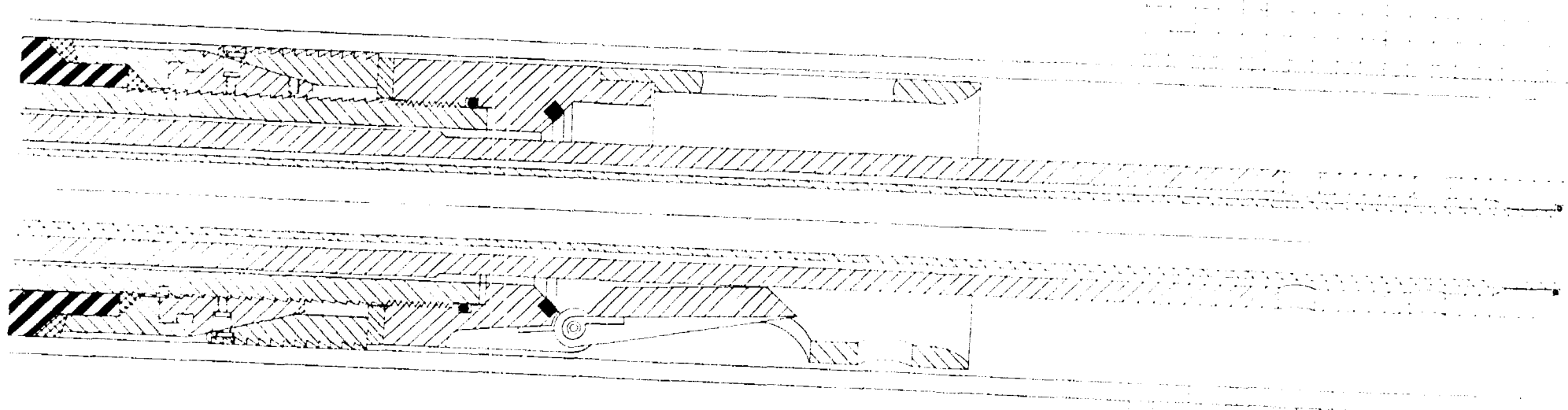
OTIS
TYPE H CROSSOVER ASSEMBLY
WITH BAKER PACKER

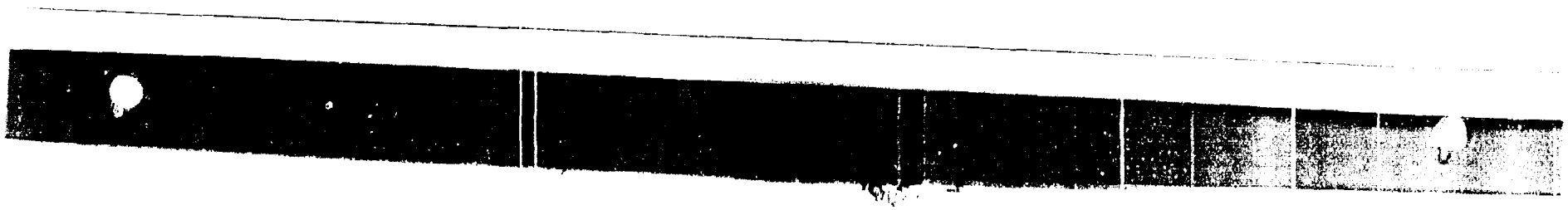


P.P.Co. Ex. 7
July 16, 1953


BAKER
PACKER

P.P.Co. Ex. 7
July 16, 1953





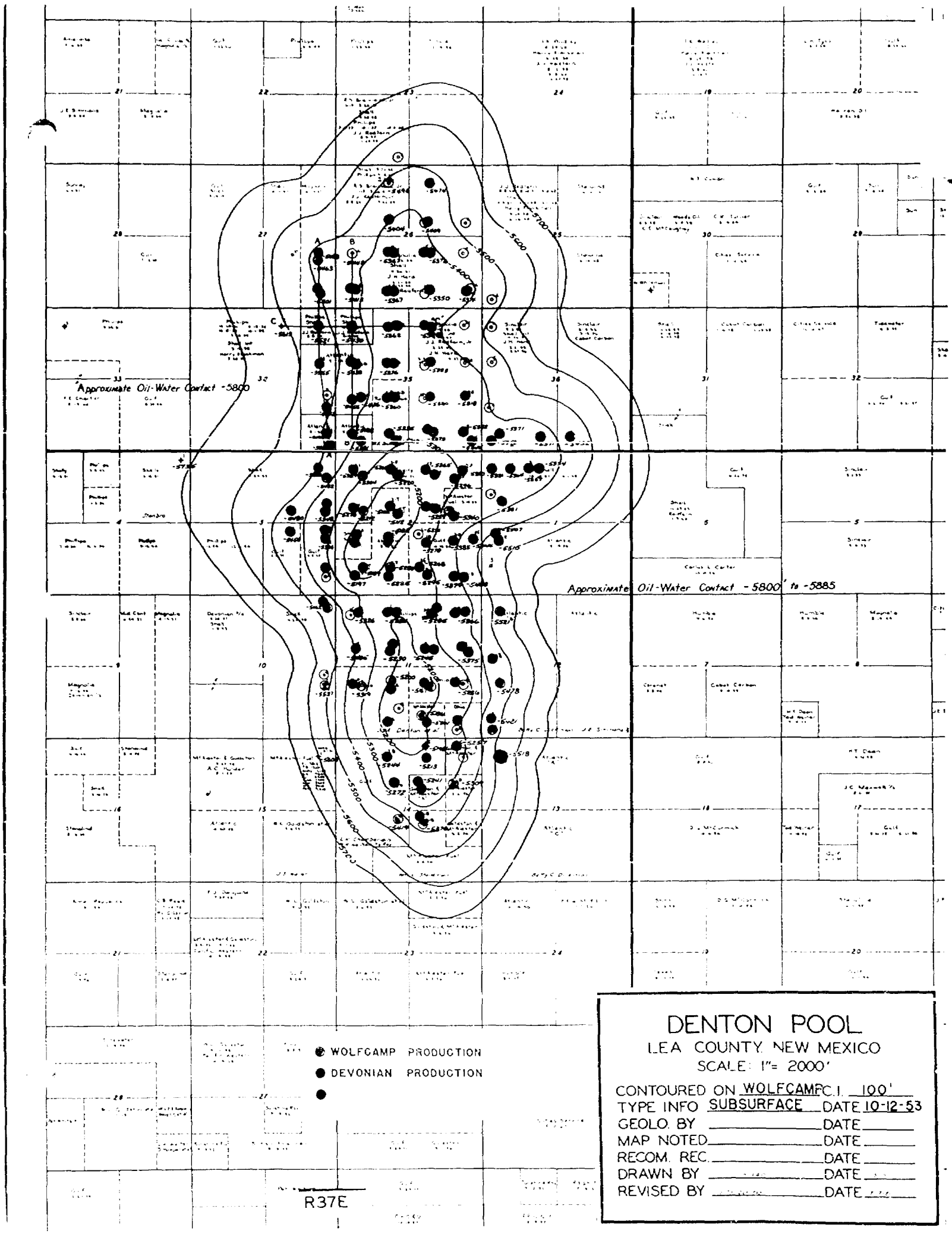
OTIS PRESSURE CONTROL, INC.

DALLAS, TEXAS.

5-24-51 SJEM

84A08

P.P.Co. Ex. 1
Oct. 15, 1953



DENTON POOL

LEA COUNTY, NEW MEXICO

SCALE: 1"= 2000'

CONTOURED ON WOLFCAMP C.I. 100'
TYPE INFO SUBSURFACE DATE 10-12-53
GEOLO. BY _____ DATE _____
MAP NOTED _____ DATE _____
RECOM. REC. _____ DATE _____
DRAWN BY _____ DATE _____
REVISED BY _____ DATE _____

DUALLY COMPLETED OIL WELLS
PHILLIPS OPERATED
as of July 1, 1953

Pool	Lease	Well No.	Lower Zone Name	Lower Zone Depth Perf.	Upper Zone Name	Upper Zone Depth Perf.	Date of Dual Comp.
Andector	McEntire	3	Waddell	7835-7910'	McKee	7635-7725'	May '42
Goldsmith	Mysewander	5	Clearfork	6170-6200'	Goldsmith 5600'	5450-5850'	Aug. '52
Goldsmith	Mysewander	6	Clearfork	6190-6275'	Goldsmith 5600'	5518-5820'	Oct. '52
Goldsmith	Schar	10	Clearfork	6115-6280'	Goldsmith 5600'	5470-5695'	Oct. '52
Goldsmith	Schar	11	Clearfork	6192-6240'	Goldsmith 5600'	5418-5674'	Sept. '52
Goldsmith	Schar	12	Clearfork	6166-6260'	Goldsmith 5600'	5430-5850'	July '52
Goldsmith	Schar "A"	11	Clearfork	6190-6275'	Goldsmith 5600'	5470-5565'	Oct. '52
N. E. Andrews	Tex.Univ."CC"	2	Ellenburger	13825-T. D.	Devonian	12530-12590	Apr. '43
Embar	Univ.Andrews	44	Ellenburger	7690-7900'	Permian	6185-6249'	Sept. '43
Embar	Univ.Andrews	58	Ellenburger	7800-7840'	Permian	6200-6250'	Apr. '44
TXL	Alma	5	Ellenburger	9640-9680'	Silurian	8282-8312'	Oct. '52
Wheeler	Cushing	1	Ellenburger	10530-10560'	Devonian	8485-8600'	July '50
Penwell	Millard "B"	1	Ellenburger	8600-8677	Waddell	8373-8405'	Oct. '52
Penwell	Millard "B"	1	Ellenburger	8655-T.D.	Fusselman	7415-7490'	July '53
TXL	Slat	1	Ellenburger	9610-5700'	Silurian	8345-8415'	May '52
TXL	Slat	2	Ellenburger	9665-9695'	Silurian	8350-8420'	May '52
TXL	TXL "A"	1	Ellenburger	9670-9720'	Silurian	8420-8490'	May '52
TXL	TXL "A"	2	Ellenburger	9690-9720'	Silurian	8360-8410'	Oct. '52
Wheeler	TXL "G"	1	Ellenburger	10575-10600	Devonian	8460-8520'	Sept. '46
Wheeler	TXL "W"	1	Ellenburger	10572-10622'	Devonian	8407-8580'	Sept. '47
E. White Point	Call	2	1st Sinton	5785-5815'	E. White Point	5590-5630'	Apr. '53
E. White Point	Call	3	1st Sinton	5822-5826'	E. White Point	5590-5600'	May '53
R. Wingwood	Grimsley	2	5th Conglomerate	5846-5852	2nd Conglomerate	5658-5672'	May '53
Frankirk	Stonewall	3	Ellenburger	6811-	Canyon	4528-4549'	Apr. '52
Mackey	Watson "A"	1	5100' Strawn	5072-5100'	4400' Strawn	4471-4478'	June '53
N. Lindsay Deese	Alice	1	5th Deese	8400-8440'	Hart	8175-8220'	Dec. '51
Golden Trend	Arneson	1	Springer	9676-9758'	Hart	8650-8738'	Apr. '53
Golden Trend	Audy "A"	1	Springer	9612-9658'	Hart	8636-8710'	July '52
Golden Trend	Audy "B"	1	Springer	9636-9775'	Hart	8680-8738'	Oct. '52
Golden Trend	Barb	1	Springer	9363-9429'	Hart	8590-8626'	May '52
Golden Trend	Basal	1	Hart	7749-7845'	Gibson	7578-7595'	Oct. '49
Golden Trend	Basal	2	Hart	7636-7689'	Gibson	7468-7495'	Dec. '49
Golden Trend	Basal	3	Hart	7621-7632'	Gibson	7432-7473'	Feb. '50
Golden Trend	Baxter	1	Hart	6939-6952'	Gibson	6776-6866'	Sept. '52
Golden Trend	Barnham	1	Hart	7512-7520'	Gibson	7361-7383'	July '52
Golden Trend	Cecalia	1	Hart	7790-7814'	Gibson	7598-7625'	Nov. '52

P.P.Co. Ex. 5
Oct. 15, 1953

Pool	Lease	Well No.	Lower Zone Name	Lower Zone Depth Perf.	Upper Zone Name	Upper Zone Depth Perf.	Date of Dual Comp.
Golden Trend	Cham-Larnie	1	Hart	7927-7954'	Gibson	7706-7725'	Jan. '52
N. W. Lindsay	Cicero	1	1st and 2d Bromide	10620-10854'	Chimney Hill	9718-9761'	Oct. '52
Golden Trend	Clark "A"	1	Hart	6908-6878'	Gibson	6742-6762'	Dec. '52
West Doyle	Craven	1	Hefner	6202-6250'	Culberson - Gas	5412-5429'	Oct. '43
West Doyle	Culberson	3	Doyle	6122-6156'	Culberson - Gas	5442-5545'	July '45
Golden Trend	Curtis	3	Hart	6895-6916'	Gibson	6794-6848'	Aug. '50
Golden Trend	Denson	1	Springer	9487-9557'	Hart	8586-8632'	Mar. '52
Golden Trend	Denson	2	Springer	9512-9580'	Hart	8612-8658'	Jan. '53
Golden Trend	Denson	3	Springer	9319-9370'	Hart	8540-8604'	Mar. '53
Golden Trend	Emma	1	Hart	6980-7003'	Gibson	6818-6903'	May '52
Golden Trend	Forkner	1	Hart	7596-7708'	Gibson	7453-7464'	Aug. '51
Golden Trend	Grant	1	Hart	7053-7070'	Gibson	6898-6916'	July '52
Golden Trend	Harr	1	Hart	7428-7497'	Gibson	7278-7341'	Mar. '51
Golden Trend	Hinkle	1	Hart	7564-7604'	Gibson	7386-7408'	Dec. '52
Golden Trend	Manda	1	Hart	7110-7127'	Gibson	6968-7011'	Mar. '52
Golden Trend	Manda	2	Hart	7195-7203'	Gibson	7044-7061'	Nov. '52
N. W. Lindsay	McDaniel	1	Bromide	10765-10866'	Chimney Hill	9780-9825'	Oct. '51
Golden Trend	Norma	1	Hart	8536-8593'	Gibson	9232-9093'	Aug. '52
Golden Trend	Potts "A"	1	Hart	7166-7193'	Gibson	6999-7053'	July '52
Golden Trend	Russell	1	Hart	7182-7206'	Gibson	7098-7113'	May '51
Golden Trend	Sam	1	Hart	7527-7570'	Gibson	7422-7438'	Sept. '52
Golden Trend	Saylors	1	Hart	7514-7538'	Gibson	7365-7430'	Feb. '52
Golden Trend	Tecumseh	1	Hart	7448-7481'	Gibson	7353-7323'	July '51
Golden Trend	Thompson "A"	1	Hart	7136-7160'	Gibson	7085-7099'	July '51
Golden Trend	Tibsen	1	Hart	7853-7913'	Gibson	7663-7673'	Oct. '49
Golden Trend	Vena	1	Hart	7622-7656'	Gibson	7428-7505'	June '52
Golden Trend	Walden	1	Hart	7485-7560'	Gibson	7346-7400'	May '51
Golden Trend	Walden	2	Hart	7488-7568'	Gibson	7344-7369'	Aug. '51
Golden Trend	Wilber	1	Hart	7314-7336'	Gibson	7187-7255'	Mar. '51
E. White Point	Sand	3	1st Sinton	5785-5815'	E. White Point	5605-5610'	July '53
Chocolate Bayou	Banfield	2	U.Houston Farms	11432-11475'	L. Houston Farms	11012-11020'	Aug. '53
Chocolate Bayou	Schenck	4	U.Houston Farms	9838-9882'	Upper Frio	8821-8826'	Aug. '53
Fenwell	Millard "A"	1	Ellenburger	8610-8677'	Wichita Albany	6556-6610'	Aug. '53
N. E. Andrews	Tex.Univ."VV"	1	Ellenburger	13813-13849'	Devonian	12530-12570'	Aug. '53

COPY

(Skelly Exhibit #1)

SKELLY OIL COMPANY
Mexico "F" Lease
Wolfcamp Formation

LEASE DEVELOPMENT:

First well started - February - 1952
Last well completed - April - 1953
Number wells drilled- 6

INVESTMENT:

Total investment as of 6-30-53	-	$884,854.00
Payout status as of 6-30-53	-	200,951.00
Operating expense including production tax		-$56,858.00
Production - gross barrels	-	285,808.00
Lifting cost per gross barrel	-	$.20
Payout rate - per month	-	$70,000.00
Estimated date of payout	-	Oct. 1,1953
Average per well investment (Includes tank battery)		$147.476.00
Payout time per well		12.7 Months

Tubular requirements - average per well

Surface pipe	-	13-3/8	-	303 feet
Intermediate string	- 9-5/8 or	8-5/8	-	4753 "
Oil string	-	5-1/2	-	9204 "
Tubing	-	2	-	9142 "

Average per well tubular tonnage - 189 tons

MISCELLANEOUS:

Average elapsed time - spudding to release	- 62 days
Cement - total all casing	-3040 sx.
Acid	-1925 gal.
Perforations	- 140
Tank battery	-5-H1000
Average depth drilled	-9217

Skelly Ex. 1
Oct. 15, 1953

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(1) Case 557
Magnolia Exhibit #1

Company & Lease	Well No.	Unit	S-T-R
Atlantic Ref. Co			
Dickson A-13,	1	D	13-15-37
A-14	1	H	14-14-37
A-1	2	L	1-15-37
[illegible]			
	1	L	12-15-37
	2	D	12-15-37
	4	E	"
	5	M	"
[illegible]			
	3	M	13-14-37
12	4	D	24-14-37
State T			
	5	N	2-15-37
	6	F	
	7	N	
	8	M	
Gulf Oil Co			
[illegible]	3	E	14-[illegible]37
	4	K	"
	5	B	"
[illegible]		T	2 [illegible]
		J	
[illegible]			
[illegible]			
[illegible]			

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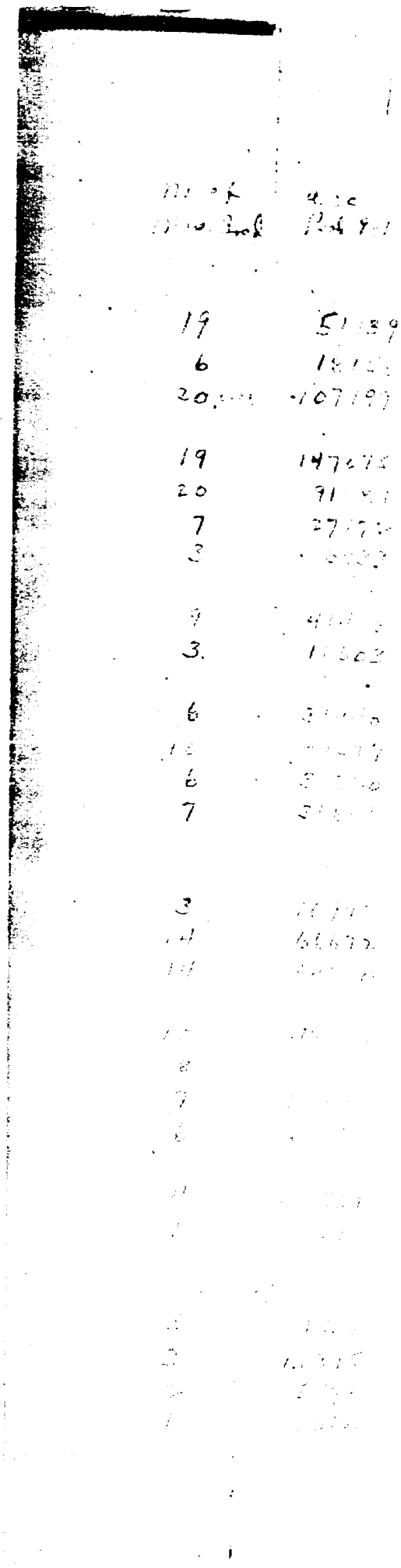

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(3) Case 501
Magnolia Exhibit
#1

Company & Lease		Well No.	Unit	S-T-R
Magnolia Petroleum Co				
12' Maxwell		2	P	27-14-37
		4	I	27-14-37
Pope		2	O	35-14-37
		8	M	26-14-37
		11	P	35-14-37
		15	J	26-14-37
		18	N	26-14-37
Mc. Alester Fuel Co				
Denton	A	2	O	11-15-37
McClure	A	2	G	14-15-37
	B	2	J	"
	D	1	H	"
State	A	2	H	2-15-37
Ohio Oil Co				
Denton		1	K	11-15-37
		2	I	"
		3	G	"
		10	L	"
[illegible] Co				
[illegible]		4	G	11-15-37
		5	A	"
		8	F	"
		10	N	"
		11	B	"
		[illegible]	C	"
[illegible]				
[illegible]		4	A	2-15-37
		5	N	"
[illegible]		2	I	10-15-37
		1	[illegible]	[illegible]
		[illegible]	[illegible]	[illegible]

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		Prod. 9-1-53	all
		27537	166
		2733	166
	10	46374	
	4	19960	
	3	16655	
	2	8465	
	2	6298	
	6	187702	
	7	125261	
	9	37516	
	9	17853	
	16	78093	
	20	170517	
	20	170578	
	12	57049	
	1	1963	
	16	80225	
	14	70074	
	18	92796	
	17	80700	
	17	80646	
	13	63935	
	9	40141	
	5	10221	
	1	1380	
	7	33713	
	11	48987	

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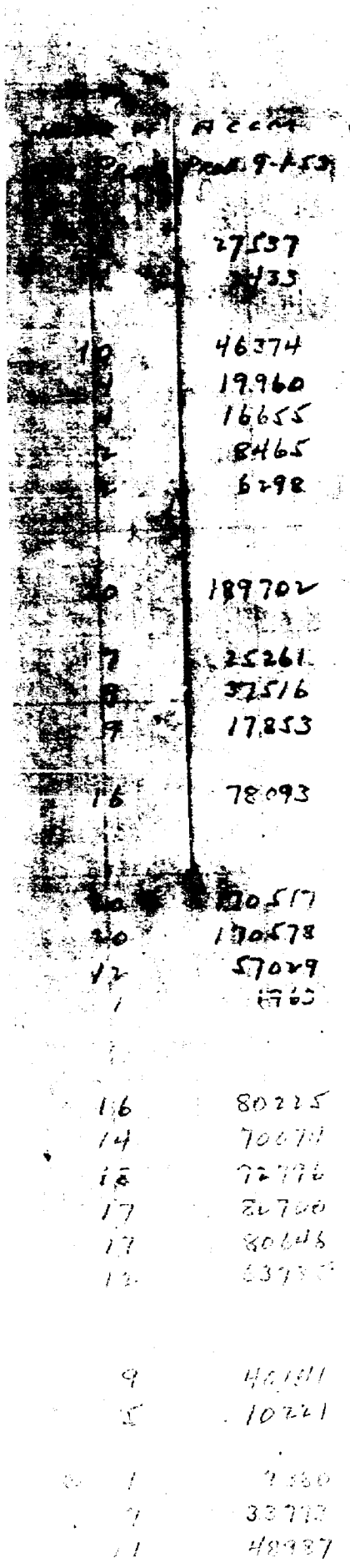

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(3) Case 557
Magnolia Exhibit

COMPANY & LEASE

SKELLY OIL CO
MEXICO

Magnolia Ex. 1
Oct. 15, 1953

③ Case 557 Magnolia Exhibit No. 1.

Form 5'
Form 7'

COMPANY & LEASE		WELL NO	UNIT	S-T-R	NUMBER OF ACRES FOR PRORATION
SKELLY OIL CO					
MEXICO	F	6	C	2-15-37	17
		7	G	"	16
		8	D	"	14
		9	E	"	14
		11	B	"	13
		12	A	"	4

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3717

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4. Magnolia Exhibit Number 1

I, ~~Richard R. Spurrier~~ William B. Macey, Member and Secretary of the Oil Conservation Commission of the State of New Mexico, certify that the two accompanying volumes, composed as follows:

Volume I - Application; Notice of Hearing; Order Number R-351; Petition for Re-hearing; Order Number R-351-A; Notice of Re-hearing; Order Number R-351-B; Oral Testimony of Hearing on July 16, 1953; and Oral Testimony of Re-hearing of October 15, 1953

Volume II - Exhibits Numbers 1 to 7, inclusive, of Phillips Petroleum Company, hearing of July 16, 1953; Exhibits Numbers 1 to 6, inclusive, of Phillips Petroleum Company, re-hearing of October 15, 1953; Skelly Oil Company Exhibit Number 1; and Magnolia Petroleum Company Exhibit Number 1

contain a true and complete record of all of the petitions, applications, notices, orders, and evidence in Case Number 557 before the Oil Conservation Commission of the State of New Mexico, and the said two volumes are certified as the official record in said Case Number 557.

In witness whereof, I have affixed my hand and the seal of the Oil Conservation Commission of the State of New Mexico on this 23rd day of July 1954.

William B. Macey
Richard R. Spurrier, Member and
Secretary, Oil Conservation
Commission of the State of New Mexico

PHILLIPS PETROLEUM COMPANY	)		IN THE DISTRICT COURT
VS.	)	NO. 11422	IN AND FOR LEA COUNTY,
OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO	)		NEW MEXICO, FIFTH JUDICIAL DISTRICT

S T I P U L A T I O N

It is stipulated and agreed by and between the Phillips Petroleum Company and the Oil Conservation Commission of the State of New Mexico, each acting by its duly authorized attorneys, that the two accompanying volumes, as certified by the Secretary of the Oil Conservation Commission of the State of New Mexico, contain a complete record of Case Number 557 before said Commission, and it is agreed that all or any part of the matter contained in said volumes may be introduced in evidence in this Case Number 11422 by any party, subject to objections as to competency, relevancy and materiality.

PHILLIPS PETROLEUM COMPANY

BY_____
Attorney

OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

BY_____
Attorney

C
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P
Y

June 11, 1953

AIR MAIL

Re: Application of Phillips Petroleum Company to Effect Oil-Oil Dual Completions between the Devonian and Wolfcamp Formations in its Fort Well No. 1, Fonso Well No. 1, and Denton Wells Nos. 12 and 13, Denton Field, Lea County, New Mexico

Mr. W. B. Macey
Chief Engineer, Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Macey:

Phillips Petroleum Company desires to oil-oil dually complete between the Devonian and Wolfcamp formations the following wells:

1. Fort Well No. 1, located in the NE/4 NE/4 Section 34-14S-37E, Lea County, New Mexico. This well was completed on September 1, 1951, in Devonian pay at a plugged back total depth of 12,724 feet. 12,789 feet of 5½-inch casing was set and perforated opposite the Devonian formation from 12,564 feet to 12,630 feet; and from 12,660 feet to 12,710 feet.

   It is proposed to perforate the Wolfcamp in this well as follows:

   Perforate 9645'-9680' test for water. If water squeeze
   and Perforate 9580'-9610' test for water. If water squeeze
   and Perforate 9500'-9550' test for water. If water squeeze
   and Perforate 9360'-9460' combine with previous formations that were water free.

   Offset operators to this lease with their addresses are as follows:

   Atlantic Refining Company — Atlantic Building, Dallas, Texas

Magnolia Petroleum Company	Magnolia Building, Dallas, Texas
Shell Oil Company	Petroleum Building, Midland, Texas
Ralph Lowe & Cabot Carbon Co.	V & J Tower, Midland, Texas

2. Fonzo Well No. 1, located in the NW/4 NW/4, Section 35-14S-37E, Lea County, New Mexico. This well was completed on July 17, 1952, in Devonian pay at a plugged back total depth of 12,687 feet. 12,710.83 feet of 5½-inch casing was set and perforated opposite the Devonian formation from 12,580 feet to 12,680 feet; and from 12,456 feet to 12,550 feet.

It is proposed to perforate the Wolfcamp in this well as follows:

Perforate 9550'-9590' test for water. If water squeeze
and Perforate 9480'-9520' test for water. If water squeeze
and Perforate 9400'-9440' test for water. If water squeeze
and Perforate 9260'-9360' combine with previous formations that were water free.

Offset operators to this lease with their addresses are as follows:

Atlantic Refining Company	Atlantic Building, Dallas, Texas
Magnolia Petroleum Company	Magnolia Building, Dallas, Texas
Ralph Lowe & Cabot Carbon Co.	V & J Tower, Midland, Texas

3. Denton Well No. 12, located in the SW/4 NW/4, Section 11-15S-37E, Lea County, New Mexico. This well was completed on June 24, 1952 in Devonian pay at a plugged back total depth of 12,772 feet. 12,752 feet of 5½-inch casing was set and perforated opposite the Devonian formation from 12,650 feet to 12,700 feet; and 12,600 feet to 12,650 feet.

It is proposed to perforate the Wolfcamp in this well as follows:

Perforate 9540'-9590' test for water. If water squeeze
and Perforate 9480'-9500' test for water. If water squeeze
and Perforate 9350'-9460' test for water. If water squeeze
and Perforate 9230'-9320' combine with previous formations that were water free.

Offset operators to this lease with their addresses are as follows:

Atlantic Refining Company	Atlantic Building, Dallas, Texas
Shell Oil Company	Petroleum Building, Midland, Texas
Gulf Oil Corporation	Gulf Building, Pittsburgh 30, Pennsylvania
Ohio Oil Company	Donnell Building, 539 S. Main St. Findlay, Ohio

4. Denton Well No. 13, located in the NW/4 NW/4, Section 11-15S-37E, Lea County, New Mexico. This well was completed on October 19, 1952, in the Devonian pay at a plugged back total depth of 12,745 feet. 12,736 feet of 5½-inch casing was set and perforated opposite the Devonian formation from 12,700 feet to 12,730 feet; and from 12,580 feet to 12,670 feet.

It is proposed to perforate the Wolfcamp in this well as follows:

Perforate 9530'-9580' test for water. If water squeeze
and Perforate 9460'-9500' test for water. If water squeeze
and Perforate 9290'-9430' test for water. If water squeeze
and Perforate 9150'-9260' combine with previous formations that were water free.

Offset operators to this lease with their addresses are as follows:

Atlantic Refining Company	Atlantic Building, Dallas, Texas
Shell Oil Company	Petroleum Building, Midland, Texas
Gulf Oil Corporation	Gulf Building, Pittsburgh 30, Pennsylvania
Ohio Oil Company	Donnell Building, 539 S. Main St. Findlay, Ohio

Baker & Otis equipment will be used in these completions, together with some additional equipment subcontracted from Garrett Oil Tools, Inc., for gas lift installations, if necessary. Baker Oil Tools representatives will present cutaway models of the equipment to be used, together with diagrammatic sketches of proposed installations, and will demonstrate and explain this equipment and the installations to the Commission.

I am attaching appropriate plats showing lease and well locations.

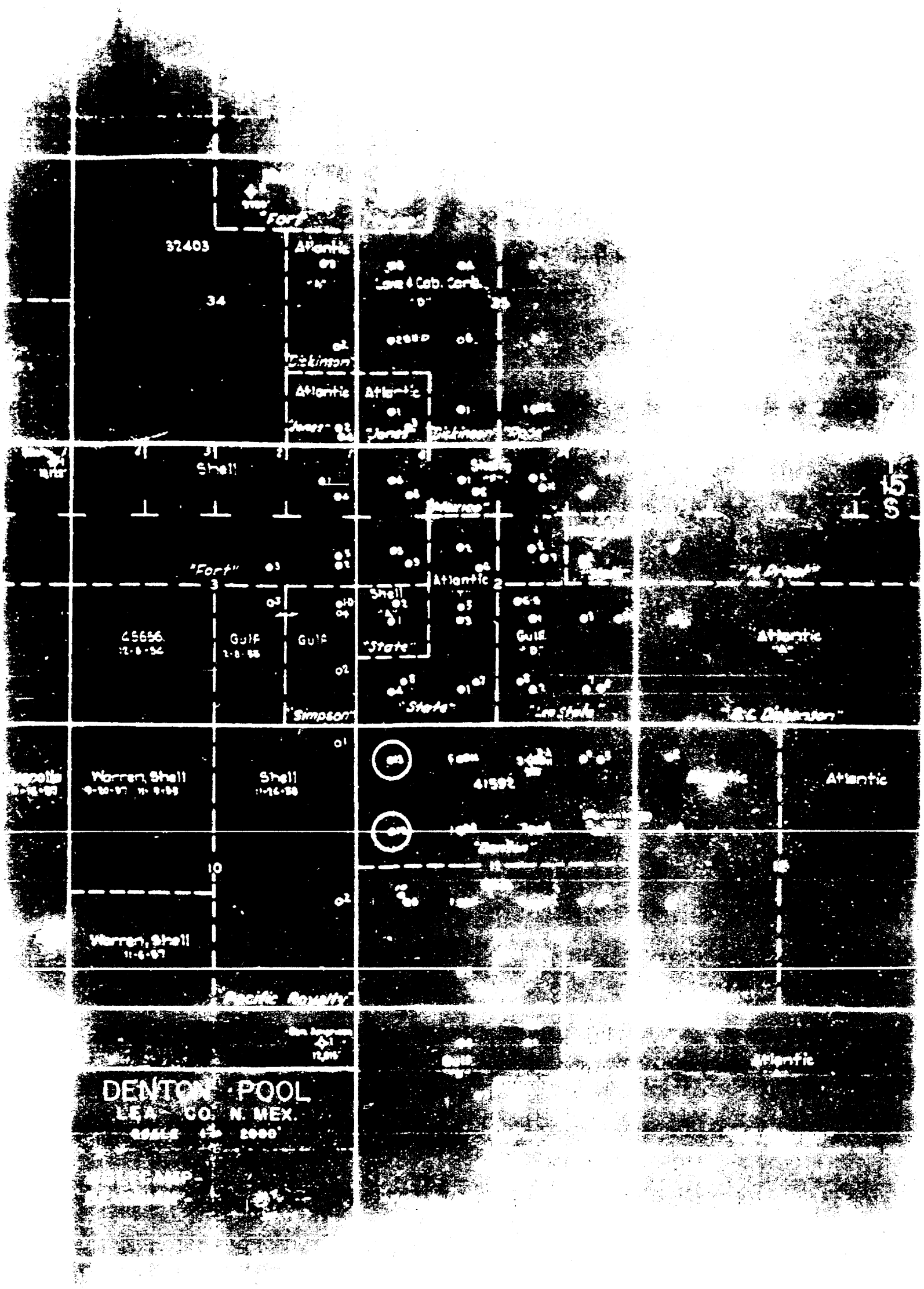
Very truly yours,

/s/ E. H. Foster

E. H. Foster

EHF:fe
Encls. Plats 2
Extra Copy This Letter

cc: Messrs: Harry D. Turner
L. E. Fitzjarrald


32403
34
Atlantic
Shell
"Fort"
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Atlantic 2
Gulf
"State"
Simpson
Warren, Shell
Shell
10
Warren, Shell
DENTON POOL
LEA CO. N. MEX.
Atlantic

NOTICE AS PUBLISHED IN THE NEW MEXICAN AT SANTA FE, NEW MEXICO AND IN THE HOBBS DAILY NEWS SUN AT HOBBS, NEW MEXICO, ON JUNE 29, 1953

LEGAL ADVERTISING

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the rules and regulations of said Commission promulgated thereunder of the following public hearings to be held at 9 o'clock a.m. on July 16, 1953, at Mabry Hall, State Capitol, in the City of Santa Fe, New Mexico.

STATE OF NEW MEXICO TO:
All named parties and persons having any right, title, interest or claim in the following cases, and notice to the public.

CASE 532: (Readvertisement)

In the matter of the revised application of the Oil Conservation Commission of New Mexico upon its own motion for an order authorizing the revision, modification and amendment of variously numbered rules in Sections 'G', 'A', and 'M' of the Rules and Regulations of the Commission (Revised Jan. 1, 1953), with particular reference to Rule 502, relating to Rate of Producing Wells and Daily and Monthly tolerances, etc.; and Rule 503 relating to Production Authorization and including therein the matter of so-called 'Back Allowable'; the insertion of a working definition of the term 'Back Allowable' within Section 'A' of said Rules; the addition to Section 'M' relating to forms, of said Rules and Regulations, of such other and additional required forms as may appear necessary or convenient as a result of any revision, modification or amendment of any of the rules aforesaid; the amendment of, deletion from or addition to any conflicting section, definition, phrase or clause in Order R-88-A or any other order previously issued by the Commission bearing on the foregoing matters.

CASE 555:

In the matter of the application of Lowry et al Operating Account for the approval of a pilot pressure maintenance program by water injection in one or both of two wells, said injection wells located in SW¼ SW¼ Section 3 and NE¼ NW¼ Section 10, Township 26 North, Range 6 West, NMPM, in the South Blanco-Tocito Pool, Rio Arriba County, New Mexico.

CASE 556:

In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Fort Well No. 1, NE¼ NE¼ Section 34, Township 14 South, Range 37 East NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,544 to 12,710 feet, and oil from the Wolfcamp formation after perforating from 9,580 to 9,360 feet.

CASE 557:

In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Fonzo Well No. 1, NW¼ NW¼ Section 35, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico, (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,456 to 12,630 feet, and oil from the Wolfcamp formation after perforating from 9590 to 9260 feet.

CASE 558:

In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Denton Well No. 12, SW¼ NW¼ Section 11, Township 15 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,600 to 12,700 feet, and oil from the Wolfcamp formation after perforating 9550 to 9230 feet.

CASE 559:

In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Denton Well No. 13, NW¼ NW¼ Section 11, Township 15 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,580 to 12,730 feet, and oil from the Wolfcamp formation after perforating 9580 to 9150 feet.

CASE 560:

In the matter of the application of the Oil Conservation Commission of New Mexico upon its own motion for an order calling for the creation of new pools and extension of existing pools in San Juan and Rio Arriba Counties, New Mexico, and giving notice to all persons and parties interested in the subject matter thereof to appear and show cause why such extensions and creations should not be made.

(a) Create a new pool in San Juan County, New Mexico, classified as a gas pool for Dakota production, designated as the Huerfano-Dakota Pool, and described as:

Twp. 26N, Rge. 10W, NMPM
Section 13: S½;
Section 14: SE¼;
Section 23: E½;
Section 24: All

(b) Create a new pool in Rio Arriba County, New Mexico, classified as a gas pool for Dakota production, designated as the Companero-Dakota Pool, and described as:

Twp. 27 N. Rge. 5W NMPM
Section 3: W½;
Section 4: all;
Section 9: N½;
Section 10: NW¼

(c) Create a new pool in San Juan County, New Mexico, classified as a gas pool for Dakota production, designated as the Blanco-Dakota Pool, and described as:

Twp. 31N, Rge. 10W, NMPM
Section 27: all;
Section 28: E½;
Section 33: NE¼;
Section 34: N½

(d) Create a new pool in San Juan County, New Mexico, classified as a gas pool for Dakota production, designated as the West Kutz-Dakota Pool, and described as:

Twp. 28N, Rge. 12W, NMPM
Section 21: E½;
Section 22: all;
Section 27: N½;
Section 28: NE¼

(e) Create a new pool in Rio Arriba County, New Mexico, classified as a gas pool for Dakota production, designated as the South Blanco-Dakota Pool, and described as:

Twp. 26N, Rge. 6W, NMPM
Section 9: S½;
Section 10: SW¼;
Section 15: W½;
Section 16: all

(f) Extend the Fulcher-Kutz—Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

Twp. 27N, Rge. 8W, NMPM
Section 18: W½

(g) Extend the West Kutz-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

Twp. 27N, Rge. 10W, NMPM
Section 32: E½

(h) Extend the Angels Peak Pool in San Juan County, New Mexico, to include therein:

Twp. 27N, Rge. 10W, NMPM
Section 9: E½;
Section 10: NW¼, S½;
Section 15: all;
Section 16: E½;
Section 22: all;
Section 23: W½;
Section 26: NW¼;
Section 27: N½

CASE 561:

In the matter of the application of the Oil Conservation Commission of New Mexico upon its own motion for an order for the extension of existing pools in Lea and Eddy Counties, New Mexico, and giving notice to all persons and parties interested in the subject matter thereof to appear and show cause why such extensions should not be made.

(a) Extend the East Caprock-Devonian Pool boundary in Lea County, New Mexico, to include therein:

Twp. 12S, Rge. 32E, NMPM
Section 2: N/2

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(b) Extend the Crossroads-Pennsylvanian Pool boundary in Lea County, New Mexico, to include therein:

Twp. 9S, Rge. 36E, NMPM
Section 19: E½

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(c) Extend the Dollarhide-Drinkard Pool boundary in Lea County, New Mexico, to include therein:

Twp 25S, Rge. 38E, NMPM
That portion of the N½ of Section 4 that lies within the State of New Mexico; and N½ Section 5

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(d) Extending the Dollarhide-Queen Pool boundary in Lea County, New Mexico, to include therein:

Twp 24S, Rge. 38E, NMPM
Section 30: S½

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(e) Extend the Eidson-Pennsylvanian Pool boundary in Lea County, New Mexico, to include therein:

Twp. 16S, Rge. 35E, NMPM
Section 7: SE¼;
Section 8: SW¼;
Section 17: NW¼

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(f) Extend the East Hobbs-San Andres Pool boundary in Lea County, New Mexico, to include therein:

Twp. 18S, Rge. 39E, NMPM
Section 30: all

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(g) Extend the Monument-Blinebry Pool boundary in Lea County, New Mexico, to include therein:

Twp. 20 South, Rge. 37E, NMPM
Section 7: NE¼;
Section 8: NW¼

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(h) Extend the Empire Pool boundary in Eddy County, New Mexico, to include therein:

Twp. 17S, Rge. 28E, NMPM
Section 19: SE¼;
Section 30: E½

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

GIVEN under the seal of the Oil Conservation Commission at Santa Fe, New Mexico, this 25th day of June, 1953.

(Seal)

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
R. R. SPURRIER, Secretary

(Pub. June 29, 1953).

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 557
Order No. R-351

THE MATTER OF THE APPLICATION OF
PHILLIPS PETROLEUM COMPANY FOR
PERMISSION TO EFFECT DUAL COMPLETION
OF ITS FONZO NO. 1 WELL, LOCATED IN
NW/4 NW/4, SECTION 35, TOWNSHIP 14
SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY,
NEW MEXICO (IN THE DENTON FIELD) IN SUCH
A MANNER AS TO PERMIT PRODUCTION OF OIL
FROM THE DEVONIAN FORMATION, THROUGH
EXISTING CASING PERFORATIONS, 12,580 TO
12,680 FEET, AND FROM 12,456 TO 12,550 FEET,
AND OIL FROM THE WOLFCAMP FORMATION,
AFTER PERFORATING 9590 TO 9260 FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 16, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission."

NOW, on this 28th day of August, 1953, the Commission, a quorum being present, having considered the application and the testimony adduced at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

(2) That dual completion of the Fonzo No. 1 Well, in the NW/4 NW/4 Section 35, Township 14 South, Range 37 East, NMPM, in the Denton Field, Lea County, New Mexico, for production of oil from the Denton-Wolfcamp formation and oil from the Denton-Devonian formation would be subject to the operational hazards incident to great depths.

(3) That there exists between the two reservoirs a considerable pressure differential, and, should interzone communications occur from any reason, the deeper Devonian Reservoir with the higher pressure would be injured.

(4) That testimony shows that packer, and other mechanical failures in oil-oil completions at various depths have caused injurious interzone communication in reservoirs in other areas under conditions similar to those existing in the Denton Field.

(5) That applicant's testimony as to the economic effectiveness of the Wolfcamp pay section under the subject well appears to be unduly conservative.

(6) That application for oil-oil dual completion of the Fonzo No. 1 well should be denied.

IT IS THEREFORE ORDERED:

That the application of Phillips Petroleum Company for permission to dually complete its Fonzo No. 1 Well, located in the NW/4 NW/4, Section 35, Township 14 South, Range 37 East, NMPM, for oil from the Denton-Wolfcamp formation and oil from the Denton-Devonian formation be, and the same hereby is denied.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
/s/ E. L. Mechem

EDWIN L. MECHEM, CHAIRMAN

/s/ E. S. Walker

E. S. Walker, Member

/s/ R. R. Spurrier

R. R. Spurrier, Secretary

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE
OF CONSIDERING:

CASE NO. 557
ORDER NO. R-351-A

THE MATTER OF THE APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR PERMISSION TO EFFECT DUAL COMPLETION OF ITS FONZO NO. 1 WELL, NW/4 NW/4 SECTION 35, TOWNSHIP 14 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY, NEW MEXICO, IN THE DENTON POOL, IN SUCH MANNER AS TO PERMIT PRODUCTION OF OIL FROM THE DEVONIAN FORMATION THROUGH EXISTING CASING PERFORATIONS (12,580-12,680' AND 12,456 - 12,550) AND OIL FROM THE WOLFCAMP FORMATION AFTER PERFORATING 9590 - 9260'.

ORDER OF THE COMMISSION FOR RE-HEARING

BY THE COMMISSION

This cause came on for hearing upon the petition of Phillips Petroleum Company for a re-hearing on Order No. R-351 heretofore entered on August 28, 1953.

NOW, on this 28th day of September, 1953, the Commission, a quorum being present, having fully considered said motion and application,

IT IS HEREBY ORDERED:

That the above-entitled matter be re-opened and a re-hearing in said cause be held on October 15, 1953, at 9 o'clock a.m. on said day at Santa Fe, New Mexico, or at such time as the Commission may designate after due notice, at which time and place all interested parties may appear.

IT IS FURTHER ORDERED: That the effective date for the operation of Commission Order No. R-351 be, and the same hereby is suspended pending further order of the Commission in the premises.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
/s/
Edwin L. Mechem, Chairman
/s/
E. S. Walker, Member
/s/
R. R. Spurrier, Member and Secretary

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 557
Order No. R-351

THE MATTER OF THE APPLICATION OF
PHILLIPS PETROLEUM COMPANY FOR
PERMISSION TO EFFECT DUAL COMPLETION
OF ITS PONZO NO. 1 WELL, LOCATED IN
NW/4 NW/4, SECTION 35, TOWNSHIP 14
SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY,
NEW MEXICO (IN THE DENTON FIELD) IN SUCH
A MANNER AS TO PERMIT PRODUCTION OF OIL
FROM THE DEVONIAN FORMATION, THROUGH
EXISTING CASING PERFORATIONS, 12,580 TO
12,680 FEET, AND FROM 12,456 TO 12,550 FEET,
AND OIL FROM THE WOLFCAMP FORMATION, AFTER
PERFORATING 9590 TO 9260 FEET.

PETITION FOR REHEARING

Comes now Phillips Petroleum Company and respectfully petitions the Oil Conservation Commission of New Mexico for a rehearing in the above captioned matter, and in support thereof would show:

1. That Petitioner was the applicant in Case No. 557 before the Oil Conservation Commission of New Mexico, and is adversely affected by Order No. R-351 entered therein.

2. That while said order bears the date August 28, 1953, Petitioner was not notified that such order had been entered, or that any order had been entered, within the time allowed for applying for rehearing, and in that respect has been denied its rights as provided by law. (Sec. 69-223, New Mexico Statutes, 1941 Annotated, 1949 Supp.)

3. That the Commission erred in entering its order in this case, the same being Order No. R-351, and that said order is unlawful in that it is unreasonable, arbitrary and capricious and would deprive Petitioner of a valuable property right without due process of law, in the following respects:

(a) The order is not supported by the evidence

offered in this case, and there is no substantial evidence in the record to support said order.

(b) That the findings of the Commission are vague and indefinite, subject to ambiguity and doubt, and are insufficient to support the order of the Commission.

(c) That the findings of fact are not supported by substantial evidence, and are contrary to the evidence presented.

(d) That the testimony offered and exhibits introduced clearly show that the dual completion of the Fonzo No. 1 well in the NW/4 NW/4 Section 35, Twp. 14 S., R. 37 E., NMPM will not subject such well to operational hazards, that no serious danger of interzone communication exists and that reservoir conditions are highly favorable to the dual completion as proposed, and the equipment proposed to be used will afford adequate and ample protection to all producing horizons, all as is clearly shown by the testimony and exhibits offered at said hearing, and that such dual completion will result in the prevention of waste and protection of correlative rights.

(e) That the Commission order was not entered in accordance with law.

(f) That the order will require the drilling of an excessive number of wells, with attendant risks and economic loss.

WHEREFORE PETITIONER PRAYS:

1. That this petition for rehearing be considered timely filed.

2. That a rehearing of Case No. 557 be granted by the Commission.

3. That the Commission rescind its Order No. R-351, dated August 28, 1953, and enter in lieu thereof its order approving the dual completion of Petitioner's Fonzo No. 1 well, in the NW/4 NW/4 Section 35, T. 14 S., R. 37 E., NMPM, Lea County, New Mexico, for the production of oil from the Denton-Wolfcamp formation, and oil from the Denton-Devonian formation, all as proposed and prayed in the original petition herein.

Respectfully submitted.

Phillips Petroleum Company

By /s/ Jason Kellahin
Jason W. Kellahin
Attorney for Petitioner
Santa Fe, New Mexico

NOTICE AS PUBLISHED IN THE NEW MEXICAN AT SANTA FE, NEW MEXICO ON OCTOBER 1, 1953, AND IN THE HOBBS DAILY NEWS SUN AT HOBBS, NEW MEXICO, ON OCTOBER 2, 1953

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE - NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder of the following public hearings to be held at 9 o'clock a.m. on October 15, 1953, at Mabry Hall, State Capitol, Santa Fe, New Mexico.

STATE OF NEW MEXICO TO:
All named parties and persons having any right, title, interest or claim in the following cases, and notice to the public.

(Note: All land descriptions herein refer to the New Mexico Principal Meridian, whether or not so stated.)

CASE 556: (Re-hearing)

Notice is hereby given by the State of New Mexico, through its Oil Conservation Commission, that Phillips Petroleum Company, upon proper petition, has requested a re-hearing in Case 556; that in said petition, petitioner asks recision of Order No. R-350, which order refused petitioner's application for permission to effect dual completion of its Fort No. 1 Well, NE4 NE4 Section 34, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico, in such manner as to permit production of oil from both the Devonian and Wolfcamp formations; that the Commission, by its Order No. R-350-A, has granted said re-hearing and set it for 9 a.m. on October 15, 1953, at Mabry Hall, Santa Fe, New Mexico, at which time and place petitioner and other interested parties will be heard.

CASE 557: (Re-hearing)

Notice is hereby given by the State of New Mexico, through its Oil Conservation Commission, that Phillips Petroleum Company, upon proper petition, has requested a re-hearing in Case 557; that in said petition, petitioner asks recision of Order No. R-351, which order refused petitioner's application for permission to effect dual completion of its Fonzo No. 1 Well, NW4 NW4 Section 35, Township 14 South, Range 37 East, Lea County, New Mexico, in such manner as to permit production of oil from both the Devonian and Wolfcamp formations; that the Commission, by its Order No. R-351-A, has granted said re-hearing and set it for 9 a.m. on October 15, 1953, at Mabry Hall, Santa Fe, New Mexico, at which time and place petitioner and other interested parties will be heard.

CASE 593:

In the matter of the application of Stanolind Oil & Gas Company for permission to dually complete its State 'E', Tract 17, Well No. 1, SW4 SE4 Section 1, Township 17 South, Range 36 East, Lea County, New Mexico in such manner as to permit production of oil from the Paddock zone of the Lovington-Paddock Oil Pool through the tubing and gas from the Queen formation through the casing-tubing annulus.

CASE 594:

In the matter of the application of Atlantic Pipe Line Company for permission to operate a temporary portable treating plant on its Leach Tank Farm, Hobbs, New Mexico, for the processing, treating and reclaiming of approximately 25,000 barrels of basic sediment and water which has accumulated in the tanks on said tank farm, in accordance with the provisions of Rule 312 of the Rules and Regulations.

In the matter of the application of El Paso Natural Gas Company for compulsory unitization of the E2 of Section 32, Township 31 North, Range 10 West, San Juan County, New Mexico; or, in the alternative, for approval of an unorthodox drilling unit of 240 acres, more or less, in the E2 of said Section 32, Township 31 North, Range 10 West.

CASE 596:

In the matter of the application of El Paso Natural Gas Company for compulsory unitization of the E2 of Section 32, Township 30 North, Range 8 West, San Juan County, New Mexico; or, in the alternative, for approval of an unorthodox drilling unit of 280 acres, more or less, in the E2 of said Section 32, Township 30 North, Range 8 West.

CASE 597:

In the matter of the application of El Paso Natural Gas Company or permission to drill a well in NE4 NE4 Section 16, Township 15 North, Range 17 West, McKinley County, New Mexico, for the storage of liquefied petroleum gas after washing out a storage cavity in the Chinle formation at an approximate depth of 800 feet.

CASE 598:

In the matter of the application of the Oil Conservation Commission upon its own motion for a revision of Rule 104 (b) pertaining in part to well spacing in San Juan, Rio Arriba, Sandoval and McKinley Counties, New Mexico, and for a revision of Orders R-59, R-46 and R-110 pertaining to spacing of gas wells to be drilled to the Pictured Cliffs formation and to the Mesaverde formation.

CASE 599:

In the matter of the application of the Oil Conservation Commission upon its own motion for the creation of new pools and extension of existing pools in Lea County, New Mexico, and giving notice to all persons and parties interested in the subject matter thereof to appear and show cause why such extensions and creations should not be made.

(a) Create a new pool in Lea County, New Mexico, classified as an oil pool for Seven Rivers production, designated as the East Hobbs-Seven Rivers Pool, and described as:

Township 18 S, Range 38 E
All of Section 25

and such other contiguous lands as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(b) Extend the Crossroads Pool boundary in Lea County, New Mexico, to include therein:

Township 9 S, Range 36 E
S2 Section 22

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(c) Extend the Denton-Wolfcamp Pool boundary in Lea County, New Mexico, to include therein:

Township 14 S, Range 37 E
N2 Section 26; all Section 36
Township 15 S, Range 37 E
E2 Section 10

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(d) Extend the Levington-Paddock Pool boundary in Lea County, New Mexico, to include therein:

Township 16 S, Range 36 E
S2 Section 25

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

(e) Extend the Lynch Pool boundary in Lea County, New Mexico, to include therein:

Township 20 S, Range 34 E
E2 Section 35

and such other lands contiguous to said pool as may properly be included therein as supported by proper testimony and recommendations adduced at said hearing.

CASE 600:

In the matter of the application of the Oil Conservation Commission upon its own motion for the extension of existing pools in San Juan and Rio Arriba Counties, New Mexico, and giving notice to all persons and parties interested in the subject matter thereof to appear and show cause why such extensions should not be made.

(a) Extend the Blanco-Mesaverde Pool boundary in San Juan and Rio Arriba Counties, New Mexico, to include:

Township 29 N, Range 6 W
Sections 19 - 36, incl., all
Township 30 N, Range 6 W
Sections 22 and 24, all
Township 28N, Range 6 W
Partial sections 7 thru 15, incl., all;
Sections 13 thru 18, incl., all
Township 29 North, Range 7 W
Sections 20 thru 29, incl., all;
Sections 32 thru 36, incl., all

(b) Extend the Aztec-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include:

Township 29 N, Range 10 W
Section 3, all

(c) Extend the West Kutz-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include:

Township 28 N, Range 13 W
N2 Section 24

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, this 28th day of September, 1953.

State of New Mexico
Oil Conservation Commission
R. R. SPURRIER, Secretary.

(SEAL)

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 557
ORDER NO. R-351-B

THE MATTER OF THE APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR PERMISSION TO EFFECT A DUAL COMPLETION OF ITS FONZO NO. 1 WELL, LOCATED IN THE NW/4 NW/4 SECTION 35, TOWNSHIP 14 SOUTH, RANGE 37 EAST, NMPM., LEA COUNTY, NEW MEXICO (IN THE DENTON FIELD), IN SUCH A MANNER AS TO PERMIT PRODUCTION OF OIL FROM THE DEVONIAN FORMATION THROUGH EXISTING CASING PERFORATIONS, 12,580 TO 12,680 FEET, AND OIL FROM THE WOLFCAMP FORMATION AFTER PERFORATING FROM 9,590 TO 9,260 FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing upon the petition of Phillips Petroleum Company on July 16, 1953 at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission" and for re-hearing on October 15, 1953.

NOW, on this 10th day of December, 1953, the Commission, a quorum being present, having fully considered the record and the testimony adduced and the exhibits received at said hearing and re-hearing, and being fully advised in the premises.

FINDS:

(1) That due public notice having been given, in accordance with law, the Commission has jurisdiction of this cause, the persons and subject matter thereof.

Case No. 557
Order No. R-351-B

(2) That after due public notice and hearing on July 16, 1953, the Commission entered its Order No. R-351, denying petitioner's application for dual completion (oil-oil) of its Fonso No. 1 Well, NW/4 NW/4 Section 35, Township 14 South, Range 37 East, NMPM., Lea County, New Mexico in the Denton Field.

(3) That upon motion duly filed, the Commission granted a re-hearing by its Order No. R-351-A for the purpose of taking additional testimony and hearing oral arguments, and that such re-hearing was held on October 15, 1953.

(4) That no evidence was presented at such re-hearing sufficient to justify an order granting petitioner's application.

IT IS THEREFORE ORDERED:

That Phillips Petroleum Company's application for permission to dually complete its Fonso No. 1 Well located in the NW/4 NW/4 Section 35, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico for production of oil from the Denton-Wolfcamp Pool, and oil from the Denton-Devonian Pool be and the same hereby is denied and the Commission's Order No. R-351 be and the same hereby is affirmed.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

/s/
EDWIN L. MECHEM, Chairman

/s/
E. S. WALKER, Member

/s/
R. R. SPURRIER, Member and Secretary

S E A L

Oral Testimony
Hearing - 7/16/53

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RECEIVED
Sept 22, 1953
Amarillo Legal Dept.

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

CASE 556: In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Fort Well No. 1, NE/4 NE/4 Section 34, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,536 to 12,710 feet, and oil from the Wolfcamp formation after perforating from 9680 to 9360 feet.

CASE 557: In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Fonzo Well No. 1, NW/4 NW/4 Section 35, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,456 to 12,680 feet, and oil from the Wolfcamp formation after perforating from 9590 feet to 9260 feet.
(contd next page)

TRANSCRIPT OF HEARING

July 16, 1953
Date

BEFORE: Honorable Ed. L. Mechem, Governor
Honorable E. S. Walker, Land Commissioner
Honorable R. R. Spurrier, Director, OCC

STATE OF NEW MEXICO)
ss
COUNTY OF BERNALILLO)

I HEREBY CERTIFY That the within transcript of proceedings before the Oil Conservation Commission is a true record of the same to the best of my knowledge, skill, and ability.

DONE at Albuquerque, N. M., this 30th day of July 1953.

/s/ E. E. Greeson
E. E. Greeson
Notary - Reporter

My Comm. Ex.:
August 4, 1956

(Seal)

CASE 558:

In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Denton Well No. 12, SW/4 NW/4 Section 11, Township 15 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,600 to 12,700 feet, and oil from the Wolfcamp formation after perforating 9590 to 9230 feet.

CASE 559:

In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Denton Well No. 13, NW/4 NW/4 Section 11, Township 15 South, Range 37 East, NMPM, Lea County, New Mexico (In the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,580 to 12,730 feet, and oil from the Wolfcamp formation after perforating 9580 to 9150 feet.

MR. SPURRIER: We will move on to the next case on the docket.

I believe we can consolidate Cases 556 through 559. Without objection, we will try to do that.

(Mr. Graham reads the advertisement of the cases.)

(Off the record.)

E. N. WASHBURN,

having been first duly sworn testified as follows:

DIRECT EXAMINATION

BY MR. PEACOCK:

Q Please state your name.

A E. N. Washburn.

Q And your address?

A Bartlesville, Oklahoma.

Q By whom are you employed?

A Phillips Petroleum Company.

Q For how long?

A I am working my twentieth year.

Q In what capacity?

A Engineer; petroleum engineer.

Q Have you testified before this Commission before?

A I have.

MR. PEACOCK: Is the Commission satisfied with Mr. Washburn's qualifications?

MR. SPURRIER: It is.

Q Mr. Washburn, for the record, we will be discussing the four wells concerned in the four cases Nos. 556 through 559. These wells will be generally denominated as the Ford No. 1, the Ponzo No. 1, the Denton No. 12 and the Denton No. 13. Are you familiar with these wells?

A Yes, sir, I am.

Q Are these producing oil wells at this time?

A Yes, sir.

Q From what formation do they produce?

A All four are presently Devonian wells.

Q At what depth is the Devonian formation?

A At approximately 12,500 feet.

Q How thick, measuring vertically, is the Devonian?

A In these wells in question: The Fort has approximately 147 feet of Devonian; the Fonzo has approximately 365 feet; and the Denton 13 has 948 feet; and the Denton No. 12 has about 620 feet. That is productive footage. It is approximately 200 feet more than that in the actual Devonian formation.

Q Are these presently flowing wells?

A They are.

Q Does the Wolfcamp formation lie above the Devonian formation in each of these wells?

A Yes, sir.

Q At what depth does the Wolfcamp lie?

A Approximately 9250 average.

Q How thick is the estimated Wolfcamp pay in the Fort No. 1?

A The productive footage is approximately 22 feet.

Q Do you have micro-log which reveals that information?

A We do.

MR. PEACOCK: I offer this micro-log in evidence

as Applicant's Exhibit 1.

Q Will you examine this micro-log section on the Fort No. 1 and, for the record, point out approximately the pay sands revealed by this micro-log in the Wolfcamp?

A The zone that we propose to perforate would be considerably more footage than the micro-log shows is actual porosity. We do that mainly so that we will get it all. The first zone is between 9645 and 9680, in which - it possibly goes below water-oil contact, and we have approximately five feet of porosity.

The second zone is 9580 to 9610, which contains approximately thirteen feet of porosity.

The third zone is 9500 to 9550, which contains approximately fifteen feet of porosity.

And the upper zone is 9360 to 9460, 100 feet of perforation for five feet of porosity. The porosity totals to about 38 feet.

But, based on examination of other cores from the Wolfcamp, we estimate about 22 feet, about two-thirds of that will be productive.

Q How thick is the Wolfcamp pay sand in the Fonzo and the Denton Nos. 12 and 13 wells?

A I don't have a micro-log of those wells. We estimate the footage in the Fonzo is about 35 feet of productive porosity, and that the two Denton wells will have probably

fifty feet of productive porosity.

Q Other than what you have told us about the conclusions of the Wolfcamp formation, is there any additional information that you have concerning the quality of the Wolfcamp formation in this area?

A You refer to its recovery?

Q Is it lime or --

A It is a lime, embedded with shale streaks.

Q Is it considered a tight formation in this area we are concerned with?

A Yes, it is considered tight.

Q What is the estimated total recovery from the Wolfcamp sand in the Fort No. 1?

A It is generally, from information that we have, we estimate recovery will be approximately 77 barrels per acre foot.

In the Fort well it would have a recovery of approximately 1700 barrels per acres.

Q And the Fort is on a 40-acre unit?

A 40-acre unit, which would give it a recovery of approximately about 68,000 barrels.

Q What would be the estimated total recovery from the Fonzo No. 1 well?

A I would estimate the Fonzo would have approximately 3000 barrels per acre, or about 120,000 barrels on a

40-acre unit.

Q Would the Denton No. 12 — Do you have figures on the Denton No. 12 and 13?

A They would probably have a recovery of about 4500 barrels per acre, or about 180,000 barrels for the 40-acre unit.

Q What would a 12,000 foot well such as the four wells under consideration cost to drill?

A The Devonian wells are priced about $320,000 each.

Q Does that include storage, taxes and lease cost?

A No, it doesn't.

Q What would it cost to complete a well to the Wolfcamp formation on these four units under discussion?

A Based on the price of six Wolfcamp wells we have drilled in the Denton field, about $200,000.

Q Does that include storage, taxes and lease cost?

A No.

Q What would it cost to dually complete these four wells? That is, the Fort No. 1, the Fonze and the Dentons 12 and 13, so that they could be produced both from the Devonian and Wolfcamp formations?

A That price will vary. Probably thirty to forty thousand dollars.

Q Could it run slightly more or slightly less?

A It could run slightly more and with good success, it could be a little less.

Q The estimated total recovery from the Wolfcamp formation in the Fort No. 1 unit is - which you gave us a while ago - is that sufficient to pay back the drilling cost of another well completed to the Wolfcamp formation on that unit?

A No, sir, it isn't.

Q What can you say about the Fonso No. 1 with relation to the estimated total recovery balanced against the drilling cost of a single well there?

A Considering lifting cost, royalties, production tax, income tax, and taking credit for depletion allowance, there possibly would be a break-even deal, not discounting your money that would be tied up for that period.

Q How long is the estimated economic life of the Devonian pay sand in this area?

A The Devonian is estimated to have a thirty to fifty year life. It may exceed that.

Q Now, these four wells which are now producing from the Devonian, are they flowing wells at this time?

A Yes, sir.

Q Is it your opinion they will continue to be flowing wells for as long as they are produced from the Devonian?

A No; they eventually would have to be artificially lifted.

Q Have you an opinion concerning the time at which artificial lifting methods must be applied to this Devonian sand?

A No, sir. I would say that it would be reasonable to expect the flowing life of the Devonian, most of the Devonian, will be flowing by the time the Wolfcamp is abandoned.

Q What is your opinion as to the economic life of the Wolfcamp in this area?

A The Wolfcamp in various studies has been estimated to be approximately ten years.

Q Is the Wolfcamp presently produced by flowing?

A Yes, sir.

Q Will it be able to be produced in that manner during the economic life of that Wolfcamp formation, or must artificial lifting means be applied there at some future date?

A Artificial lift will be required at a later date.

Q Therefore, is it your conclusion that the Wolfcamp will be depleted; that is, it will be at the end of its economic life before it is necessary to artificially lift the oil from the Devonian?

A That is a reasonable assumption; yes, sir, that's right.

Q Upon what do you base that?

A On various studies that we have made.

Q What is the difference in the bottomhole pressure between the Devonian and the Wolfcamp in the wells in this area?

A The Wolfcamp has approximately 3200 pounds and the Devonian has approximately 4500 pounds.

Q Will that pressure decrease as the fields are produced?

A The Wolfcamp pressure is declining at a faster rate than the Devonian.

Q Is the Wolfcamp and the Devonian oil corrosive?

A No; they are considered both sweet oil.

Q Is it considered that they will materially affect the seals which are placed outside the casing and at other places in dual completions?

A We wouldn't expect it to.

Q Has the Wolfcamp formation been sealed off from the Devonian in these four wells outside the casing?

A The wells have been cemented by two-stage cement jobs, using approximately six to eight barrels - I mean six to eight hundred bags - of cement.

In three casing temperature surveys, which were made after the second stage cement job, the cement was found between 2000 and 5000 feet.

In the Fort well 150 sacks were cemented and cir-

culated outside of the casing.

Q Is there any communication between the Devonian and the Wolfcamp in these wells?

A I can't answer that. We don't think there is.

Q Would an additional test for communication be made prior to the installation of any dual completion on these wells?

A That would be the standard procedure in dual completing a well, to run a retrievable packer to test communication outside the pipe before setting the permanent packer.

Q Will you explain what you mean by dual completion?

A The process of separating two zones by a form of packer and having a cross-over flow nozzle where you can arbitrarily produce either zone through either the annulus or the tubing.

Q What size casing is in each of these four wells?

A All have 5½-inch casing.

Q What type of equipment is it proposed that would be used in dually completing these wells? That is, the equipment of what companies?

A We propose to use the Baker production packer and the Otis cross-over nipples.

Q Now, have you prepared exhibits which represent a true schematic cutaway view of the proposed dual completion

using Baker-Otis equipment?

A Yes, sir.

MR. PEACOCK: I would like to offer in evidence these schematic drawings as Applicant's Exhibits 2, 3, 4 and 5. Those are - There is one drawing for each of the wells under consideration.

MR. SPURRIER: Without objection, they will be admitted.

(Off the record.)

Q Will the methods shown allow oil to be flowed from both the Devonian and Wolfcamp formations in these wells without commingling?

A Yes, sir.

Q Is it proposed to measure the oil produced from each formation separately?

A It is.

Q Will you describe briefly the method proposed to perforate the casing to produce from the Wolfcamp?

A I previously covered that. Our geological department has picked four zones in each of the wells they would like to perforate and in order that we may get all the productive porosity in the well. Those four zones are shown on the left of each of the exhibits. It should be understood if any zone shows water, that that zone would be squeezed off. We may have one of the four zones squeezed

off. The first zone is possibly the water zone. It is the lowest zone.

Q Have you prepared an exhibit which represents a schematic cross section view of your dual completion equipment which would allow pumping from the top zone and gas lifting or flowing from the bottom zone of such a well?

A Yes, sir.

MR. PEACOCK: We would like to offer in evidence this Applicant's Exhibit 6.

Q Now, do all of these schematic drawings represent cutaway views of the proposed Baker-Otis dual completion equipment which we intend to use in dually completing these wells?

A The Baker-Otis equipment is the same. This combination on this last exhibit would not necessarily have to be used. There is all reason to believe that only one zone at a time would have to be artificially lifted in each of these four wells.

Q Is your reason for such belief that it is your opinion that the Wolfcamp will be depleted prior to the time that it will be necessary to pump the Devonian?

A That's right.

Q This Exhibit 6 represents a Kobe hydraulic pump. Is that the only type pump which may be used in a dual completion?

A No, sir. There is several combinations you could use if you had to artificially lift both zones at the same time. This is one.

Q Then you do not present this as the only possible means for artificially lifting oil from either or both zones?

A No, sir, although this arrangement is being used successfully in other wells, not by Phillips.

Q Can remedial work be done on a dual completion well such as squeezing and acidizing and other types of remedial work along these lines?

A Yes, sir.

Q How many dual completion wells does Phillips Petroleum Company have now?

A 122 dually completed wells.

Q How many of these dual completion wells are oil-oil?

A 51 at last count.

Q Does a dual completion represent a saving in steel?

A Yes, sir.

Q ...ver the drilling of two wells?

A In this case about 90 to 100 ...

MR. PEACOCK: That is all I have from Mr. Washburn

MR. SPURRIER: Do you have another witness?

MR. PEACOCK: Yes, sir; I have two other witnesses.

MR. SPURRIER: Would you like to put them on now, or take the cross examination first?

MR. PEACOCK: Well, these other two will explain briefly the Baker-Otis equipment.

(Off the record.)

CROSS EXAMINATION

BY MR. SELINGER:

Q Mr. Washburn -- For the record, my name is George Selinger, and I represent the Skelly Oil Company. -- Mr. Washburn, I didn't -- In your original testimony I didn't get quite the 50 some odd dual completions you have. Is that Phillips Petroleum Company, your operation?

A 51 oil-oil dual completions in all their operations.

Q Where do they lie mostly, just generally?

A There is about 25 of them in the Oklahoma area around the Ardmore area.

There are 27 of them in the West Texas area, and the remaining are in Louisiana and the Gulf Coast.

Q How many of your dual completions in Oklahoma are as deep as 12,000 feet?

A There is none of them I know of that deep.

Q Are there any 9000 feet, 9400 feet, in Oklahoma?

A No, sir.

Q Now, how many of your dual completions in West Texas are at 12,000 feet?

A I don't know the exact number. There is some.

Q Do you know of any that are at 9400 feet?

A Yes, sir.

Q Now, how many in Louisiana or the Gulf Coast of Texas are at 12,000 feet?

A The Gulf Coast is mostly around five and six thousand feet.

Q Do you have any dual completions at 12,000 feet in the Gulf Coast?

A I don't have any and I don't intend to have; no, sir, we don't.

Q You don't have any. Now, with respect to the Denton pool, you estimate you had 50 feet of effective pay in the Wolfcamp in your Nos. 12 and 13 Denton; is that correct?

A Yes, sir.

Q Approximately. Now, to the east of - to the east on your twin wells drilled to the Wolfcamp, how many effective feet of pay do you have in those wells?

A I don't have that information here.

Q Is it more or less the same?

A The average for the field is about 53.

Q The average for the field is about 53, and these are 50.

A Yes, sir; approximately fifty feet. That is generous.

Q Well, then, insofar as Nos. 13 and -- 12 and 13 -- are concerned on the Denton lease, they are not below the average of pay thicknesses of the Wolfcamp producers.

A No, sir; they may be a little.

Q Now, you estimate you will recover 180,000 barrels of oil from each, approximately?

A Yes, sir.

Q You are saying those two wells will be uneconomic wells?

A No, sir; I am not.

Q Let's take the Fonzo well; you estimate you have 35 feet of effective pay in the Wolfcamp.

A Yes, sir.

Q Are there any offset wells to this well producing from the Wolfcamp?

A I believe there is one to the north. I don't have a map in front of me.

Q One to the north.

A My recollection is there is.

Q Do you know how much effective pay that well has in

the Wolfcamp?

A Not for sure; no, sir.

Q Is it more or less than what you estimate for your wells?

A I would estimate it approximately the same.

Q Is it a dual completion or a twin drilled well to the Wolfcamp?

A It is a twin well.

Q Who operates that?

A Magnolia.

Q I presume it is admitted there are no dually completed wells in the Denton pool; is that correct?

A That's right.

Q And this is the first attempt to secure dual completions for oil-oil in this field?

A The first to my knowledge.

7b Q Do you know how many Wolfcamp wells have been drilled in this field? If the latest records of the Commission indicate 96, is that approximately correct?

A I think it is.

Q In the neighborhood of 100 wells.

A I was thinking 93.

Q Do you know how many Devonian wells have been drilled?

A No, sir.

Q If the Commission records indicate 142, that is just about right?

A I have that information here. I can't find my information. I assume you're right.

Q That is all right. We can pass on and furnish that later. Now, all of the Wolfcamp wells that have been drilled have been drilled as twin wells to the Devonian, have they not?

A Yes, sir.

Q Now, with respect to the Ponso No. 1. What is your opinion as to whether or not that is an economic well or an uneconomic well for the Wolfcamp?

A I would estimate the Ponso was probably a break-even deal.

Q It isn't an uneconomic well in the sense of the term it will not pay back its drilling costs and operation?

A I don't think it would pay back its money if it was discounted.

Q You mean for profit and lease overhead. But I am talking about actual drilling cost and the cost of operations, physical field operations, and you are not saying to this Commission it will not pay that money back.

A It would probably be a break-even deal. It would probably pay the $200,000 back.

Q Are you figuring that 120,000 barrels at the latest price increase your company instituted?

A Yes, sir.

Q Now, Mr. Washburn, with respect to the actual mechanical means of dual completion, I believe you said all four of these wells are completed with 5½-inch OD casing; is that right?

A That's right.

Q And you estimate the flowing life of the Wolfcamp to be comparatively short, particularly as compared to the Devonian?

A Yes, sir.

Q Now, can you tell this Commission which of the horizons are producing water, if any?

A There is a little water being produced in each zone. The water in the Wolfcamp is more to the southeast.

Q Would you say that the Wolfcamp zone will eventually have more water productive each day as time goes on, rather than the Devonian?

A I would say the Devonian would probably produce more water.

Q To a larger extent than the Wolfcamp?

A Yes, sir.

Q Now, with respect to your 5½-inch casing, insofar as both zones produce, you will use the normal packer setting

and normal production of the deeper pay in the tubing, and the shallow pay between the annulus of the tubing and the casing?

A No, sir; I would flow the weak formation, the Wolfcamp, through the tubing, because I feel it will be the first to have to be pumped and we would be set for it.

Q And you would immediately have to set over a cross-over packer; is that correct?

A Yes, sir.

Q Would the likelihood of flowing be within the space of a year or two years, or three years, so far as the Wolfcamp is concerned?

A That will vary with the well. With the little section we have in the Fort, I would expect artificial lift to be required in one or two years. That is purely a guess.

Q When artificial lift is required, then you would use your diagramatic sketch, which is colored in yellow and red --

A I would continue to let the lower zone flow through the casing and with the conventional pump, pump the tubing.

Q How do you do that, pump one zone and flow the other, or is it necessary -- what is it necessary to do to the well mechanically?

A I don't know, other than setting artificial lift equipment.

Q Within your 5½-inch casing, what equipment would you have to put into the well - one string of tubing, two strings, or a macaroni?

A You will have several pieces. In the case shown, it would probably be a macaroni, Kobe conventional pump; or go to rods and put a conventional pump in, or go to the damper type pump, which is a hydraulic pump with a conventional engine.

Q When you go to rods, would you attempt to pump the oil from the 9400 foot or 12,000 foot —

A We are doing it every day.

Q In New Mexico?

A Just a little east of it, in West Texas.

Q Now, with respect to your gas lifting at 9000 and at 12,000 feet, have you made any estimates of the cost of gas injection for such gas lift?

A No, sir.

Q Can you tell this Commission whether or not such a means of operation is economic at those great depths?

A It would all depend on the allowable.

Q Well, suppose the present allowable.

A I mean on the — Present production would be economical if that was the way you had to go.

Q What is the present allowable?

A In the Devonian?

Q No; the Wolfcamp.

A 170 barrels in the Wolfcamp.

Q Do you believe that any of those four wells will be top allowable wells?

A I can't answer that. All the Wolfcamp wells we have drilled so far have been. Possibly the two of them would be. The two Denton wells; and it is possible the other two might come in potential 170.

Q Have you figured — Suppose that 170 barrels of oil allowable, have you estimated the volume of gas necessary to gas lift at a depth of 9000 and 12,000?

A When you have the artificial lifting of both zones, I believe - is that right?

Q Pick either one. If you want to use the first zone that ceases to flow, you can. Go ahead and do that if you desire.

A I haven't made calculations on the cost of gas lift.

Q At such depths with such pressures, would it take a comparably large or small volume of gas?

A It would take approximately 2000 cubic feet per barrel, as a guess.

Q Total gas, or over and above formation gas?

A Over and above formation gas.

Q What is the total volume of gas necessary to lift a barrel of oil now in the field from the Wolfcamp?

A Well, that was in it, if that is what you are getting at. Total solution gas?

Q No. What is the average gas-oil ratio now?

A Around 300, I believe, for the — Well, I have it here. The gas-oil ratio in the Wolfcamp is running about fourteen, sixteen hundred. And the Devnoian is running about 700.

Q Now that you have given the information with respect to the Wolfcamp, let's assume you have to artificially lift both the Devonian and the Wolfcamp. How much gas would it take to produce the top allowable for both horizons, as your first premise, if you can answer that?

A I don't have those figures. It is feasible to gas lift at those depths because it is being done. But I am not limited to gas lift. I can go to rods or hydraulic pumps also.

Q Let's assume gas lift. Would you be able to recover 170 barrels from one horizon and the larger allowable from the other horizon on gas lift?

A No, sir, but it is doubtful when artificial lifting comes you would have that full allowable.

Q Now, your 5½-inch casing, what size strings would you use within the well bore?

A It would depend on what is the situation. You want to lift both zones, now?

Q Yes.

A I would probably run 2-inch tubing and -- Well, if I was going to use rod pumps, I would run 2½-inch tubing; an Otis dual pump, run 2½-inch tubing. If going to have hydraulic, I would put a conventional hydraulic pump in, a conventional Kobe, and run 3-inch tubing with three-quarter macaroni string. And if I had gas lift on the outside, I would run 1-inch on the outside of that.

Q With that equipment in the hole, would there be any restriction mechanically as to the amount of oil that could be produced?

A In the Kobe you have a capacity of 150 to 175 barrels. This depends on what the lift is. You have got it at the extreme, which is what you want, I assume. No bottomhole pressure existing. Probably 150 or 170 barrels through Kobe equipment. And on the gas lift side, have an area equipped through 4-inch tubing. In your annulus, if you want to throw your macaroni, you could gas lift 70 to 80 barrels a day.

Q Where would the point of greatest restriction be in an installation like that? In the first place, would

there be any points of restriction in the production of oil? I believe you answered yes.

A The lowest capacity would be your Kobe equipment.

Q Where would the points of greatest restriction be in that installation on a Kobe pump?

A I don't know what that word "restriction" means.

Q You said that the equipment would restrict the volume of oil that could be produced.

A Yes, sir; it would be in the conventional Kobe equipment.

Q Now, having the most favorable equipment in your well, could you tell this Commission,if dually completing these wells to the Devonian and Wolfcamp from now until the end of time insofar as productionwise is concerned, you would recover more or less oil if you twinned a well to each of the two formations? What is your considered opinion?

A Well, recovery —

Q Where would you recover the most oil? We are talking about the recovery of oil only.

A Recovery of oil, it wouldn't make any difference. I could do just as much — the way I think the field will perform — I could do just as good in a dual well as a twin well, just about.

Q Even though in the dual completion well you have

in your 5½-inch casing in one instance, I believe you said, an inch and a half and an inch and a quarter, and in another instance two inches and one and a half inches?

A I will have that at the time when the volumes being handled will be considerably less than they are now, at least in one zone.

Q So, in your opinion, the total recovery would not be any different between the dual completions and the twins drilled in these two horizons in this field? Is that your answer?

A Yes, sir; if the field performs like I think it will.

Q If you want to rework a singly completed well as compared to a dually completed well, what differences are there in such reworking, if any?

A There is a little more. It is more expensive in the dual well.

Q Would you lose any appreciable amount of oil every time you reworked a dually completed well, whether from one horizon to the other horizon?

A I don't see why you would.

Q You wouldn't be required to shut down production from the Devonian, for example, --

A Yes, I see what you are getting at. You would lose your allowable at that time.

Q You would be shut down to the extent it takes to rework the Wolfcamp?

A Yes, sir.

Q If these are uneconomic wells as you say they are, and every time you shut down for the Wolfcamp production the other production is lost, or if you shut down for the Devonian to rework the Devonian well, whatever production is secured from the Wolfcamp is lost insofar as that deep production is concerned, if it isn't a top allowable well- is that correct?

A Yes, sir.

Q Do you anticipate any reworking of dually completed wells if the Commission permits you to dually complete these wells?

A There may be one reworking in the Devonian coming up, because we are completed low. As water encroaches, we will have to go back and complete in the top of the zone.

Q In your original testimony, you testified as to the bottomhole pressure of the Wolfcamp and the bottomhole pressure of the Devonian. What was that difference in bottomhole pressure?

A I believe about fifteen or seventeen hundred pounds.

Q Difference?

A Yes, sir.

Q And I believe you said the bottomhole pressure on

the Wolfcamp was declining more rapidly than the Devonian; is that correct?

A Yes, sir.

Q And therefore the 1700 pounds pressure differential will be markedly increased as time goes on; is that correct?

A I won't say markedly. It will be increased.

Q It will be increased from the difference of 1700 pounds, it will be more than 1700 pounds?

A Yes, sir.

Q In your installation picture you have given to the Commission, do you believe there is any danger about having so much pressure across your packers?

A No, sir, I don't. That testimony will come in later, on how much differential you can handle on a packer.

Q I am asking you as an engineer. You don't believe there is any danger of 2200 pounds pressure differential across the packer?

A We are using this packer in the Fort Stockton area with 9000 pounds across it.

Q Have you ever had any trouble with such packers with such pressures across?

A No, sir. That is one case I know of without trouble.

Q Have you ev r had any packer leaking or failing?

A Yes, sir, but they can be detected.

Q How can they be detected here in this case?

A There is packer tests which should be run periodically, or can be run periodically, by shutting in and pressuring up both zones.

Q How often should those periodic tests take place?

A At any time you suspect a leak.

Q I will ask you one final question, Mr. Washburn. Would you, as a cautious operator, as I know Phillips is, in any way jeopardize the better formation, the Devonian, by any attempted dual completions,would you ever have any doubts as to protection of the Devonian formation from the Wolfcamp?

A Rephrase that. I don't catch it.

Q I will rephrase it. Do you think there is any doubt of no harm being done to the better formation, the Devonian, by your dual completion installation with the Wolfcamp?

A If we were afraid of damaging, we wouldn't have asked for this hearing at all.

MR. SELINGER: That's all.

(Off the record.)

MR. SPURRIER: We will recess until 1:30.

(Noon recess.)

MR. SELINGER: Mr. Spurrier, may I add, for the record, insofar as the number of wells completed in the Devonian, there are 66 completed in the Devonian and 48 completed in the Wolfcamp. I wanted the record to be correct to that extent.

I wanted to ask Mr. Washburn one more question.

Q I asked with respect to the north offset to the Fonzo and you said Magnolia had a twin Wolfcamp well as a north offset to the Fonzo. Isn't that true of the Fort No. 1, that Magnolia has a twin Wolfcamp north of that well also?

A That's right, sir.

CROSS EXAMINATION BY MR. MADOLE:

MR. MADOLE: Ross Madole, on behalf of Magnolia Petroleum Company.

Q Mr. Washburn, before we start on these particular facts, is the basis of Phillips' contention in these cases that the economics don't justify the drilling of twin wells?

A In this particular instance, yes, sir.

Q Is that the basis of your applications?

A Pertaining especially to Fort No. 1.

Q What is the basis with reference to the others?

A That we can recover as much oil by dual completing as we could by twinning and save money and critical material

doing it.

Q You have no fear of damage to the reservoir?

A No, sir.

Q Has that been Phillips' position in previous hearings before the Commission?

A No, sir; it hasn't.

Q What has been Phillips' position before the Commission at the other hearings?

A You mean before this New Mexico --

Q Yes, sir.

A I am not familiar. When I said no, sir, I was referring to Texas.

Q Isn't it true in previous hearings before the Commission Phillips has been opposed to dual completions generally unless the economics of the pool as distinguished from the well didn't justify the drilling of an additional well?

A I have never run into that testimony, as far as the State of New Mexico is concerned. I can't answer that.

Q I would like to refer to the record in Cases No. 92, 93 and 94 in relation to the Hobbs Pool, Lea County, New Mexico, and the application of Gulf Oil Corporation, for dual completions of oil-oil formations. Judge Foster, on behalf of Phillips, made this statement:

"We are not opposed to dual completions generally but we do think each one should stand on its own merits. I have a statement to present to the Commission.

"Under ordinary competitive peacetime operations, we believe the production of two oil reservoirs by means of a dual completion is in general unwise and should be definitely discouraged in almost all future instances. There

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is little doubt in the vast majority of cases such practice will lend to smaller ultimate recovery of oil from at least one of the reservoirs involved. In addition, we feel added operating problems are numerous and dangerous, and far outweigh any savings that might be realized in the initial development cost.

"It is likewise perfectly obvious to us that producing oil through the annulus is inefficient and will certainly result in shortening the flowing life of the wells.

"We further believe with proper well spacing it is entirely possible to economically develop each producing oil reservoir in a field on an individual well basis, thus mostly eliminating the need for dual completions.

"There are some instances where extremely thin sand sections or rim reservoirs cannot be spaced in a manner to permit individual well development of each oil reservoir. Under such circumstances, if for this class of production, it is considered necessary dual completions might likely be the solution of the problem.

"When development is being carried on with conjunction of a plan of controlled pressure maintenance, there are undoubtedly certain other instances where dual completions might be amply justified.

"Dual oil-gas and dual gas-gas completions are not so susceptible to the many problems consistently found in dual completions of oil-oil wells.

"We therefore feel that the range of application is considerably broader and should be looked upon with greater general favor. However, it is suggested that even in this type of dual completion, each case should stand on its own merits.

"In conclusion, we would like to urge the Commission to adopt the policy of holding hearings and carefully checking each well application

for all types of dual c
be issued only after s
been received."

Now, there is no pressu
field, is there?

A No, sir.

Q Then, if your poli
now, then the only factor w
Are you still in accord wit
they believe in oil-oil dual completi
me what date that bears?

A That is no longer Phillips'

Q I would be glad to, sir. T
fifteenth of April, 1947, in the Sur
La Fonda Hotel, Santa Fe, New Mexico.

A There has been a considerab
technique of both manufacturers and
that day.

Q You have no fear of recurr
pletions?

A No, sir.

Q Now, on your dual completi
Phillips Petroleum Company had 51 du

A That accurate 51.

for all types of dual completion and permits be issued only after suitable evidence has been received."

Now, there is no pressure maintenance in the Denton field, is there?

A No, sir.

Q Then, if your policy at that time is the same as now, then the only factor would be the factor of economics? Are you still in accord with that general statement?

A That is no longer Phillips' policy. I believe they believe in oil-oil dual completions. Would you tell me what date that bears?

Q I would be glad to, sir. The meeting was on the fifteenth of April, 1947, in the Coronado Room of the La Fonda Hotel, Santa Fe, New Mexico.

A There has been a considerable improvement in the technique of both manufacturers and the operators since that day.

Q You have no fear of reservoir damage by dual completions?

A No, sir.

Q Now, on your dual completions you testified Phillips Petroleum Company had 51 dual completions.

A They operate 51.

Q Are any of those in the West Texas fields?

A Yes, sir.

Q Where are they located?

A Most of them are in the TXL Field.

Q Is that a carbonated crude?

A Sir?

Q Is that a carbonated reservoir?

A Carbonated?

Q Yes, sir.

A I don't know what you mean by that.

Q A little sour.

A Yes, sir.

Q Have you had any experience which would indicate to you that dual completion is not effective in those fields that have a sour crude?

A We have none of those oil-oil wells there being dual pumped. We have several wells in one zone. The lower zone mostly, the Embar-Ellenberger. And we have no well trouble - no more trouble with those than ordinary single completions.

Q But you are having packer trouble?

A No, sir.

Q You have had no packer failures in those wells?

A We have had no packer failures once we get one set right.

Q When is your definition "when you get it set"?

A When we move the rig away.

Q When you move the rig away. Have you ever set a packer at 12,000 feet in those wells?

A No, sir.

Q Can you tell me that in a crooked hole, which necessarily you will have a floating hole, that you can set a packer at 12,000 feet without any danger of packer failure?

A I can't say it positively, but it is being done by you and by us.

Q I think we will put on testimony to refute the effectiveness of the packer. But I want to know your experience now. Have you had any field packer failures there? You said about single completions. Do you set packers in your single completions?

A Not this type of packer; no, sir.

Q You don't have any more because you don't have any in the single completions?

A Don't have --

Q -- any packer problems because you don't have any packers there, do you?

A No, sir.

Q Now, in these dual completions you say you don't have any more? Let's see how much -- how much packer failures you have experienced in your fields in West Texas?

A By packer failure you mean initial failure, or before the well is put on production?

Q I mean after production, while you are producing it, while you have a packer leak.

9b A We have no record in the Bartlesville office of such a failure - such a packer leak - after the well has been put on production.

Q How long have they been on production?

A The oldest one I can remember is probably three or four years.

Q Don't you know the average life of a packer at its best in corrosive crude of that nature is two and a half to three years? Is usually the maximum life of a packer.

A I certainly don't know that.

Q You don't?

A No, sir.

MR. PEACOCK: Mr. Spurrier, we testified here this oil from the Wolfcamp and from the Devonian isn't corrosive. Mr. Washburn has testified that the oil in the Wolfcamp and the Devonian isn't corrosive.

MR. NADOLE: That is his statement. We will prove otherwise.

Q Since you have gotten to that point, I will ask you how many grains of hydrogen sulfide is found in the

Devonian in the Denton field?

A In the gas? It is classified as sweet.

Q I didn't ask that. I asked how many grains you have got in it?

A If it is sweet, it is less than ten.

Q How about the Wolfcamp?

A I would say it is ten or less.

Q Have you ever run any tests for the hydrogen sulfide content of that pool?

A I have seen reports. I have seen refinery production reports on the evaluation of the Denton Devonian and the Denton Wolfcamp.

Q But you have made no actual test of the pool itself?

A No, sir.

Q Have you ever smelled any of it?

A I have on the batteries; yes, sir.

Q Did you smell any sulphur in it?

A No, sir.

Q Smelled as sweet as the growing flowers, did it?

A Yes, sir.

Q Do you have a paraffin in the production?

A Yes, sir; you have paraffin, especially in the Devonian.

Q High?

A It is classed as a paraffin intermediate base crude.

Q That will affect your dual completions, won't it?

A Paraffin is just like packer troubles. They are magnified considerably. If you recognize you have paraffin, it can be handled. There are ways of handling it.

Q Then you recognize packer troubles?

A I was using it for your example.

Q Well, we certainly recognize it. Are you familiar with the Dollarhide Field in West Texas?

A No, sir.

Q You have never made any studies of that production?

A No, sir.

Q Or those dual completions?

A Nothing elaborate.

Q With reference to the Devonian, I think you have testified there is an effective water drive; is that correct?

A Appears to be one.

Q Now, in figuring these figures you gave as to the ultimate recovery, what was your efficiency rate that you used in the Devonian?

A I didn't give figures on recovery of the Devonian, I don't believe.

Q Well, have you made any calculation of the recovery in the Devonian?

A I could get them.

Q Well, you testified that these wells were going to last twenty or thirty years. You ought to have some - I don't want any details - but isn't it true that the efficiency rate used in the Devonian by the engineering committee is approximately 60%?

A I believe that's right.

Q Now, you did give some figures in the Wolfcamp?

A Yes.

Q As to recovery?

A Yes.

Q What efficiency rate did you use there?

A I used it only in a solution gas drive of about 25%.

Q Now, don't you find some evidence of a water drive exists in the Wolfcamp?

A There is indications of one being to the southeast part of the field.

Q You made a statement that there was some water found down there. Are you familiar with the C-115 reports to the effect that those wells in the southeast run from 29% to 75% water?

A Yes, sir.

Q That is some water, isn't it?

A Yes, sir.

Q Then, wouldn't that indicate to you that there was some water drive to the southeast?

A I testified there probably was some water drive.

Q Then would that revise your estimate of the ultimate recovery - would that revise your estimate of the ultimate recovery in the Wolfcamp if a water drive developed rather than a solution gas drive?

A Yes, sir.

Q Then to the extent that the water drive developed and approached the water drive of the Devonian, then your figure of efficiency rate of recovery would be revised upward to a maximum of 60%, wouldn't it, assuming that the water drive developed?

A I don't think the water drive is effective and the fact is pretty apparent.

Q I didn't ask you - You can make your statement as to what you think. Assuming it did develop, then your figure used for ultimate recovery would have to be revised upward toward the 60%, wouldn't it, because that is the efficiency rate used on a water drive field? Is that right?

A It would be increased upward; yes, sir.

Q The effectiveness of water drive is yet to be determined. I will concede that. But now let's go into this recovery that you estimated. In the Wolfcamp Fort No. 1

you estimated a 22-foot effective pay area for recovery; is that right?

A Yes, sir.

Q Now, how did you just figure a 22-foot taken off of the 38 feet that by your own logs would indicate that there are at least 38 feet of all this dolomite you are going to perforate is effective pay sand? Area instead of sand. Excuse me. How did you arrive at 22 feet?

A We had to base that upon cores that had been made in other wells.

Q On a core analysis of these particular wells?

A No; these wells were never cored.

Q Which wells did you use?

A We used the engineering report, Atlantic Dickinson No. 12, I believe it is.

Q Where is that located, Mr. Washburn?

(Off the record.)

A It is Dickinson A-1, No. 1.

Q Where is it located?

A It is one of the early wells that was cored.

(Off the record.)

Q This well is in the northwest of the southwest quarter of Section 1, Township 15 South?

A Yes, sir.

Q When was that well originally brought in?

A I don't have that information.

Q Do you know the accumulative recovery from that well to date?

A No, sir.

Q If I told you according to the engineering report there has been 94,000 barrels produced from that well, would you quarrel with that statement?

A No, sir, I wouldn't.

Q Then the ultimate recovery is going to, if your well performs in the same manner as that well, it will greatly exceed 68,000 barrels, wouldn't it?

A I don't know what its recovery is per acre foot.

Q Well, I thought you used the same recovery data that was shown in their core analysis.

A No, sir. I say we took approximately - based on that well - we took approximately - we assumed two-thirds of the porosity had enough permeability to be productive.

Q Well, what porosity are you figuring on in that two-thirds?

A Approximately 6%.

Q Have you eliminated --

A I am using the micro-log. I beg your pardon. Where the micro-log shows porosity, using approximately two-thirds of that footage.

Q After using that two-thirds, what porosity factor are you cranking into your figures?

A Six percent.

Q Six percent. Then, if you pick the best porosity, the average of the entire area, figuring by the engineering committee as 6%, then if you pick just the best to base your figures on, you ought to increase your porosity, shouldn't you?

A No, sir.

Q Some of the wells have better than 10% porosity, don't they?

A Not to my knowledge.

Q Well, let's see. You know the location of the Magnolia Pope No. 1, or 6? No. 1 in the southwest southeast of Section 35. And No. 6 is in the northwest of the southeast of 26. One to the northeast and one to the southwest of this Fort and Fonzo. If the core date of the Wolfcamp pay of the Magnolia Pope No. 1 and No. 6 indicated an average porosity of 10.5%, would you quarrel with that figure?

A No. 6? Not if your data shows that; no, sir.

Q Well, it looks to me, Mr. Washburn — I mean if you eliminate all your poor areas and take your best to figure your estimated ultimate recovery, that you ought to revise upward your porosity factor, wouldn't you?

A Not necessarily. That is the way I did it.

Q I know that, but we don't agree with your way of figuring.

A If we could assume that full 38 feet of porosity had sufficient permeability to be productive, we would still have a well less than a marginal well. We would never get our money back.

Q We are going to get to that, too. But let's figure with this 25%, your porosity factor of 6%, and figure it on 38 feet. What would be your recovery?

A Will you repeat that, please?

Q Let's assume our factor of - that your accepted factor of 25% efficiency rate of recovery, let's revise the effective pay zone from 22 to 38 feet and apply the factor you applied to the 22 feet, apply them to 38 feet. What would be the resulting figure of ultimate recovery?

A Approximately 136,000.

Q Sir?

A About 136,000.

Q Now, with reference to the economics of dually completing the Fort No. 1 and the Fonzo, is it the position of Phillips that the other operators go ahead and twin their wells, and then on their edge wells that they should be allowed to dually complete those because their edge wells might not pay them as much profit as they would

like to obtain? In other words, here in recent months Magnolia has twinned the north location from the Fonzo. Do you think that -- You think Magnolia is a fairly prudent operator, don't you?

A Yes, sir.

Q You think they came out with any such figures as those and then proceeded to twin that well?

A We never considered any of that. We merely asked for permission to dual ours. If you want to twin yours, that is your privilege.

Q Do you think we would have drilled a well if our figures indicated we wouldn't get back the cost of drilling it?

A No, sir, I don't.

Q No. Now, let's go to this $200,000 cost of these wells. I would like a little breakdown on that, more than what you have stated, that it is just a flat $200,000. On what is that based?

A On six Wolfcamps we have drilled.

Q With Atlantic?

A On our Denton lease.

Q With Atlantic?

A Yes, sir.

Q Is that the figure you and Atlantic settled on?

A That is the cost charge we have on it.

Q Is that the charge you made to Atlantic?

A That is the cost estimate that was approved by Atlantic; yes, sir. I believe that's right.

Q Now, this estimate - we want to know when the dollar changing started, when Atlantic started paying the bill. On what basis did you settle on those six wells?

A I don't know what you are getting at. I don't think I could answer —

Q Yes, I think you do. You divided up and figured up your cost and sent Atlantic a bill for their proportionate share of the cost, didn't you?

A I never looked at the bill we sent Atlantic. I looked at the bill in our office.

10b Q Will you look at the bill you gave Atlantic and furnish us that information as to the actual bill presented Atlantic on those six wells, because your $200,000 figure is in excess of fifty to sixty thousand over the average cost of these wells. I don't know what difficulties you experienced.

A The Denton No. 11 cost $195,000; the Denton No. 14 cost $212,000. Those are the last two we drilled. Rounded out, as I said, approximately $200,000.

Q We are doing a lot of rounding. Let's get down to — You say you based your $200,000 on these six wells.

Now you say you did it on two wells.

A Well, if the Commission requires them, we have the price of the six wells. I used them, and the other ones are a year or so old. I used the last figures, the 11 Denton and the Denton 14.

Q Used the figures on all six or the last two?

A The last two.

Q On the last two. Did you have any mechanical difficulty in completing those two wells?

A None that I know of.

Q Would you be willing to furnish the Commission with the cost on which you and Atlantic settled for these six wells for the Wolfcamp?

A If the Commission so desires, we certainly would.

Q Well, if we desire, would you so furnish it?

A Well, now, you are getting into -- I can't answer that. I don't know what the policy is on letting figures out.

Q Well, you present some figures here to let yourself into dual completion. You ought to let some more figures out to show the basis on which you are asking for it.

A I don't know what this is getting us at, quite frankly.

Q You know what I am getting at. You know $200,000 is high for those wells.

A We think a Wolfcamp well drilled today would cost $200,000. That is my statement.

Q If our figures on Pope No. 8 are far below that figure, then how do you account for the great difference between the cost of your wells -- Just how do you figure the cost of your wells, figure overhead and profit?

A It is cost of equipment, tangible and intangible values, and it does have some lease foremen and salaries in there for a month or two. But it is a minor item.

Q Actual cost of drilling equipment and completing the well?

A Yes, sir.

Q In your statement with reference to the Wolfcamp, you made the statement it was a tight formation. What is your definition of "tight"?

A Permeability of 10 millidarcys or less.

Q Did you take into consideration the vertical fractures in that formation?

A No, sir.

Q They have vertical fractures in the Wolfcamp in the Denton field do they not?

A Yes, sir.

Q That figure can't be calculated, but it would in-

crease the permeability over-all, wouldn't it?

A Yes, sir, to some extent. I still believe you would class it as a tight formation.

Q Now, with reference to that, do you classify the Devonian as a tight formation in the Denton field?

A No, it is intermediate. We can't say it is -- No, I don't know that.

Q Now, on this -- Your experience in packer failures, I think you said -- I don't want to misquote you -- You did refer to dual completions at ten or twelve thousand feet in the Gulf Coast area?

A I never said that; no, sir.

Q Would you estimate that? You made some reference to the Gulf Coast area. What reference did you make?

A To the fact that we had dual oil-oil, dual completions in the Gulf Coast area is about all I said. But they weren't deep.

Q But you wouldn't be apprehensive of dual completions at ten or twelve thousand feet in the Gulf Coast area?

A I am not familiar with the Gulf Coast area. I know it is different from this hard rock country. I can't answer that.

Q Where are you familiar - with what area - the West Texas area?

A Primarily West Texas.

Q The Dollarhide - is it a sweet crude in the Devonian-Silurian over there?

A I don't have that at my fingertips; I don't know.

Q Now, with reference to your testimony that when you go to artificial lift, what bottomhole pressure in the Wolfcamp did you estimate - did you estimate at what point that you will have to go to artificial lift?

A I can't answer that. We know that artificial lift is coming up, maybe in two years, maybe three years, maybe sooner. I understand there are some on the pump now.

Q There are eleven of them, aren't there? The figure of eleven given you as the number of wells on the artificial pump at this date, that would be pretty well in line with your information?

A Yes, sir.

Q Isn't it true that your pressures in the Wolfcamp indicate that most of the wells will go to artificial lift of some kind in not quite a year or two, but in a matter of months?

A I don't think so.

Q What pressure do you calculate they will go to artificial lift? What pressure? What bottomhole pressure?

A 1000 pounds, in the vicinity of 1000 pounds. I had better say I don't know. I don't know.

Q That would be refuted by the fact that they are on pump and the average pressure is about 3200 pounds?

A Yes, sir; that's right. There is eleven on the pump. There is some others flowing at 3200 pounds. So I don't know when the others will go.

11 Q Will the oil capacity of artificial lift be decreased if water is produced in the formation?

A The rates I gave were approximate capacities at near depletion pressure.

Q With no water?

A With no water. Fluid capacities in other words.

Q There will be some water?

A There is a possibility of that; yes.

Q Then that water will reduce the capacity, won't it, the oil capacity there?

A Naturally.

Q Have you made any analysis of water found in the Devonian or Wolfcamp in the Denton field?

A No, sir, I don't — We make a very small amount of water, but it has never been analyzed.

Q There is some gyp or lime deposits there, aren't there?

A There are other fields with gyp. That can be

handled like paraffin; if you recognize you have got gyp, you can take care of it.

Q How can you?

A By down hole treatment or by proper selection of equipment that you are using, the artificial lift you use.

Q All of them have got to have some metal, haven't they?

A Yes.

Q And it is going to have a reaction on that metal, isn't it?

A Well, I wouldn't avoid pumping a well because it had a little gyp.

Q No, I don't advocate your pumping it, but I advocate pumping it in two different holes so that you won't make any communication in different formations in the event you have packer failure. I am not opposing your pumping your wells any way you want to, but I do oppose your pumping them out of the same well bore.

A With Kobe equipment, or hydraulic equipment, I could service that pump much easier than you could do it with rods, or just as easy as a single well.

Q Are you making that statement to this Commission, that you can do a work over job in a dual completion as easy as any single completion?

A I can pull rods on pumps out of the zone that is

being pumped as easy as I could --

Q How about the pressure down in your Devonian? You have got to keep that pressure down, haven't you, to hold that in the formation?

A Well, you are going to choke that off.

Q Choke it off. Okay. I have no further questions.

MR. MADOLE: I would like to reserve the opportunity to cross examine if, as to these packer tools, that I understand they are going to testify about it, if the manufacturers are proposing to testify and don't know what the actual operations of those tools in the field are, because we would like to go into that. But it is premature until such time as the evidence with reference to the tools to be used in the completion of these dual completions.

MR. SPURRIER: Are there any other questions of the witness?

CROSS EXAMINATION BY MR. NESTOR:

MR. NESTOR: My name is E. W. Nestor of Shell Oil Company.

Q There is one point I would like to figure out from your testimony on workovers. If I understood you, you expected to have only one workover possibly during the life of your Wolfcamp wells; is that right?

A I don't believe I made that statement concerning the Wolfcamp. I was talking of the Devonian.

Q There was some statement made -- That is what I mean, the Devonian.

A Yes, sir.

Q Now, when you are going to work over the Devonian, how do you propose to do that?

A Well, the way we would do it today would be to mud it off and squeeze the lower some and perforate.

Q You would have to pull the dual completion equipment out of the hole and put mud over both formations and proceed. Now, in doing that work, don't you figure that an additional risk of damage to the Wolfcamp formation, which you have already specified as tight? Now, you are going introduce mud into that formation. What effect do you suppose that will have on your ultimate recovery?

A It all depends on how clean you get it.

Q Now, you just testified it is tight, and I believe you would normally figure, once you have acidized such a tight formation, one of the things you don't want to do is get any fluids back in there again.

A Yes, sir.

Q So, even though the Wolfcamp formation itself didn't require any work at the time, if it is necessary --

which it probably is — to work over the Devonian formation, then you are going to have to kill the Wolfcamp, and then have to bring it back in, with some possibilities that your Wolfcamp zone won't be as good as it was originally.

A That is a possibility.

Q Are you acquainted with the flowing bottomhole pressure on the west side of the pool, currently? In round figures? Or would you estimate the flowing bottomhole pressure?

A What zone?

Q Wolfcamp.

A About 3200 pounds.

Q On the west side?

A Well, frankly, I can't answer that.

Q That figure is possibly fairly accurate for the east side. But in the west side, in the area where you are proposing to do this work, I am satisfied you will find it averages well under, possibly 2900 pounds or even less. That is all based on the cooperative survey which the Oil & Gas Committee ran in April. They

llb have actually run some pressures since then.

There is another question along that line. Of course, you said you didn't believe you could answer at what bottomhole pressure it would require artificial lift

on the west side. Would you agree, if the wells on the west side are having difficulty and requiring swabbing operations currently at pressures of 24 and 25, would you assume they are getting pretty close to the point where lift would be required?

A Yes, sir.

Q That actually is the case on some of those west side leases. But I think there is a danger that probably the flowing bottomhole pressure of about 2300 pounds will be as low as will sustain the flow on that side.

There is one thing that concerns me too in your comment on the Devonian. I think you mentioned you expected the Devonian would probably flow for at least ten years. Now, did you - or would you state to the Commission you believe your Fort No. 1 will flow for ten years, from the Devonian, that is?

A I think that it will. I will tell them that.

Q Actually, the bottomhole pressures there are about 4400 pounds and you don't know what the critical pressure is there yet. But pressures are dropping and — How much pay does that well have?

A The Fort in the Devonian?

Q Yes.

A Approximately 150 feet; 147 is what I used.

Q That is good. Roughly, what would the average

thickness for the Devonian be in the Denton?

A Around 900 feet or 1000 feet or 1000 feet.

Q No, that is — Just the average for all the wells, including the rim wells, probably be somewhere around 600 pounds maybe. As the water comes in, do you not envision that your Fort 1 well there will make water?

A As it comes in, yes.

Q There is a strong possibility you will have to install artificial lift in that well quite a bit before some of your better wells.

A Yes, sir.

Q Such as the Denton 12 and 13. Just roughly, what do you figure is your average operating net income from a barrel of Wolfcamp oil?

A Approximately, after all costs?

Q All costs.

A Between a dollar twenty-five and a dollar and a half.

Q I wonder — Do you suppose you could outline that for us?

A I don't have that data here. I base that on experiences of payout of other wells in that area.

Q That seems considerably lower than some of the figures we have on that. I wonder if that isn't a bit pessimistic in view in particular of your January price

hike. You still believe it would be roughly that figure?

A That has been my experience in other studies of this nature.

Q Do you suppose you could show the Commission how that figure is arrived at, fairly quickly?

A I don't have the information - the data I need to work with here. My tables, my discount tables, - Let's start out with oil at a dollar fifty-eight plus twenty-five. We take 7/8 of that. That is working interest.

Q Two dollars and fifty-eight cents plus a quarter.

A Yes. Multiply by 7/8, you get a working interest, and we would have about 7½% production tax, or 7.3, I believe it is, to deduct. And then we would have lifting cost, which we would estimate at about $3000 per year per well. Now, then, we have to --we can charge off our intangibles on this first year and we can take depletion allowance and we can take -- we wouldn't have any equipment -- we could depreciate the wellhead equipment.

Q The tangible.

A The tangible part. And after that we would have to figure how our income tax would be at about 52%. Find out what taxable income after that. Then deducting our taxable income from our -- We would multiply by 52% to get our tax, and deduct it from our income, after lifting costs.

Q In other words, you have taken the tax provision

in that? That includes that?

A Yes, sir.

Q Now, there is one other question which concerns me on the west side there where the Wolfcamp pressures are dropping. I believe you testified that the present differential in bottomhole pressures between the Wolfcamp and the Devonian zones is 1700 pounds.

A Approximately.

Q Is that the figure? Actually, the figures on one of the west side leases, and which were taken again from this April survey, from the cooperative survey, showed within just a few pounds of 2000 pounds on two west side wells. One of them is a mile from the Fort and another is less than a mile from the Denton 13, about a half mile.

A Yes.

Q And more or less in a similar stratigraphic position, west flank wells, more or less similar to the flank position of your wells. I thought I would make that point. It does run some higher than 1700 and something, which you would know. Recent pressures indicate it is now over 2100. Since April another 100 pounds of differential has entered the scene. It is quite alarming the differential that is established between the two zones.

A That is bottomhole pressure. It isn't necessarily the differential across the packer.

Q That's right. You could figure roughly 900 pounds as would be a logical figure to assume for the difference in datum.

A Yes.

MR. NESTOR: I believe that is all, Mr. Spurrier.

MR. SPURRIER: Anyone else have a question of Mr. Washburn?

MR. WHITE: I would like to ask one question. I don't believe it has been brought out here very particularly.

How many packer failures have you had on the 51 dual completions after they went on production?

A We had one packer failure in the Embar-Ellenberger field, which was put in - one of the earliest packers we put in - but it was later identified and we corrected it immediately.

MR. WHITE: But that is the only one you know of?

A That is the only one I am aware of, in West Texas, now.

MR. WHITE: That's all.

MR. SELINGER: What depth was the packer?

A Between the Tubbs and the Embar.

MR. NESTOR: There is one further discussion

there on the oil-oil duals in the TXL Field. That is one of the places where you have them in West Texas which you might consider as comparable here. There is one bit of information which might cast, leave, an erroneous impression in someone's mind there. You were questioned as to the length of time the packers had been installed in some of those wells, and I think you stated around three or four years.

A Yes.

MR. NESTOR: Now, I would like for you to clear up for the Commission that that isn't necessarily true for many of those wells in the TXL, is it?

A Our Zeta No. 1 is one of the oldest, approximately three years.

Q Which zone is that?

A It is — I have got it here in my books somewhere. It is the Embar-Ellenberger and the Silurian, I believe.

Q Ellenberger?

A I beg your pardon. Ellenberger is the zone being pumped.

Q And you think the other is the Silurian?

A Yes, sir.

Q And how long has that well been completed as a dual?

A Approximately three years to the best of my knowl-

edge.

Q What part of the structure is that well, do you know offhand?

A No, sir.

Q I believe prior to the very late 1951 that there weren't any Kllenberger-Fusselman duals in any part of the south zone of the TXL structure. Maybe three. Phillips didn't have any. I may be in error. That is one of the points that concerned me I wanted to get cleared up. There were three wells dualed in the south zone but I believe none were Phillips operated. I thought you made most of them there in 1952. '52, I believe you will find most of the dualing was done.

MR. PEACOCK: Is it still your opinion that was three years?

A I can't be positive. I am recalling from memory.

MR. NESTOR: It sounds like most of the dualing occurred there in late '51 or early '52, which would be about a year old. The specific well you mentioned, I am not sure of either.

MR. SPURRIER: Do you want to have your testimony sworn to, Mr. Nestor?

(Laughter.)

MR. NESTOR: I was just asking. He threw out something I thought was erroneous. I may be wrong.

MR. SPURRIER: Does anyone else have a question of Mr. Washburn? If not, the witness may be excused. We will take a ten minute recess.

(Witness excused.)

(Recess.)

MR. PEACOCK: I want to call Mr. C. C. Taylor to the stand, please.

C. C. TAYLOR,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. PEACOCK:

Q Will you state your name, please, sir?

A C. C. Taylor.

Q Your address?

A 1610 Bedford Drive, Midland, Texas.

Q By whom are you employed, Mr. Taylor?

A Baker Oil Tools, Incorporated.

Q How long have you worked for them?

A Thirteen years.

Q In what capacity are you working for them at this time?

A I am district manager of West Texas and New Mexico.

MR. PEACOCK: I should like to qualify this witness to testify concerning Baker dual completion equipment. Is the Commission satisfied with his qualifications to so testify?

MR. SPURRIER: I would judge he is qualified.

Q Does Baker Oil Tools, Incorporated, make equipment used in dual completion of wells, that is, oil-oil completions?

A Yes, sir; we do.

Q What is the equipment that your company makes?

A We manufacture a retainer production packer with accessory equipment for production purposes.

Q What is the purpose, briefly, of this equipment?

A The purpose of this equipment is to provide a means of isolating a single zone or multiple zones within the bore of the casing, or the liner.

Q I see, Mr. Taylor, you have brought along a scale model of your equipment, and I propose now to have you explain and demonstrate to the Commission, briefly, what your equipment is and how it works. Will you do so?

A Yes, sir, I will.

Briefly, this is a Baker retainer production packer, Model 415-D-4.

12b This packer, with its accessory equipment, is to segregate or isolate any zones that may be desirable. The

packer itself consists of a setting sleeve. This is the setting sleeve. It consists of an upper slips, a cone, expanding rings; a lead seal, a sythetic packing element, and your lower slips and a junk pusher and a flapper valve installed.

This packer is made of drillable cast iron material. We can set this packer as the operator desires, either on the electric wire line through the medium of a power setting tool. We can set the packer on tubing, or on a drill pipe; as I say, whichever may be desirable.

When we set the packer, if we set it on tubing or drill pipe through the medium of auxiliary equipment, if on tubing or drill pipe, you pull at approximately thirty to thirty-five thousand pounds pull. To properly set your upper slips and to back off your packing element and expand the expanding gas rings out against the walls of the casing. The lower slips are then set and the upper slips set and your packing element and everything squeezed together in this manner to isolate the zone.

When we set it on the wire line, which is an electric line, the same line you perforate with, we place a powder charge in a pressure chamber, which, as I say, is a medium for collapsing the tool and back off the packing element. In this particular tool the powder

charge burns and discharges its gas and from there on the operation is a hydraulic operation, of course, which we call a pressure E-3 setting assembly.

We have set this packer and we are ready to go back into the casing. And then we use the auxiliary equipment. We have this packer set with your clean bore through it. Your flapper valve is closed in that position to keep pressure from below in the event of pressure from below.

We make this equipment up on the tubing, which consists of the auxiliary packing equipment, what we call tubing seal nipples. They have chevron seals working downward to hold pressure from below. And chevron seals working upward to hold pressure from above.

We have in this particular case a Baker cross-over flow tube, which is this - from here down is the Baker cross-over flow tube, with an inner tube and the outer tube. We have a locater sub that mates with a corresponding set in the top of this packer.

If we go back in the hole with the tubing, to assure you these seals are positioned in the bore of the packer, we can set as much weight down on this packer as is practicable to put down on the tubing. If you want to put 50,000 pounds of weight, it's all right. But if you are in large casing, such as 7-inch, with 2-inch

tubing, you might kink or bend the tubing with that much weight down.

This auxiliary equipment is the combination of Baker Oil Tools, Incorporated, and Otis Equipment Company. You can back in with the tubing, your flapper valve opens, your seals are then positioned in the bore of the packer, and you confirm that you are in the bore of the packer by setting a weight of your tubing down.

I believe from there that Otis will explain their —

MR. PEACOCK: I now propose to have the Otis equipment man testify and then I think cross examination could well be directed to the two of them, because the questions will probably relate to both their equipment.

MR. SPURRIER: Very well.

(Witness excused.)

———o———

DON TAYLOR,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. PEACOCK:

Q State your name, please.

A Don F. Taylor.

Q Your address?

A Dallas, Texas.

Q By whom are you employed?

A Otis Pressure Control, Incorporated.

Q For how long have you worked with them?

A Some thirteen years.

Q In what capacity do you now work for them?

A I am the manager of the Special Services Division for Otis Pressure Control.

MR. PEACOCK: Is the Commission satisfied Mr. Taylor is qualified to speak concerning Otis equipment used in dual completions?

MR. SPURRIER: It is.

Q What is the name of the equipment your company makes for dual completions?

13 A We make several tools for dually completing oil wells. The one in question here is the Otis Type H selective cross-over nipple assembly.

Q What is the purpose of this tool?

A The purpose of this tool is to be used in conjunction with an oil well packer placed above the upper formation for separating and controlling the flow of two zones, and utilizing the tubing casing annulus from that point to produce one zone and the internal bore of the tubing to produce the second zone.

Q Now, you have brought along examples of some of your equipment, have you not?

A Yes, sir.

Q Would you demonstrate those to the Commission at this time?

A I would be glad to do that.

This selective cross-over nipple assembly we have here sets on top of the Baker packer and tubular equipment, and it is run on the tubing string at the time the tubing is run into the hole, not before that. As you see, this item here, this nipple, has no control in it. Normally, in your completing practices your two zones will be commingling while you are running your tubing. There is no way to prevent that unless conditions exist which will overcome this flapper valve area here.

At the time this is landed, I think most of you are familiar with the fact that there must be another packer placed between your formations so that your isolation of your lower zone formation from your upper zone will be complete, and a seal between the casing and the tubing effected so that the lower zone production is directed through the bore of the tubing. At that time, and when the tubing is landed, this condition occurs.

The lower zone is then in the tubing and the upper zone is trying to enter the tubing from between

the two packers. And at that time, if you will glance down here, I think I have some prints here if you would like to show them that —

Q Well, are these the reproductions of what we have there?

A I believe those are faithful reproductions with the extent that they don't show some of the detail of the packer arrangements; but essentially they do.

MR. PEACOCK: We would like to introduce these, than, as Applicant's Exhibit 7.

MR. SPURRIER: Without objection, they will be received.

A Gentlemen, if you will glance at the drawing there - and I think you can look at this exhibit or item on display here and correlate the two—-you will see down here at the bottom of the page a set of ports beneath the Baker packer, where the upper zone - which allow the upper zone to come in through an annular space between the flow tube and the tubing seal nipples. I want to bring that out at this time so that you will fully understand the path of the two fluids up to this point right here where my hands are, which is the lower portion of the Otis cross-over nipple assembly.

The upper zone fluid, then, comes up underneath the seal nipples and on the outside of the inner flow

tube, and up this channel right here.

Beneath the outer case of the nipple assembly, and on up above, are some horizontal ports that will come out in a diagonal direction from the tubing bore. The upper zone can enter the tubing at this point some four to six inches above the horizontal ports coming out from the tubing into the tubing casing annulus.

That condition exists at the time the casing is landed. From this time on, with your normal well completion practice on the surface, the tubing hanger and casing hanger will correspond to raise and control the device at the surface. We can then, either under pressure or no pressure, install by means of a wire line - what we call a wire line operation - the subsurface control, which will then separate the two zones and direct either zone you desire into the tubing casing annulus.

By means of this you will then produce simultaneously both zones; one through the casing and one through the tubing. Production from the casing wing and the production from the tubing out the normal Christmas tree head.

This tool I have in my hand, and shown in the sketch distributed to you, is known as the cross-over choke. The word "choke" is used colloquially in our

business as a sub-surface control which backs off and seals and directs the flow.

This tool operates in this manner: It has a locking device on it, and is dropped into the tubing, at which point it seals in a locking - locking itself - so that in the upper movement of that tool, that tool is locked into place.

13b I am going to ask your indulgence. The packing on this has been intentionally chipped so that we won't have to get up with a hammer and drive it in and out. But if you will visualize that tool is in that position during the productive life of the well, and is then what we called crossed over - the crossed over position then allows the lower zone, coming up the internal bore of the tubing, to impinge on this bottom of this control by means of the bore of the choke being sealed up, and the upper rings sealing the internal bore of the tubing, and the flow of the lower zone. Directed out through these ports.

I think, if you look on your diagram there, you can see the ports. And from that time on, the lower zone in this particular installation is directed up the tubing casing annulus and out the casing wing valve.

The upper part has a somewhat different path; comes up the little annular crevice in the carcass of

the nipple assembly until it hits these ports here. And they are not external. Covered by a steel sheet. The upper zone fluids hit this mandrill. The nozzles go up or down by means of the packing and plug in the choke, and are then directed into the choke bore; and from there on come right up to the surface through the tubing.

If at any time in the productive life of the well you desire for any reason to change that flow, the wonderful advantage this tool performs is the fact that you can then extract this choke and replace it with another, which has the hollow bore through it all the way down, and it changes the set of the packing to a point below these ports. And the lower zone then is forced through the bore of the packing right on up the tubing. And the upper zone fluid is then forced into here. It can no longer go into the bore of the choke. It is then forced out this point here into your tubing casing annulus.

And with this installation now in place here, you have what we call a regular flow condition for a dual completion. In other words, you normally carry the upper zone up the tubing casing and the lower zone through the tubing.

I think that about covers it. The advantages to this tool are that you can work over each zone as you wish, while producing the other, by the simple means of

a wire line operation.

Q I have a couple of more questions I would like to ask both Mr. Charles Taylor and Mr. Don Taylor.

Mr. Charles Taylor, the equipment you have demonstrated and explained to the Commission, could that be used in a 5½-inch casing for an oil-oil dual completion with the producing zones at approximately 9200 feet and 12,000 feet?

A Yes, sir; it can be.

Q Could either of the zones or both zones be pumped with your equipment installed in the casing?

A You can only, with that installation, pump one zone.

Q With this installation?

A You can pump either zone through your tubing, either the upper or lower zone.

Q Yes.

A But to my knowledge, with that particular installation you cannot pump both zones.

Q Do you have equipment, types of installations, with which both zones can be pumped?

A We do not have that equipment. That equipment is available, I understand.

Q What differential and pressure between the upper and lower zones will these packers sustain without

leaking?

A We have tested this particular packer to 9500 pounds per square inch at 350 degrees Fahrenheit temperature.

MR. WHITE: Did it stand the test?

A Sir?

MR. WHITE: Did it stand the test?

A Yes, sir; it stood the test.

Q Now, Mr. Don Taylor, is the equipment which you have demonstrated to us here today the nature and type which could be used in a 5½-inch casing, a dual oil-oil completion with pay zones at 9200 feet and 12,000 feet?

A Yes, sir.

Q Is the type of choke which you have demonstrated the kind which would be used when both zones are flowing?

A Yes, sir.

Q Do you have equipment with which one or both zones could be pumped?

A The present equipment could be adapted to pump one zone through the tubing by means of an appropriate setting nipple and exchanging the appropriate sub-surface choke to throw the desired zone into the tubing, and allow the other zone to be flowed out the casing. By that

means you can pump one zone and flow the other.

Q Does your company have equipment which could be used in an installation where both zones are pumped?

A Yes, sir.

Q And is it used today for that purpose?

A Yes, sir.

Q In oil-oil dual completions?

A Yes, sir.

Q Mr. Charles Taylor, would you repeat, if you have not already — I mean if you have already said so — would you repeat whether or not you would recommend the installation of the packers in a well such as the type I asked you about, approximately - you don't have to say within so many feet — What I want to know is will one packer be placed between the two zones and another packer in the upper pay zone?

14 A Yes, sir. One packer will be beneath the two zones and one above.

Q You mean between the two zones and one above?

A One between the two zones and one above.

Q Does the equipment which you have demonstrated here prevent commingling of the oil produced from two different pay zones when properly installed?

A Yes, sir; it does.

Q What are these?

A Those are the seal nipples. These are the chevron seals.

Q Is that the usual number of seals you would recommend for installation in the type of well of which I spoke to you a while ago?

A We suggest a flow tube that has twice this many seal rings. In other words, we have both to offer for sale; one with double seals, or this particular one with single seals.

Q With a pressure differential of 1700 or 2000 pounds between the two pay zones, what would you recommend on the number of seals there?

A I would recommend two sets of seals. They cross over the flow tube with two sets of seals with a hanger type flow tube.

Q Do your service men assist and advise the operators in the installation of your equipment?

A Yes, sir; our service men assist and advise in the installation.

Q Do they actually do the installation?

A They only assist and advise in the installation.

Q Do your service men, Mr. Don Taylor, assist and advise?

A We do.

Q What do you actually do in the installation?

A If the operator wishes us to, we will assist and advise in the installation.

MR. PEACOCK: No further questions.

MR. SPURRIER: Does anyone have a question of either of the Mr. Taylors?

MR. SELINGER: Yes.

MR. SPURRIER: Mr. Selinger.

BY MR. SELINGER:

Q Mr. Taylor with Baker: How many installations do you have of Baker retainer packers in 5½-inch casing? That is, your whole assembly installed in 5½-inch casing wells. Do you have any?

A We have made in the -- Do you mean this particular hookup?

Q Yes.

A This identical arrangement?

Q Yes.

A The best of my recollection, we have made approximately 45 installations in the past year and a half.

Q Where were they mostly?

A They were in the Goldsmith Field of Ector County; in the Wheeler Field. I believe that is in Winkler County. I'm not sure. Maybe borders on Winkler in Ector. In the Pegasus Field. In the Benadum Field. In Upton County. In

the Pinwell Field in Ector County.

Q That is all 5½-inch casing?

A Well, we have made a number of 5½ --

Q Let's start over. I am asking just about installation in 5½-inch wells, not 7-inch.

A I can't answer the exact number. I don't know the exact number.

Q What I want from you is whether or not you have any installation in 5½-inch casing.

A Yes, sir; we have.

Q Do you know where they are?

A Yes, sir.

Q Just roughly.

A I know a number are in the Pegasus Field.

Q That is 5½-inch casing?

A That is 5½-inch casing; in the Pegasus Field. And in the Wheeler Field they have 5½-inch casing. In the Benadum Field of Upton County they have 5½-inch installations.

Q Do any of those installations of yours go as deep as 12,500?

A Yes, sir.

Q Which one?

A In the Pegasus Field, I believe it is; to the best of my knowledge; 12,800.

Q Now, are you talking about a Baker retainer pro-

duction packer with a special change-over head - is that what you are talking about?

A Yes, sir.

Q And that has been designed to replace the by-pass collar of your regular change-over flow tube? Is that what you are talking about?

A Yes, sir; that's correct.

Q And you say it has been manufactured and used and tested in 5½-inch OD casing wells?

A Yes, sir.

Q Who is R. D. McBrine with your company?

A R. D. McBrine was district manager of West Texas and New Mexico.

Q Would he know whether or not in West Texas the Baker retainer production packer for 5½-inch casing was tested and used in the wells in the West Texas district? Would he know that?

A Yes, sir.

Q Now, your installation you're talking about - with respect to flowing wells, is that correct?

A We install the packers —

Q I am saying you are talking about installations of packers in flowing wells?

A Well, I am talking about the installation of packers.

Q Regardless whether flowing or artificial lift- or pumping?

A Yes, sir.

Q And so far as packers are concerned, it makes no difference which type of production, by what means you secure your production, the packer has nothing to do whether it is flowing or artificial lift or pumping; is that correct?

A No, sir.

Q Well, then, what is this installation you are talking about? Which method of production?

A Well, this particular one in question here is the isolation of two zones. And we are talking about the exact installation here, which is flowing.

Q Now, with respect to your 5½-inch size well, the installation you are talking in West Texas was with respect to flowing?

A To the best of my knowledge, they were flowing.

Q As a matter of fact, all the installations you are talking about in West Texas are confined to flowing conditions, are they not?

(No response.)

Q If you don't know, we will go on. But I am asking whether or not you know if they are confined to flowing conditions.

A I believe at the initial installation they were confined to flowing.

Q Now, if artificial means is to be employed after the initial flowing stage, is there any change in the set-up of those wells for production purposes? From the change over of natural flow to artificial lift.

A We do not make pumping equipment or artificial lift equipment.

Q Then your testimony is confined to the equipment you have with respect to flowing wells; is that correct?

A Yes, sir.

Q Now, Mr. Taylor, I will get to you, with the Otis. Do you want to say something, Mr. Peacock?

MR. PEACOCK: That wasn't the impression I got from the gentleman's testimony.

14b MR. SELINGER: Well, the witness can take care of himself. That's what he said. If he has something else to say, I will be glad to hear it.

A I will be glad to renew it. I am not familiar with it.

MR. PEACOCK: You did testify you don't know what type production methods are used in all those wells, didn't you?

MR. SELINGER: I asked him if he didn't know, to

say so and we would go on. And he said so far as he knew, it was confined to flowing wells.

A Our equipment is confined to flowing wells. This equipment here is confined to flowing wells. The auxiliary equipment would be of someone else's manufacture.

MR. SELINGER: Thank you, Mr. Taylor. That is all — That's what I understood you to say.

Q Now, Mr. Taylor with the Otis.

Your equipment is used with respect to what type of production, whether flowing or artificial lift or pumping?

A This equipment can be used in any type of production you mentioned.

Q Is it used for 5½-inch casing?

A Yes, sir.

Q To what extent have you tested your equipment in 5½-inch casing with respect to depth?

A Oh, we have made so many installations it is hard to recall just exactly how many.

Q I didn't ask how many. I just asked as to the depth.

A We test--let me answer the question this way: We test the cross-over nipple assembly, each one of them, at the time we assemble them in our plant in Dallas, with

hydrostatic head.

Q I believe you misunderstood my question. I am referring with respect to depth only. To what extent has your equipment been used, to what depth?

A It goes to any depth that there is an oil well that has a dual completion in it.

Q Then answer the question correctly, Mr. Taylor. Point out the specific well to the furthest depth you have had your equipment installed.

A I believe Pegasus is a good example of that. I don't recall just how deep it is. I do know we have several dual completions. I don't know whether oil and oil in the Pegasus Field —

Q Let's take that. Is there anything deeper than Pegasus in Texas you know of?

A Yes, sir; there are deeper wells in Texas than Pegasus.

Q That your equipment has been used in in 5½-inch?

A Yes, sir.

Q In which fields? I won't put the wells. Which fields?

A Well, there again I don't believe I am qualified to say which wells in which fields.

Q All right. We will go on. Now, that installation you have there is for flowing, did you say?

A No, sir; I said it was adapted and could be adapted to any kind of production that would carry the flow through that nipple assembly.

Q Now, what, in addition to that equipment, can you tell this Commission is necessary for artificial lift from one or two zones?

A Well, in the Otis equipment there is nothing that we furnish in this setup that is required additionally. There are manufacturers, other manufacturers' equipment, that can be placed in your tubing string and other types of artificial lift that can be placed on the tubing and on the surface to produce an oil well.

Q In addition to the Baker people and the Otis people, it is necessary for other equipment people to come in and give the Commission the complete picture?

A No, sir; it is the standard pumping equipment, standard lifting equipment. If you prefer to define gas list as artificial lift --

Q That instrument is prepared for gas lifting purposes?

A It can be adapted to it.

Q Is it right now adapted to it?

A No, sir.

Q What else do you have to use with it?

A You have to use additional equipment with it.

This machine, as you call it, right here, directs the flow of the fluids of each zone.

Q What other equipment do you have to put in that?

A You must put on there, if going to gas lift, put on the appropriate gas lift equipment.

Q Who manufactures that equipment?

A There are several manufacturers of that. Kamco manufactures some of it.

Q Let's stop at Kamco. Do you know whether or not the Kamco people recommend the use of their equipment for 5½-inch casing at a depth of 12,000 feet?

A I am not prepared to say.

Q You don't know?

A No.

Q Those people are located in Houston, are they not?

A Their field offices are all over.

Q Their main office is in Houston?

A I don't know, frankly.

Q In addition to the Kamco people, who else?

A Oh, I will refer you to the composite catalog.

(Laughter.)

Q If you don't know there are other people.

(Laughter.)

A I don't recall anyone in particular that comes

in mind.

Q Here is a chance to give other people some free advertising.

MR. SPURRIER: Strike that.

Q Now, with respect to pumping, what other devices are necessary for pumping a well with the adaptability of your equipment there?

A Oh, if you would envision pumping that well from the specified depth, you would simply add a setting nipple at the time the pump was on the - with certain specifications it would be full opening so that we could get our wire line tools to this nipple assembly.

Q You have to run through the macaroni string inside the casing and tubing?

A You can but it isn't necessary.

Q You can pump these wells through this instrument you have there?

A With a rod string you can pump that tubing with no additional tubing equipment except with a setting nipple and the rod string and the pump and the surface equipment.

Q For both zones?

A No.

Q What do you have to do for both zones?

A For both zones we manufacture a two-zone pump.

Q Yes.

A You must pull out all this equipment.

Q Yes.

15 A You must take out the top packer, or you may adapt the setting nipple for the two-zone pump to set at some point above this upper packer and take production from both zones as you will from whatever elevation you desire.

Q Now, Mr. Taylor, from what depth have you utilized the Otis two-zone pump?

A I believe we have an installation now at an average depth of about 8000 feet. I say an average depth. The lower zone is somewhat lower and the upper zone is somewhat - pumped from somewhat higher. If you got the depths and ran them both together, it would come our right close to 8000 feet.

Q Is your instrument restricted as to the maximum ability of fluid?

A The two-zone pump?

Q Yes.

A It is restricted only by the mechanical lifting devices attached at the surface.

Q And naturally within the 5½-inch casing there is more restriction than within a 7-inch casing; is that

correct?

A Let's put it this way. If the intake of the pumps can be placed opposite or near the perforations in the casing, then we can take as much oil as one - either of the zones will give up - or your surface equipment will allow you to pump - move the plunger of our pumps.

Q Will you go over that explanation again?

(Laughter.)

Q I don't see how it can be right, but I may be a little dense.

A You may have equipment which will exceed the capacity of the well to produce oil, or oil and water, or oil and gas.

Q Yes.

A In that case you would definitely pump off. Your pumps would be operating inefficiently through no fault of their own.

Q Yes.

A Simply moving a greater length or capacity than the zones have a capacity to give up.

Q You mean if the Wolfcamp and the Denton field was capable of producing 1000 barrels and the Devonian capable of producing 1000 barrels, you could produce one thousand barrels from each horizon?

A If you had the proper rod string and surface equip-

ment to do it with.

Q Could you do it in 5½-inch casing?

A Not 1000 barrels.

Q How much could you produce, total fluid? You know the mathematical calculations as to the maximum volume of the equipment.

A Yes.

Q Now, with this installation, your 5½-inch casing, maximum, and 2½ or 1½ and 1¼, now, what would be the maximum fluid that could be produced?

A Well, that is a question that is eliminated even when you calculate it. It isn't a question of how much we can produce so much as it is a question of satisfying the producer of an allowable, and the ability of the oil zone to give it up. In other words, we have pumps in the ground now that are not producing the proper amount of fluid in that the surface equipment has not been redesigned or reinstalled, of whatever it is, to increase the length of the stroke necessary to give the oil to satisfy the deeper allowable. In other words, the operator is taking what he can get with his surface equipment at the time the pumps are put in. If you have a long enough stroke and you can get that stroke and the oil zone has the capacity to follow that plunger up to the full length of its stroke — Do you follow me?

Q Yes, I follow you. Go ahead.

A Then you can take that amount of production with a certain pump efficiently.

Q Suppose, as has been testified by Mr. Washburn of Phillips, the Wolfcamp in the particular well is a very uneconomic well, very small capacity well, do you think your instrument there could successfully operate in an instance where the Wolfcamp is a low producing capacity and the Devonian was a top allowable well?

A I think that we could bring the equipment to bear that would satisfy the operation.

Q Now, I want to ask you, Mr. Taylor, with respect to the total recovery of oil. Presumably a well has all the installations. Now, you can take it in three classifications, flowing, gas lifting and pumping of both horizons. Now, your well on 5½-inch casing, having the equipment of both Baker and Otis and others in the matter of flowing, would you recover more oil by a single completion rather than a dual completion under flowing conditions?

MR. PEACOCK: Objection. I don't believe the gentleman has qualified himself to answer that.

MR. SPURRIER: Does the witness wish to answer?

A I don't believe I am qualified to answer that. We manufacture the equipment.

Q Are you an engineer, Mr. Taylor?

A May I finish?

Q Yes.

A And we have it for sale for those who want to use it. We will work with those that desire to use that. And if in our estimation it isn't a feasible application, we will so recommend. The mechanics of your depletions, we have never gone into.

15b Q Mr. Taylor, are you an engineer by profession?

A Yes, sir.

Q Have you made any study of oil recoveries brought about by installation of your equipment?

A No, sir. That is up to the oil companies and I don't believe we have ever asked them for that information.

Q I believe you, in answer to a question from Mr. Peacock, said a number of instances the producer-operator goes to you for advice as to the installation of packer equipment suited to his particular purpose.

A Yes, sir; he goes to us with the idea he has in mind how much money he wants to spend.

Q Suppose I am Operator A and I come to you for equipment for a well in the Denton Pool on 5½-inch casing. Would you recommend I utilize such an installation under dual completion practices under 9500 and 12,000 feet, or recommend I drill a single well for such a production?

A We make no recommendations of that kind. We recom-

mend only as to the equipment we have available.

Q As an engineer, what would your recommendation be?

MR. PEACOCK: Mr. Taylor isn't qualified to answer that. I object.

A I don't want to answer that. I'm not qualified on that.

MR. SELINGER: He said he didn't want to answer it. It is all right with me.

MR. SPURRIER: Let's take a ten minute recess.

(Recess.)

.....

MR. SPURRIER: Mr. Selinger.

MR. SELINGER: I want to ask Mr. Taylor of Baker - -

Q In this proposed installation of packers at 9500 and 12,500 feet, where would you set the two packers? About what approximate depth?

A That would be entirely up to the operator.

Q Do you have any recommendation where that should be?

A No, sir.

Q Have you looked at the Phillips exhibit as to the depth they state where they are going to put it?

A Well, as far as we would be concerned, that would be entirely up to - -

Q. What is the depth indicated on that exhibit?

A 9150 on the upper packer and 9250 on the lower packer -- No; wait a minute. 12,215 on the lower packer and 9,150 on the upper packer.

Q Now, if the lower zone fails to produce, how would that oil get up that 3000-foot string?

A If the lower zone failed to produce?

Q Yes, sir.

A I suppose they would artificially lift the zone if the lower zone failed to produce.

Q I mean if the lower zone quit flowing. I will put it that way. If the lower zone quit flowing, how would that oil get up the 3000-foot separation between the upper packer and the lower packer?

A You could confine the lower zone to your tubing or your annulus, either way you desired to.

Q Suppose you have to pump it?

A I don't know about pumping it.

MR. SELINGER: That's all.

MR. MADOLE: I want to ask one question or two here.

Q Mr. Charley Taylor, does your jurisdiction of your district extend over into the Dollarhide Field of West Texas?

A Yes, sir, it does.

Q. Have you assisted and advised in any other dual completions of Magnolia wells in that area?

A Yes, sir; we have run our packers in the Dollarhide.

Q Are you familiar with how many wells you have dually completed for Magnolia in that field?

A No, sir; I'm not familiar with the number.

Q Isn't it approximately twelve wells?

A I couldn't say; I couldn't say.

Q Are you familiar with the packer failures on those dually completed wells?

A No, sir.

Q You haven't been called out for repair work or advice on the repair?

A I don't know those particular wells and I am not familiar enough to say if we were called out on those wells or not.

Q But they have had packer failures in those wells, haven't they?

A I couldn't say they were packer failures. I don't know if they were packer failures or communication behind the pipe or between — by the cement job — or tubing failures.

Q But you did have communication, didn't you?

A Yes, sir; I believe that's correct.

Q Now, with reference to these packers, what do you state is the average life of one of these packers in a hole, assuming comparable conditions we are talking about as represented by the Benton Field?

A I don't know the average life. I don't know whe-

ther packers — I have been back in West Texas — I know of packers that have been in wells since 1947, I believe. I do not know exactly what the life of the packer will be.

Q Those are your good jobs. Let's talk about some of the bad jobs. What is the estimated life in some of those?

A Actually, I believe the life of the packer will be as long as the life of the well equipment, your tubing equipment, for instance.

Q Do you all have any written guarantee of that?

A No, sir; I sure wouldn't have. No, sir.

Q I would like to present you a few bills if you do.

Do you, Mr. Don Taylor? Are you familiar with the failures in the Dollarhide Field of dual completions?

A No, sir.

Q Have you supervised, or advised - whatever you do - with reference to those completions?

A No, sir.

Q You have never had any experience in the Dollarhide Field?

A No, sir, I haven't.

Q You are aware some of your equipment is installed there?

A I am aware of the fact that there is some of our equipment in the field.

Q Does your company have a written guarantee?

A No, sir. We guarantee against defects in workmanship and material on the surface. We do everything to assist you once it goes into the ground.

Q Once it goes into the ground, do you help pay for the cost of it where it won't work?

A No, sir.

Q Have you had any experience in the Shafter Lake area?

A A little.

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Q Are you acquainted with any equipment failures or packer failures due to dual completion wells in that field?

A Yes, I am acquainted to this extent: where we have used our equipment to dually pump in the Shafter Lake.

Q Is this by pump or by artificial lift?

A By pump.

MR. MADOLE: That's all.

MR. SPURRIER: Does anyone else have a question of either of the Mr. Taylors?

MR. PEACOCK: There is one other question I think Mr. Charles Taylor might have had an opportunity - or did not fully explain as to his equipment on these pumping operations. And I would like to ask you this. Is this the type of equipment that you have demonstrated to us here, the type that would be used in a pumping operation?

A Yes, sir.

Q If the well were pumped?

A Yes, sir.

Q Either one or both zones.

MR. SELINGER: I would like to object to the question because on interrogation of Mr. Taylor for Baker, he said he knew nothing about the pumping part of it. I dropped any cross examination about pumping. If you are taking it up, I will interrogate further.

MR. PEACOCK: I asked if this was the type of equipment that would be used. Is there any change in this equipment necessary - if the well ceased flowing of its own accord, would they have to come to you and buy something else when they install the pump?

A No, sir, they wouldn't

MR. SELINGER: Mr. Taylor, with respect to that, if both zones had to be produced by pump, would there be any additional equipment necessary in the well? I asked you a while ago, and if you are going to answer Mr. Peacock that way, I will ask about two zones --

MR. PEACOCK: I asked if they would have to come to him and buy any more equipment and he said no.

MR. SELINGER: That is the point. This gentleman doesn't handle that equipment. He told me he had nothing to do with the pumping part of it.

A That's right.

MR. SELINGER: Can you answer the question, Mr. Taylor, if both zones have to be pumped what additional equipment is necessary in addition to the packers you have?

A I don't know what additional equipment is necessary.

Q How do you know additional equipment is necessary?

A There isn't any of our equipment required additional.

Q You mean insofar as the packers furnished by Baker are concerned, it requires - it makes no difference whether pumper or flowing or artificial lift?

A No, sir.

MR. PEACOCK: That is all we were trying to show, I think.

MR. SELINGER: I will take it one step further.

Q Is it possible to pump both zones without the use of any of the Baker equipment?

A I am sure it is.

MR. MACEY: You mean any more packer equipment?

MR. SELINGER: No; any Baker equipment. The witness just said yes, he felt sure it was.

MR. SPURRIER: Anyone else? Do you have any further witnesses?

MR. PEACOCK: That is all we have.

MR. MADOLE: We have one witness, if the Commission please.

MR. SPURRIER: If there is no further questions of the Taylors, we will excuse them.

(Witnesses excused.)

.....

EARL G. THURMAN,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. MADOLE:

Q State your name, please.

A Earl G. Thurman.

Q Are you a graduate engineer?

A Yes, sir.

Q What school did you attend?

A Oklahoma University.

Q What degree do you hold?

A B.S. in Petroleum Engineering.

Q When were you graduated?

A January 1950.

Q Since that time by whom have you been employed?

A Magnolia Petroleum Company.

Q At what location have you been stationed?

A At Kermit, Texas.

Q In your capacity as petroleum engineer with Magnolia, have you had experience in the Dollarhide Field?

A Yes, sir.

MR. MADOLE: I didn't ask the Commission. Will you accept his qualifications?

MR. SPURRIER: We will.

Q Where is the Dollarhide Field located?

A In the southwestern part of Andrews County, Texas.

Q Magnolia has dually completed wells in that field?

A Yes, sir.

Q Also, we might add, for the record, it is in New Mexico also. We have never been furtunate enough to produce oil therefrom.

From what formations are the wells completed?

A Magnolia dual well completions are completed in the Devonian and Silurian formations.

Q What is the approximate depth of the two formations?

A The Devonian is an average depth of about 7500 feet and the Silurian 8300 feet.

Q What type drive is present in the field?

A The Devonian formation is a depletion type drive and the Silurian is a moderately strong water drive.

Q Are you familiar with the hydrogen sulfide content of these two formations?

A There have been numerous tests run in those two formations. The approximate hydrogen sulfide content of

the Devonian gas is about 600 grains per hundred cubic feet, and the Silurian is about 1000 to 1200 grains per hundred cubic feet.

Q How many dual completions does Magnolia have in the field?

A Twelve.

Q What type of equipment is utilized in that operation?

A Baker and Otis.

Q Could you -- In your last three years of experience -- Could you outline to the Commission the existence of any cases of communication between zones as a result of packer failure or otherwise, in the field?

A Yes. Dual completions were first started in the latter part of 1947, and really began in earnest in 1948. And Magnolia has completed twelve.

Since that time, we have experienced twelve packer leaks. I won't say packer leaks, communications, on seven wells. Five of the original twelve wells have never had communication. Of the twelve communications, it is my opinion nine of them have been the result of packer element failures and two side-door choke failures and one hole in the tubing.

Q Has that, in your opinion, caused damage to the reservoir?

16b A Well, we have made a thorough investigation to determine whether that has occurred. And we believe in two

instances we can attribute communication between the Devonian and the Silurian being a direct result of damage to the Silurian reservoir.

Q Are you through?

A I was going to add a little more and explain how it was determined.

We had two top allowable wells dually completed and flowing when communication occurred. And unfortunately it isn't always possible to detect communication at the instant it occurs. Maybe a month or several months. But before communication was detected, the wells began to pump water. We worked over and corrected communication. And after the workover, the water percentage increased to about as high as 86% on the two wells, and our production decreased almost half. And we had to install lifting equipment.

It is my opinion the communication resulting in the Silurian formation, which is the strong water drive, charging the depletion Devonian reservoir to such an extent that water was coned into the Silurian formation prematurely, which, in my opinion, has shortened the life of two of those wells.

Q Do you agree with Mr. Washburn's statement it is easy to detect failures or other instances of communication between two formations?

A No; not entirely. I have run a number of packer

leakage tests and on occasion it is very easy to detect a leak. On other occasions it has been very difficult. We have resorted to the bottomhole pressure bomb on some occasions, and have not been able to detect communication, yet we knew we had communication by the gas-oil ratio and the bottomhole pressure performance.

In one case the Silurian charged the Devonian zone reservoir pressure about 500 pounds. That was indication enough we had communication between the Devonian zone and the Silurian, for the Devonian zone was charged to such an extent you could determine from surface equipment or the bottomhole pressure bomb test.

Q Are workovers of this nature difficult?

A We have found workovers at Dollarhide to be difficult and costly and hazardous too. It is necessary, since the Silurian zone is the higher pressure zone, - that wasn't brought out, but it is quite a bit higher pressure than the Devonian - it is necessary to mud up and use water to kill it. Whenever you do this, the upper pressure zone acts as such zone and takes mud and water. And when you put the well back on production, it has been our experience two or three months swabbing and fooling around is required to get back in production.

Q I haven't brought out from you the pressures, the pressure differential. Will you outline for us that informa-

tion?

A On November 1st, 1952, the latest pressure figures I have, the Devonian reservoir had a pressure of 1970 pounds. The Silurian reservoir at that same date had a pressure of 3151 pounds, approximately. That is an absolute pressure differential of about 1181 pounds bottomhole pressure.

So acting is an oil column of about the third gradient of about 940 pounds across the packer.

Q Substantially less than in the - than is the differential in the Denton Field?

A Yes, sir.

Q Does Magnolia have any dual wells artificially lifting in the Dollarhide Field?

A Yes; we have five dual gas lift installations.

Q Has there been any problems with that artificial lifting equipment?

A Unfortunately there is a problem. And we have had some specific problems. We have used gas lift entirely to lift both zones of the dual wells. Since the Silurian zone in the wells in which we have dual gas lift equipment produces water, we have had a particularly harrassing problem of scale formation forming in our tubing and gas lift valve. And this has not only reduced the amount of production we have been able to lift because of the decrease in the effective tubing area size, but has also resulted in

having to pull the well on several occasions, increasing workover costs. We have not been able to handle the volume of oil from our dual gas lift installations we had hoped to do initially.

MR. MADOLE: I have no further questions.

.....

CROSS EXAMINATION

BY MR. PEACOCK:

Q Mr. Thurman, is the type of packer installed in the wells in the Dollarhide Field the same type as has been demonstrated here?

A Yes, sir.

Q Were you present at the installation of these packers?

A Some of them.

Q At what time have these wells been dually completed, -- You mentioned '47 and '48 -- all twelve completed then?

A They were completed over the interval from late 1947 to late 1951.

Q Did you say there were twelve of these?

A Yes, sir.

MR. MADOLE: Twelve failures in seven wells. Not all twelve wells.

Q Oh, Well, you did, then, have packer failures in

not all twelve?

A Yes, sir.

Q But you did in seven of the wells?

A Yes, sir; that's right.

Q When did the first of these failures occur?

A About the middle of 1948.

Q Why did Magnolia continue installing them?

A We had -- That was really before my time. I don't believe I could answer that question.

Q Have they installed any since your time?

A No; I don't believe they have.

Q Then, you are not actually --

A I mean drilled the wells. I mean actually drilled the wells since my time. That is what I mean by that.

Q Has your experience been limited to this one field?

A Not entirely. I have had some experience in the Pegasus Field.

Q About how much?

A About three months.

Q Is Magnolia presently dually completing any wells in the Pegasus?

A Yes, sir.

Q In the light of their experience in the Dollarhide Field, with all these packer failures, why do you think they continue to install and dually complete these wells?

A It wasn't the recommendation of the engineering department, and that is all I could say.

(Laughter.)

Q You say it was or it wasn't?

A It wasn't.

17

Q Are you familiar with any of the Magnolia operations at places other than the Dollarhide and Pegasus?

A Not personally.

Q Does your company to your knowledge have any policy against oil-oil dual completions?

A No; to my knowledge they don't.

Q Does it have any oil-oil-dual completions?

A Yes.

Q Do you know where?

A Dollarhide, Pegasus; the only ones I am acquainted with. I understand we have some in South Texas.

Q Do you have communication between the two zones in the Dollarhide, the one in particular you spoke of you had the great difficulty in locating? Could that have been communication around the outside of the casing?

A No, sir.

Q Have you had any experience with communication on the outside of the casing?

A No, sir; not to my knowledge.

Q Is that well still leaking?

A No, sir.

Q Did you get it fixed?

A Yes, sir.

Q It wasn't impossible, was it, then?

A No, sir.

Q Mr. Thurman, are you aware of Magnolia's having obtained a special order from the Railroad Commission of Texas on February 26th, 1951, granting them permission to dually complete the Lux No. 6 well in the East Abell-Waddell and Abell-Silurian-Montoya Fields in Pecos County, Texas?

A No, sir.

Q Are you aware of the fact that your company, Magnolia, on March the 12th, 1951, obtained a special order from the Railroad Commission of Texas, granting it permission to dually complete its Russel No. 7 well in the Falfurrias Field in Jim Wells County, Texas?

A No, sir.

Q Are you aware your company, Magnolia Petroleum Company, on November 13th, 1951; August 4th, 1952; February 25th, 1952; August 2nd, 1951; October 13th, 1952 --

MR. MADOLE: Are these all oil-oil completions?

MR. PEACOCK: No, sir; all dual completions.

MR. MADOLE: That is what I thought.

Q October 8th, 1951; March 23rd, 1953; and August 4th, 1952, obtained special orders from the Railroad Com-

mission of the State of Texas, authorizing it to dually complete wells?

A No, sir.

MR. PEACOCK: That is all we have, Mr. Spurrier.

.....

REDIRECT EXAMINATION

BY MR. MADOLE:

Q Just one question. Did I understand those are oil-oil completions?

MR. PEACOCK: Not all of them. You want to know which ones are?

MR. WHITE: There has been no evidence introduced there have been any so far.

MR. MADOLE: The man said he didn't know anything about them. I think they are gas-oil completions. I think we will skip it and go on with the witness.

MR. PEACOCK: If you want the information, we have it here.

MR. MADOLE: I don't care.

MR. SPURRIER: I don't care.

Q Mr. Thurman, there was reference to dual completions in the Pegasus Field. We have only one dual completion there; is that correct?

A To the best of my knowledge that is correct; yes, sir.

Q Are you familiar with the fact that the direct offset to that dual completed well is a dually completed well?

A No, sir.

Q You are not familiar with the fact that we protested that application?

MR. PEACOCK: Objection.

A I am familiar with the fact that we protested it; yes, sir.

Q Are you familiar with the fact that we protested the application for dual completion as a diagonal offset to that well prior to the time we drilled it?

A I don't know on that.

Q This is the third well drilled in the Pegasus Field on dual completion, isn't it?

MR. PEACOCK: Mr. Spurrier --

A I believe that's correct.

(Off the record.)

MR. MADOLE: I have no further questions.

MR. SPURRIER: Does anyone have a further question of Mr. Thurman? If not, the witness may be excused.

(Witness excused.)

MR. SPURRIER: Is there any further comment in this case?

MR. SELLINGAR: I would like to make a statement,

if statements are in order, as to our position for Skelly Oil Company.

We don't have a fixed policy of opposing dual completions as such. However, we don't look with much favor on such completions. We originally opposed Gulf's application in Cases 92, 93 and 94, as some of the members of the Commission may well know. We did it on the grounds that all the equipment had to be under the most ideal conditions in order for it to function 100%.

Now, in my attempted cross examination I attempted to show the Commission in a 5½-inch casing well you had to put in all this equipment. Now, the applicant brought the Otis and Baker people, and we found out there was additional equipment that had to be put in, depending upon the stage of the development. You have not only this equipment, but have two macaroni strings that had to be in there. And it became evident with all that equipment in a 5½-inch hole you just weren't going to recover that oil through that well as compared with a single completion from the Wolfcamp.

As to the Otis and Baker people, we believe their equipment is good and will continue to buy it, and we think they have good equipment. But we question the accuracy of their equipment at depths of 12,500 feet. That is not saying five years from now we won't accept it, or

two years hence. We will accept the equipment just like the oil industry generally will accept all progressive equipment.

And I think in this case in the Denton Field that when you take into consideration a well can be drilled to the Wolfcamp and a well can be drilled to the Devonian, and from Phillips' own testimony they failed to show economically they cannot drill separate wells to each of the formations. And for that reason and that reason alone we think they should be denied their application for dual completions in the Denton Pool.

MR. MADOLE: I think Magnolia's position in this case is clear. The only observation I would like to make, without getting into a further argument, is the economics as testified to by Mr. Washburn as to the cost of these wells. On the testimony of Mr. Selinger and as assessed by Mr. Washburn, it was brought out that the taxes on this recovered oil, the income tax, is deducted. Well, if that is true, then as you all know, anybody drilling oil wells to save dollars, you apply the saving rather to the $200,000. you won't have but a $98,000 cost in your well. If you put it on one side, you ought to take it off the other. 17b

For that reason, I don't think the economics of this dual completion have been justified.

MR. SPURRIER: Anyone else before Mr. Peacock sums

this up.

MR. NESTOR: I have a statement for the Shell Oil Company in Cases 556 to 559, inclusive, and I will have a copy for the court reporter.

The Oil Conservation Commission of the State of New Mexico has previously stated that it has yet to be convinced of the soundness of oil-oil dual or multiple completions as a general practice in New Mexico and has denied all previous requests for such completions. Most recent examples were Order Number R-78 in Case Number 274, Order Number R-79 in Case Number 275 and Order Number R-233 in Case Number 426. It is Shell's understanding that the principles heretofore controlling the Commission's action with reference to oil-oil dual or multiple completions have been (1) that such completions do not assist it in the performance of its duty of conservation of oil and gas and the protection of correlative rights except in the instance where one of the affected pools will not justify development on its own merit, and (2) that such completions are more apt to result in waste and violation of correlative rights than ordinary completions in the following respects:

1. Oil-Oil dual completion often results in the abandonment of one or both zones at a time when there is a reserve therein that would be produced under normal single zone completions. This is because workovers of dual comple-

tions are more expensive than workovers of ordinary completions and will on the average occur at least twice as often, and risk of damage to each reservoir occurs whenever a workover occurs though the occasion therefor may have involved only one of them.

2. Artificial lift in dual completions where production from both horizons must be lifted simultaneously is not as efficient or as practical as in ordinary completions. It seems probably that both the Devonian and Wolfcamp zones at Denton will require artificial lift at the same time. Recent data indicate that eleven Denton Wolfcamp wells are now on artificial lift and that artificial lift installations are pending in at least eight additional wells. This total figure of nineteen wells represents 37 per cent of the 51 field wells.

3. Annular flow is less efficient than flow through tubing and consequently waste of reservoir energy occurs when an oil zone is flowed through the annulus.

4. The danger of communication of reservoir fluids from one zone to another which exists in any well is greatly increased in a dually completed well. This is true because in a dual completion both reservoirs are opened into a single well bore and separated only by a packer which is subject to deterioration with age and exposure to the reservoir fluids.

5. The Oil Conservation Commission of the State of

New Mexico is without sufficient engineers and technical employees to act as a policing group in the checking of packer tests and in the preventing of damage resulting from careless dual completion operations.

It is Shell's opinion that such principles are sound and should continue to be the basis for action by this Commission with reference to requests for oil-oil dual completions. Shell Oil Company therefore respectfully requests that the Commission deny the applications of the Phillips Petroleum Company in Case Numbers 556, 557, 558 and 559, and this even though Shell Oil Company is a part owner with Phillips Petroleum Company in the Fort 1 and Fonzo 1 wells involved in Cases Numbered 556 and 557.

MR. SPURRIER: Anyone else?

MR. JOHNSON: J. P. Johnson with the Atlantic Refining Company.

The Atlantic Refining Company concurs with the Phillips Petroleum Company in their application to effect four dual oil-oil completions in the Denton Field. Atlantic has 50% interest in two of the wells in this application; namely, Phillips' Denton 12 and 13 wells now completed in the Devonian reservoir. In addition to interest in these two wells, Atlantic is owner and operator of 22 wells in the field, and has an interest in 32 wells operated by other companies.

Dual oil-oil completions between the Devonian and Wolfcamp pools are recommended from the standpoint of mechanical feasibility. Atlantic has had experience with numerous dual completion operations and found them to be mechanically and economically feasible.

Atlantic is of the opinion that the paramount consideration here is whether the production can be separated effectively, and the evidence presented on behalf of Phillips Petroleum Company and our past experience indicates it can be done. It is believed proper maintenance and separation of production can be insured by the Commission by appropriate rules and regulations calling for periodic checks to be performed by the operator.

MR. SPURRIER: Anyone else?

MR. CHRISTIE: R. S. Christie of Amerada.

I just wanted to note our position which we have stated before.

While we have no direct interest in these cases, we are still opposed to oil-oil dual completions as a general principle.

MR. SPURRIER: Anyone else?

MR. SPELLMAN: B. K. Spellman for the Ohio Oil Company.

The Ohio is opposed to the granting of Phillips' application for dual oil-oil completions in the Denton Field.

We do not believe the reservoirs are the type which would justify dual completions, and therefore it would be better conservation practice to continue single completions in each reservoir.

MR. SPURRIER: Anyone else? Mr. Peacock.

MR. PEACOCK: To add to what the gentleman from Atlantic so well stated, I would like to say this: First of all, Shell's interest in these two wells he mentioned is one plus per cent. It is less than 2%.

(Laughter.)

MR. PEACOCK: We believe that we have presented testimony in evidence to this Commission which proves that dual completion of wells in the Fonzo, Fort and Denton 12 and 13 wells is feasible and practicable. Every company here that has opposed us has dually completed wells. And although they are not here in New Mexico in oil-oil, most of them have oil-oil completions outside of the State of New Mexico.

The equipment which we demonstrated to the Commission is of the type that the Commission has approved for use in dual completions in gas-oil production in this state. And it is our position that this type of equipment will be as effective in preventing commingling and communication in an oil-oil dual completion as it is in a gas-oil dual completion.

Now, we have this further argument applying to the

Fort and Fonzo wells, which I admit doesn't apply to the Denton No. 12 and 13. We could drill twin wells there and pay them out, but could not do so in the Fort and Fonzo No. 1. The Fort will not pay back drilling costs - the Fonzo will not pay back drilling costs. The Fort, we will break even. That is according to the estimates of our engineers. That is the way we determine whether we will or will not drill wells. The same as every company determines the matter.

The Fonzo and Fort won't be drilled and it will result in this, that the oil will lie there in the Wolfcamp formation and it won't be produced under these two 40-acre units. The royalty owners will lose their royalty. I don't believe any of them could maintain an action against us successfully for failure to drill wells to the Wolfcamp formation in either the Fonzo or Fort 40-acre tracts. They would have to prove that a reasonably prudent operator would drill such a well, and no court in this state will hold a reasonably prudent operator will drill a well where he will lose money or where he will just exactly make back what he spends.

Only one other item here I would like to bring to the attention of the Commission. There are no oil-oil-dual completions in this state. The Commission has had, under its powers, has had the opportunity to study these oil-oil

dual completions, and it has not determined they are not feasible. And it has continued to permit completions, dual completions for gas-oil production. Now, if there were an oil-oil dual completion available for study to this Commission, it could, as a result of its study and as a result of the information which would be available to it, which is not available to it at this time, - those oil-oil completions lie outside this jurisdiction - it would be in a better position to regulate the production of oil from two zones out of the same hole.

Now, I think that all the proponents and opponents of these applications have agreed in the past few years there have been very - at least some improvement - in the equipment for dual completions. Now, Mr. Selinger said his company might in two years change its mind on this dual completion --

MR. SELINGER: Or in five years.

MR. PEACOCK: Or in five years. That is a recognition of the fact that this type of equipment is being improved.

MR. WHITE: But this exhibit is dated 1951; 5-24-51.

MR. SPURRIER: That is the Otis equipment.

18 MR. PEACOCK: Well, Phillips is in that position now. We are willing to try and see, and we urge the Commission to grant these applications.

MR. SPURRIER: Does anyone else have a comment in this case? If not, we will take the case under advisement and move on to the nomenclature cases.

.....

Coal Application
Re-hearing - 10/15/53

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

CASE 556: (Re-hearing) Notice is hereby given by the State of New Mexico, through its Oil Conservation Commission, that Phillips Petroleum Company, upon proper petition, has requested a re-hearing in Case 556; that in said petition, petitioner asks recision of Order No. R-350, which order refused petitioner's application for permission to effect dual completion of its Fort No. 1 Well, NE/4 NE/4 Section 34, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico, in such manner as to permit production of oil from both the Devonian and Wolfcamp formations; that the Commission, by its Order No. R-350-A, has granted said re-hearing and set it for 9 a.m. on October 15, 1953, at Mabry Hall, Santa Fe, New Mexico, at which time and place petitioner and other interested parties will be heard.

CASE 557: (Re-hearing) Notice is hereby given by the State of New Mexico, through its Oil Conservation Commission, that Phillips Petroleum Company, upon proper petition, has requested a re-hearing in Case 557; that in said petition, petitioner asks recision of Order No. R-351, which order refused petitioner's application for permission to effect dual completion of its Fonzo No. 1 Well, NW/4 NW/4 Section 35, Township 14 South, Range 37 East, Lea County, New Mexico, in such manner as to permit production of oil from both the Devonian and Wolfcamp formations; that the Commission, by its Order No. R-351-A, has granted said re-hearing and set it for 9 a.m. on October 15, 1953, at Mabry Hall, Santa Fe, New Mexico, at which time and place petitioner and other interested parties will be heard.

TRANSCRIPT OF HEARING
October 15th, 1953

BEFORE: Honorable Ed. L. Mechem, Governor
Honorable E. S. Walker, Land Commissioner
Honorable R. R. Spurrier, Director, OCC

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I hereby certify that the within transcript of proceedings before the Oil Conservation Commission is a true record of the same to the best of my knowledge, skill, and ability.

DONE at Santa Fe, N. M., this 17th day of October 1953.

/s/ Marjorie C. Allan
Reporter

SWORN TO before me this 17th day of October 1953.

/s/ Not legible
Notary Public

My Commission Expires:
Jan. 24, 1954

(SEAL)

CASE 556: In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Fort Well No. 1, NE/4 NE/4 Section 34, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,536 to 12,710 feet, and oil from the Wolfcamp formation after perforating from 9,680 feet to 9,360 feet.

Re-hearing

CASE 557: In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Fonso Well No. 1, NW/4 NW/4 Section 35, Township 15 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,456 to 12,680 feet, and oil from the Wolfcamp formation after perforating from 9590 feet to 9260 feet.

Re-hearing

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COM. SPURRIER: We will now take up Cases 556 and 557.

(Mr. Graham reads the advertisement of the case.)

JUDGE FOSTER: If it please the Commission, I have Mr. Jacob L. Williams here as a witness. He has not previously testified before the Commission, and therefore I will qualify him.

****

JACOB L. WILLIAMS

having been first duly sworn testified as follows:

DIRECT EXAMINATION

BY JUDGE FOSTER:

Q Will you please state your name to the Commission?

A Jacob L. Williams.

Q Where do you reside?

A Midland, Texas.

Q By whom are you employed?

A Phillips Petroleum Company.

Q In what capacity?

A Geologist.

Q From what school are you a graduate?

A Iowa State College.

Q What year did you graduate?

A 1943.

Q With what degree?

A Bachelor of Science.

Q And how long have you practiced your profession as geologist?

A Eight years.

Q All of that time with Phillips Petroleum Company?

A Yes.

Q What are your duties and where are you located?

A Midland, Texas.

Q You are familiar with West Texas, New Mexico area of oil and gas production, are you?

A Yes.

Q And you have made a study of the Denton Pool in which Phillips has some wells?

A Yes.

Q And you have made a study of the area that is at issue here in respect to the application of Phillips Petroleum Company to dually complete some oil wells?

A Yes.

Q What area is that?

A Denton Pool.

Q And have you prepared some Exhibits and cross-sections with respect to testimony you wish to present?

A Yes.

Q JUDGE FOSTER: We submit the witness has been qualified, Mr. Commissioner.

COM. SPURRIER: He is qualified.

Q (By Judge Foster): Mr. Williams, will you turn here to the board and just designate the first instrument on the board there as Phillips Petroleum Exhibit No. 1?

(Phillips Petroleum Exhibit No. 1 is identified by Mr. Williams.)

Q Now, will you please tell just what that exhibit represents?

A Exhibit No. 1 is a map of the top of the Wolfcamp formation. This particular map I should explain to be on a scale of one inch equals two thousand feet and, some copies I have made here are on a scale that one inch equals four thousand feet.

Q That is a map that reflects the Phillips Petroleum Company's Fort No. 1 and its Fonzo No. 1 wells in the Denton Pool?

A Yes.

Q Will you tell the Commission what that map shows in respect to those two wells.

A This is a map on top of the Wolfcamp formation. It shows which wells are situated higher on the structure and which are located on the Fringe, in this position here.

Q What do you mean by "in this position here"?

A Sections 11, 15, 37 and Sections 2, 15, 37 are located on the crest of the Wolfcamp structure. The Phillips' Fonzo Well No. 1 and Fort No. 1 are located off of the crest of the Northwest fringe of this structure.

Q On what quarter section are those located?

A The No. 1 Fort is located on the NE/4 of the NE/4 of Section 34, Township 14 South, Range 37 East, NMPM.

Q And the other ones?

A The Fonzo Well No. 1 is located on the NW/4 of the NW/4 of Section 35, Township 14 South, Range 37 East, NMPM.

Q In respect to the structural position, what do they show?

A That the No. 1 Fort and No. 1 Fonzo are located on the northwest flank of the down structure.

Q I see you have some legend on the map. Will you explain it?

A The blue encircling the different wells designate that that well is producing from the Wolfcamp and the red pertains to the Wolfcamp formation.

Q There is some other color there, is there not?

A Yes. Yellow shows the leases in which Phillips has an interest.

Judge Foster: We offer in evidence Phillips Exhibit No. 1.

COM. SPURRIER: Without objection, it will be admitted.

(Phillips Exhibit No. 1 received in evidence.)

Q Will you please take that Exhibit down and put up Phillips Exhibit No. 2, identifying it please?

(Phillips Exhibit No. 2 identified.)

Q Now, will you just tell the Commission, without explaining anything that is on the map, just what that map is? What is that?

A That is a cross section drawn North-South through the Phillips No. 1 Fort and showing the relation of the Wolfcamp to the lower formations.

Q What is the source of the information reflected on that map?

A Electro-logs.

Q And was that prepared by you or under your supervision?

A Yes.

Q And that correctly reflects the condition there as you have pictured it on the Exhibit in respect to wells shown on there?

A Yes.

Q Will you please explain that to the Commission and tell them what facts are on there and draw any conclusions from that?

A I will show the cross sections which are on the map, Exhibit No. 1.

Judge Foster: I have had some folders made up that contain all of these maps and you might want to look at them and follow them along with the testimony.

(Whereupon, the folders are distributed.)

A It sets forth the two locations of Phillips - No. 1 Fort starting at Magnolia going into Magnolia and Phillips No. 1 Fonzo and south to Atlantic 8-34 and Atlantic through Jones.

Q You say it extends north to the locations. What is the distance of the locations in that area?

A 1300 feet.

Q You are speaking about well location?

A Yes.

Q And that is on the 40 acres proration units in that area?

A Yes, sir. This map is pretty much of Wolfcamp, so it does not show much structure on this particular cross section, but it does show the relationship of the Wolfcamp to the underlying formations. For instance, the distance from the top of Wolfcamp on No. 1 Fort at this base and west on top here is 750 feet, and the distance from here to here,

Q Where is from here to here?

A From the top of Wolfcamp then to the top of Devonian is about 3100 feet. Another thing it shows is the drill tests in the upper Wolfcamp. You will notice tests in the upper Wolfcamp recover oil in many cases, but the lower Wolfcamp offered nothing.

Q You are pointing to those drill stem wells. What have you got on the map?

A Magnolia - Monument. This shows above the Wolfcamp that tests have gotten nothing but mud and at the top of the Wolfcamp, 7245 feet, of oil.

Q That is oil in the pipe or hole?

A In the pipe.

Q And beyond that, by a drill stem test, it recovered mud?

A Yes.

Q You speak about a drill stem test. Where was that?

A That was on Phillips' No. 1 Fort.

Q What did it show?

A On these two tests in the upper part of the Wolfcamp, we got 11.3 barrels of oil on the first and 32 barrels of oil on the second. There were three tests there below that and they recovered mud.

Q Compare Phillips' Petroleum Company's No. 1 Fort with No. 1 Magnolia Monument with drill stem tests. How does that compare? How do those wells compare?

A Magnolia recovered 7,245 barrels of oil and this one recovered 11.3 barrels of oil on the first test and 32 barrels of oil on the second test.

Q What well do you mean when you say "this one"?

A The Phillips Fort No. 1.

Q And that is one of the wells involved in this case?

A Yes.

Q And so the Magnolia well appears to be a substantially better well than Phillips No. 1 Fort?

A Yes.

Q Would you say it is a substantially better well than Phillips' No. 1 Fort on drill stem basis?

A Yes.

Q If you were to select the best one, which one would that be?

A Magnolia No. 1 Maxwell. We do not have any information on the Atlantic well.

Q How far from the Phillips Fort No. 1 was the Atlantic's No. 1 Dickson?

A About 2600 feet.

Q Would that be about one-half mile?

A Yes.

Q And, on the basis of drill stem test comparison, how does the Phillips' Fort No. 1 compare with Atlantic No. 2 Dickson 834?

A Fort No. 1 recovered 1200 feet of oil and Atlantic No. 2 Dickson 834 recovered about 1990 feet of oil.

Q Would you say that Atlantic No. 2 Dickson was substantially a better well than Phillips No. 1 Fort on the basis of the drill stem tests?

A It is somewhat better.

Q You are looking at the map - which one would you take as the best well?

A Atlantic No. 2 Dickson 834.

Q What is the next well shown?

A Atlantic No. 2 Jones. They took one drill stem test on top of Wolfcamp and recovered 3109 feet of oil and on another test recovered fifteen feet of mud.

Q Comparing Atlantic No. 2 Jones with Phillips Fort No. 1 on drill stem tests, how did they compare?

A I would say this one had a much better test.

Q You would take Atlantic No. 2 Jones against Phillips' No. 1 Fort, would you?

A Yes.

Q What other information have you collected on that map?

A Another thing of interest is that the oil recovered is from the very top of the Wolfcamp.

Q In what well?

A In all of them.

Q And the tests below the top did not get any?

A No.

Q How do you account for that?

A Through lack of permeability.

Q When you say "lack of permeability", that does not mean anything to me. What are you talking about? Put that in the record.

A Permeability is the ability of the formation to allow fluid to pass through it.

Q To turn it loose and get it into the well hole?

A Yes.

Q How does the permeability of Phillips Fort No. 1 compare with the other wells shown here on the cross section?

A It is much lower.

Q Does that mean better or worse?

A It is worse.

Q Does that mean that you are less likely to recover substantial amounts of oil from Phillips Fort No. 1 than from the other wells?

A Yes.

Q It is just a poor well?

A Yes.

Q That is what these facts represent?

A Yes.

Q Is that what the map is for?

A Partially, and also to show the relationship between the Wolfcamp and the underlying formations.

Q Just show us, if you will, what the relationship is between the Wolfcamp and the underlying formations, well by well.

A It is pretty much the same for all of them. It shows the Wolfcamp is about 1750 feet thick.

Q The Wolfcamp formation from the top to the base?

A Yes.

Q That does not mean you have 1750 feet of pay section, does it?

A No. Underlying that we encounter the Upper Mississippi lime which, in this particular cross-section is about 600 feet thick. Below that is the Lower Mississippi lime which is 750 feet thick. Below that is Woodford 110 feet thick shale and then Devonian.

Q In what formation can you get production in that area, fro: those wells shown in the cross section?

A In the very uppoer part of the Wolfcamp and in the Devonian.

Q These other formations, the Upper Mississippi and the Lower Mississippi and other formations, are not productive of oil and gas?

A Not in this cross section.

Q They do not produce?

A There was one well that produced for a while, but it is in the Upper Mississippi.

Q Those formations are not productive formations in this pool?

A No.

Q What other information is reflected on that map?

A That is about all.

Q Will you take that down and go to the next one. Just before you take that down, let me ask you what is the distance from Phillips' Fort No. 1 to Atlantic No. 1 Jones?

A About three-quarters of a mile.

Q That is about three locations away?

A Yes.

Q Over there, get to the very end of the map, what is that well?

A That is the Magnolia No. 3 Maxwell.

Q Do you have a drill stem test on that one?

A No, I do not. There is a twin to this well, but the Devonian well is not tested.

Q Just the Devonian is reflected in this cross section?

A Yes.

JUDGE FOSTER: It is please the Commission, we would like to offer in evidence Phillips' Petroleum Exhibit No. 2.

COMM. SPURRIER: Without objection, it will be admitted.

(Phillips Petroleum Co. Exhibit No. 2 admitted in evidence.)

Q (By Judge Foster) Will you mark that Exhibit on the board as Phillips' Exhibit No. 3 please?

(Phillips Petroleum Co. Exhibit No. 3 identified.)

Q Without stating what Exhibit No. 3 reflects, just state what it is.

A This is a North-South cross section through Point B shown on the map.

Q What map?

A On the Wolfcamp map of Denton Pool. It shows essentially the same thing as Exhibit No. 2 except it goes through Phillips No. 1 Fort. It is one location East up depth from Exhibit No. 2, which is cross section.

Q You mean Fonzo No. 1 instead of Fort, do you not?

A Yes.

Q The other cross section went through Fort No. 1?

A Yes.

Q Also, at the extreme left hand side of the map you have the Magnolia No. 16 Pope reflected in the Wolfcamp formation?

A Yes, this is the top of the Wolfcamp formation, and the well is in the process of being completed now.

Q Is there anything that you want to add in effect to that cross section that you did not talk about on the other one?

A No.

Q On Phillips Fonzo Well No. 1, what did the drill stem tests show?

A There were two tests in the upper part, which is the most prospective. The two tests taken recovered no formation fluid.

Q You got nothing on that?

A No.

Q That makes it still a poor well as well as the other Phillips well?

A I do not think so, because the upper part was not tested. Some of these other drill stem tests are of interest. Magnolia No. 16 Pope tested the upper, most prospective part, and recovered 1630 feet of oil and ninety feet oil and gas test mud.

Q Is that a good or bad well?

A To me it would indicate there is not much there. It is a pretty poor well.

Q How far is that from Phillips No. 1 Fonzo?

A Thirteen hundred feet.

Q One location West?

A Two locations North.

Q That would be about 2600 feet?

A Yes.

Q. Have you any other drill stem tests that may be of interest?

A The Magnolia No. 4 Pope well flowed 27 barrels of oil in one hour and, when they tested it the second time, they got no fluid.

Q What does that mean?

A It indicates that it might make a well in the upper Wolfcamp.

Q Referring to Phillips Fonso No. 1, how does it compare?

A It is hard to say because it was not tested in the same zone.

Q Why did you not test it?

A I do not know.

Q There is nothing unusual about it?

A No; it could probably be tested.

Q But you do not know why it was not tested?

A No, I do not.

Q Have you some other drill stem tests?

A Between 3 D, Deck A was tested in the upper part and recovered 580 feet of oil and 270 feet of oil and salt water.

Q What does that indicate?

A It indicates to me there is not as much oil as there was here on the Pope and that the water is connate water.

Q Now, in the No. 2 Deck you had a drill stem test?

A Yes, the test recovered 6,450 feet of oil.

Q That indicates a pretty fair well?

A Yes.

The Atlantic No. 1 Jones tested 390 feet of oil and gas mud and 150 feet or slightly over of gas mud.

Q In the upper Wolfcamp?

A Yes.

Q When you say "the upper Wolfcamp", what do you mean?

A I am meaning the upper 100 to 150 feet that has the best permeability.

Q Does that indicate the Atlantic No. 1 Jones is a pretty good well?

A Not to me.

Q Any other statements you want to make?

A No.

JUDGE FOSTER: We would like to offer in evidence Phillips Petroleum Company Exhibit No. 3.

COM. SPURRIER: Without objection, it will be admitted.

(Phillips Petroleum Company's Exhibit No. 3 admitted in evidence.)

Q (By Judge Foster) Will you please identify the Exhibit on the board as Phillips Exhibit No. 4?

(Phillips Petroleum Company's Exhibit No. 4 marked for identification.)

COM. SPURRIER: We will take a recess until 1:30.

(thereupon, at 12:05 p.m. the meeting recessed until 1:30 p.m. of the same day.)

AFTERNOON SESSION

1:30 p.m.

COM. SPURRIER: The meeting will come to order please. Judge Foster, will you continue please?

JUDGE FOSTER: I want to get a correction in the record, in the testimony of Mr. Williams about the feet of oil on the drill stem test in our Fort No. 1 Well.

Q I believe you said you had 1200 feet of oil in the hole?

A Yes.

Q That should have been what?

A Approximately three thousand. The number of barrels was correct.

Q You miscalculated the number of feet of oil in the drill stem?

A Yes.

Q What size is that drill stem?

A Three and one-half inches I believe.

Q Now, as we adjourned, you had just identified Exhibit No. 4 up there and, without stating what Exhibit 4 reflects, will you tell what it is?

A Exhibit 4 is a cross section, East-West, through the Phillips No. 2 Fort, No. 1 Fort and No. 1. Fonzo and Magnolia #13 Pope starting from a point above the Wolfcamp through the Devonian.

Q For what purpose did you prepare that cross section?

A To show the relationship between the formations below the Wolfcamp, East and West; the T.D in the area.

Q What is "T.D."?

A Total Depth.

Q Going over to Phillips No. 2 Fort - what is reflected on Exhibit 4 in respect to that well?

A It shows the top of the Wolfcamp and total depth of 9780' at which it was broken.

Q That is Phillips No. 2 Fort?

A Yes.

Q Are you saying that was a dry hole?

A Yes.

Q How close what that dry hole to Phillips No. 1 Fort?

A About thirteen hundred feet.

Q What direction from Fort No. 1?

A West.

Q How far west?

A Thirteen hundred feet.

Q You mean approximately thirteen hundred feet?

A Yes.

Q You got a dry hole in Wolfcamp?

A Yes.

Q You did not drill on to the Devonian?

A No.

Q Why?

A Because we thought it would be low on the structure - below the water.

Q What does the Exhibit reflect with respect to Phillips No. 1 Fort, one of the wells at issue here?

A. It shows Phillips No. 1 Fort is up on the Devonian structure, up from the No. 2 Fort.

Q But it is still down structurally?

A Yes, from the other wells located on the cross section.

Q On Phillips No. 1 Fort, do you have any drill stem tests there?

A I do not know them on this cross section, but I did on the other ones.

Q You show Phillips No. 1 Fonzo. Where is it located with respect to Phillips No. 1 Fort as shown on the Exhibit?

A It is one location east.

Q And what will this Exhibit reflect with respect to No. 1 Fonzo and No. 1 Fort? What wells?

A It shows that Phillips No. 1 Fonzo is structurally about the same as Phillips No. 1 Fort.

Q But still on the down structure?

A Yes.

Q What do you mean by saying they are "down structure"?

A That they are closer to water.

Q They are not as well located as other wells?

A Yes.

Q Do you mean they are, or are not?

A They are not as well located on the structure.

Q And what effect is that likely to have in respect to getting a good or bad well?

A If it is low on the structure, there would not be as much prospective as above water.

Q As there would likely be up on the structure?

A Yes. It is better developed on the upper structure than on the lower structure.

Q Then you would expect from the structural position of Phillips Fort No. 1 and Fonzo No. 1 wells that they would not be as good wells as those would be further up structure?

A In general.

Q You would expect they would produce less oil than other wells?

A Other things being equal, yes.

Q In respect to this Exhibit, the other two cross sections that we have been talking about, Exhibits 2 and 3, I notice you have the logs on there. How did you get them on there?

A Just glued them on.

Q Did you just photograph them?

A Those are the electro-logs which have been photostated. Then I had the photographer shoot them down to one-half size.

Q But they are the actual reproductions of the actual logs of the well? Is that correct?

A Yes.

Q And the Atlantic No. 5 Dickson would be up structure from Phillips No. 1 Fonzo? Is that right?

A Yes.

Q Is there any special information shown in respect to that well that you have not testified about?

A No.

Q Just that it is higher than Magnolia No. 13 Pope, is that true also?

A It is shown to be down on the flank of the Wolfcamp as you go West.

JUDGE FOSTER: If it please the Commission, we would like to offer Phillips Petroleum Company Exhibit No. 4 in evidence.

COM. STURRIER: I accept it. It will be admitted.

(Whereupon Phillips Petroleum Company Exhibit No. 4 was admitted in evidence.)

JUDGE FOSTER: We will go now to the next Exhibit, No. 5.

Q Will you please mark that cross section as Phillips Petroleum Company's Exhibit No. 5?

(Phillips Petroleum Company's Exhibit No. 5 marked for identification.)

Q Mr. Williams, before I interrogate you about Exhibit 5, I want to return to our discussion about these comparative drill stem tests. I want this record to be clear and to not want anybody to be confused about the matter and I want you to state for the record here what the value of a drill stem test is.

A I would say that that test is an indication of what a well might produce in general.

Q In the industry, as a rule of thumb in the early stages of drilling, you do rely on these drill stem tests to give you some indication of what kind of a well you might get, do you not?

A Yes, as an indication.

Q Now, it is true, of course, that in comparing drill stem tests, that one drill stem test there has gotten less in the hole than another drill stem test would show in another well, but that does not necessarily indicate that the well that has got the least oil in the hole is the poorest well, does it?

A Not necessarily.

Q By taking the law of averages and not by using it as a rule of thumb, it does indicate that the lower drill stem test is most likely to produce the poorest paying well, is that not so?

A In general.

Q There are some exceptions?

A Yes.

Q But I mean on the over all picture generally, the lower the drill stem test in the well the less productive well you might expect to get?

A I would say the poorer the drill stem test, the worse it would look in general.

Q Tell us what is represented here on Exhibit No. 5.

A Exhibit No. 5 is another cross section covering just a part of the Wolfcamp. It is constructed of micro-logs of Wolfcamp pay sections and covers the same wells that were shown on Exhibit 4.

Q I want to be sure that this record shows what a micro-log is.

A It is an electro-log in much greater detail, designed to show the porosity of a pay zone.

Q They kind of act as a looking glass for the industry so they can look down in the ground and tell what is down there?

A It shows the porosity but does not indicate the permeability.

Q Is it the most accurate way you know of to determine the porosity?

A In the absence of cores, I would say yes.

Q It is the only recognized way of doing it?

A Yes.

Q These micro-logs are generally relied on by the industry as being accurate in respect to information that they reflect?

A Yes.

A Yes.

Q I mean in a practical way. I am not talking theoretically. That is what the industry puts its money on?

A It is what we complete wells from.

Q This cross section here, Exhibit 5, reflects the micro-logs of what wells?

A Phillips No. 2 Fort west and going east, Phillips No. 1 Fort, Phillips No. 1 Fonzo and Atlantic's Dickson and below that are Magnolia's No. 22 Pope and Magnolia's 33 Pope. These two wells are not on scale.

Q For what purpose did you prepare that Exhibit?

A I prepared it to show the structure, which is similar to the

other cross sections showing that you are coming down going West and also to show the characteristics of the Wolfcamp pay interval is from the top of Wolfcamp to water.

Q What is the characteristic of Wolfcamp pay zone there, as reflected by that Exhibit?

A This Exhibit shows it to be lenslike. The black represents porosity. It does not represent pay. And, in between, is the impervious zone. It shows the zones of porosity regardless of fluid. The sands in that area are limestone but linticular formation.

Q What do you mean by"linticular"?

A It is just like your fingers spread out.

Q It just comes to nothing?

A Yes.

Q If a zone of sand on which you might expect you pay, what would you say about a linticular sand?

A You cannot depend upon a given porosity being present in an offsetting well. It might peter out.

Q Starting from the top of Wolfcamp sand, where you have it illustrated on the Exhibit, at what depth would you encounter the top of that sand?

A This line represents the top of the structure, and the top on the West is 9350 feet.

Q And where do you get the bottom of it?

A We have a water level that is very poorly established at 9900 feet. The reason it is poorly established is that the pay is so linticular that you do not get water because of lack of porosity.

Q You have a pay zone of what thickness?

A On an oil bearing zone, from the top to the bottom.

Q What thickness? From where you first hit it to where you can get it?

A There is some porosity almost to the top of Wolfcamp and maybe 20 feet to 30 feet in depanding on wells, but from the top of Wolfcamp to minus 5800, which is approximately later, the interval bears to 245 feet to about 471 feet over here and higher over there on the crest of the Wolfcamp structure. (Illustrating on map).

Q On Phillips No. 1 Fort, what is the area?

A The Phillips No. 1 Fort has about 208 feet from the top of the Wolfcamp to minus 5800, but not all of this is pay.

Q You do not mean that you have 250 feet of sand there that will produce oil?

A That is the interval in which it would be found. Beyond this depth, you would not expect it.

Q Now, that is about 200 feet?

A Yes.

Q In the Phillips No. 1 Fort?

A Yes.

Q What is it in the Phillips No. 1 Fonzi?

A It is close to 400 feet - about 370 feet.

Q That is from where you first strike the top of the Wolfcamp horizontally until you run out of it?

A Yes.

Q Going back to Phillips No. 1 Fort, how much effective pay sand do you have in that well?

A I think according to the micro-logs, there is twenty-nine feet indicated porosity, but I do not feel that all of that is pay because in the drill stem actually, that is five feet on top of Wolfcamp from which we got our oil on the drill stem test.

Q Did you say out of the 280 feet distance from the top of the Wolfcamp sand down to the bottom of the Wolfcamp sand in Phillips No. 1 Fort, you have only five feet on which you can expect oil?

A That five feet looks the best and below twenty-two feet of this we could not depend upon. It may yield a little oil but not much.

Q You would not expect much production?

A No.

Q So the effective pay sand does not exceed five feet, is that right?

A Yes.

Q How does that compare with the effective pay zone in the Magnolia No. 22 Hope?

A Magnolia No. 22 Hope has about eleven feet and that is the best part of Wolfcamp and sixteen feet developed by micro-log.

Q Now, in Magnolia No. 13 Pope what would you say?

A About the same.

Q How does that compare with Atlantic's No. 5 Dickson on the map?

A It has more - in the neighborhood of 14 feet.

Q Comparatively speaking then, the micro-logs show Phillips No. 1 Fort, as compared to the Atlantic's No. 5 Dickson and the two Magnolia wells, No. 13 and #22 Pope, is relatively poor?

A Yes.

Q And you would not expect to get anything from the recovery of oil from Phillips No. 1 Fort like the two Magnolias?

A No.

Q What would you say in reference to Fonza No. 1?

A It has about 28 feet developed throughout the best part. Where we were talking about, No. 1 Fort was possibly seven feet.

Q Does that indicate to you that as you go up structure your effective pay zone increases?

A Not necessarily. In general it is true, but there are wells that are high that have not effective pay zones.

Q But you do not have a record of them here?

A One of those is down toward the south. There is about 42 feet effective pay zone.

Q Comparing Phillips No. 1 Fonza with Atlantic's No. 5 Dickson, Magnolia's 22 Pope and Magnolia's 33 Pope, relatively

speaking, would you say that Phillips No. 1 Fonzo is a poor well?

A I would say according to micro-logs it would indicate it was not a good well.

Q You say according to micro-logs - do you have anything else to go by?

A We do not have a drill stem test.

Q But you do have your micro-logs?

A Yes.

Q And it shows it a relatively poor well?

A As compared with other wells I mentioned, yes.

Q It shows it to be a little better well than Phillips Fort No. 1?

A Yes.

Q And you would expect some more oil out of No. 1 Fonzo than you would out ofNo. 1 Fort? Is that right?

A Yes.

Q Now, let me ask you this question. Are there any other factors reflected on this cross section that you want to call to the Commission's attention?

A I do not know whether we have gone over it in detail or not. I think the drill stem tests are interesting. With very few weels, we do not get very much formation fluid above this upper porosity - 50 to 100 feet below Wolfcamp. That porosity in the micro-logs has not yielded anything on drill stem test.

Q You mean in the lower porosity zones?

A Yes.

Q You mean when you are talking about lower porosity zones, you are talking about sands?

A Yes, I am not talking about pay sands. There are dolomites and limes, etc. As I already said, we tested No. 1 Fort through these zones.

Q That does not mean anything. You will have to tell me what zones are.

A Zones show porosity.

Q Where are they located?

A Between depths of 9518 feet and 9600 feet.

Q The drill stem tests on those zones shows what?

A Just mud. They did not give up any formation fluid. The Phillips No. 2 hold, one location west, tested the lower porosity zones from a depth of 9620 feet to 9730 feet, part of which, having minus 5800 figure for water, and recovered mud on three tests and water on the 4th test.

Q Indicating there is nothing there?

A Yes and we perforated these porosity zones and the first one was from 9677 to 9690 for twelve hours and we recovered sixteen barrels of salt water.

Q What well had that?

A Phillips No. 2 Fort. Then we perforated the porosity from 9608 to 9630, allowed four barrels of mud in five hours and swabbed

dry and atte pted five gallons of acid and it was impervious. After that we perforated 9550 to 9578, swabbed dry, atte pted acid, and it did not take. It does not show much on the micrologs, however. After that we perforated from 9460 - it happens to be in the upper Wolfcamp - and swabbed dry and got seven barrels of mud in eight hours.

Q Are you still talking about Phillips Fort No. 2?

A Yes. These drill stem tests and perforations on Phillips No. 2 Fort here, two of them were these lower porosity zones that were encountered on No. 1 Fort.

Q What did you do on drill stem tests and further tests on Phillips No. 1 Fort?

A We just took drill stem tests and tested it down to the bone.

Q How about the Fonzo No. 1 respecting the drill stem test?

A We took two drill stem tests.

Q At what levels?

A The first was from 9350 to 9550, for a term of two hours, and the recovery was seven feet of slightly gas cut mud. We took the second drill stem test at 9605 to 9705 and were over one hour and twenty-five minutes and recovered 100 feet of mud and this one happens to be mostly below what we could call water.

Q Still in Wolfcamp?

A Yes. We did not test the upper, most prospective zone of Wolfcamp.

Q Now let me ask you something: There is some oil that is to be recovered from Phillips No. 1 Fort and Phillips No. 1 Fonzo? There is some oil there to be recovered, is there not?

A Yes.

Q Unless we twin this No. 1 Fort and No. 1 Fonzo, or the Commission here permits us to complete those two weeks, what is going to happen to that oil - that is, in the effective pay zones of those two wells?

A A good share of it would just stay there.

Q Where will the rest of it go?

A Some of it will be produced by other wells.

Q What surrounding wells are there?

A The Magnolia Maxwell No. 2.

Q Where is it located with respect to Fort No. 1?

A The Magnolia Maxwell is one location north.

Q The next location north from Fort No. 1?

A Yes.

Q What other wells around there might get some of that oil?

A Magnolia's No. 4 Pope is diagonally northeast offset and direct north offset to the Fonzo.

Q Do you expect that well to get some of that oil from the effective pay zone?

A Yes.

Q What other wells?

A Just from the Fort No. 1?

Q Yes.

A I believe that Atlantic is drilling immediately south of us.

Q That might bet some of it when it gets going?

A Yes.

Q In respect to Phillips No. 1 Fonzo, there is some oil there to be recovered?

A I believe so.

Q And, if you are going to get the oil out of there, you are going to twin that or dually complete it?

A Yes.

Q Suppose we do not complete it, where is that oil going to go?

A Some of it would stay there and some of it would be produced by surrounding wells.

Q What wells surround it?

A The Magnolia No. 4 Pope to the north.

Q Just one location north?

A Yes.

Q Is that not No. 8?

A Yes, that is No. 8 Pope. And to the East is the Low 90 Dickenson.

Q One location away?

A Yes, east. And to the south I believe there is Atlantic. No, I do not believe it is Atlantic, but Low 11 P Dickenson, which is

producing from Devonian.

Q That would get some of it?

A Yes.

Q Assuming - but I do not suppose you know about well pay out and things of that sort?

A No. I do not.

Q But, assuming for the purpose of this question that this No. 1 Fort and No. 1 Fonzo would not be what we would call a paying well, and that Phillips Petroleum Company, in discharging their duty to royalty owners would not be obliged to drill that well if it was not a paying well, the only way to get the oil out is to complete the well?

A Yes.

Q You have to get it out of a hole somewhere. You have to get it out of the hole or drill one, is that not true?

A Yes.

Q So, the net result is some of that oil in those two wells we are talking about will never be produced, is that not true?

A If it is not twined or dualed, it will not be produced.

Q It will just stay there and nobody get the benefit of it?

A Yes.

Q Mr. Williams, let me ask you this question: I may have overlooked something that may be of important to the Commission in settling this matter, and, if I have, will you please tell us what it is, if I have failed to ask you something that I should have asked

you as to what is reflected here by this Exhibit 5, that you would like to explain?

A I think we have covered most of it. The only thing that is of more interest to me than anything else is that it seems in this part of the field, and possibly throughout the field, the best prospective porosity is found in the upper part of the Wolfcamp and not further down.

Q What is the upper part of the Wolfcamp?

A I would say the upper one hundred to one hundred and fifty feet and sometimes closer to the top than that. It may be within thirty feet of the top, but within an interval of from one hundred to one hundred and fifty feet of the upper Wolfcamp would be found the most effective pay. That is indicated by the drill stem tests and comparative methods that have been attempted in lower zones below one hundred to one hundred and fifty feet I am speaking of. The micro-logs would indicate the prospective in the upper zone is just as good - down in here.

Q Where is "down in here"?

A Well, starting about one hundred and fifty feet on down. From a point one hundred and fifty feet below the top on down.

Q The micro-logs indicate what?

A The porosity indicates it may be just as good but drill stem tests do not substantiate that. It did not give up anything from the formation.

Q If anything was there, would you expect to get it on drill

stem test?

A Generally, not always. Wells are completed at 100 to 150 feet. These lower zones, below the depth of 150 feet, samples indicate the porosity is a pinpoint and not as permeable.

Q Do you know of any productive wells in Wolfcamp in what you describe as a lower zone?

A There are some completed in both zones, but the upper zone would be contributing most of the oil and although some of them are completed in the lower zones, they would be in the minority. I think the cross section would indicate porosity in the lower part, but most of the pay will come from the upper part, 100 to 150 feet.

Q I want to call your attention to something. If you cannot answer it, just say so. It is already in this record by Mr. Washburn that in the Fort No. 1, you have 22 feet of six percent porosity. What does that mean to you?

A He is counting 22 feet porosity from the micro-logs and core information on other wells. I count about 29 feet from the micro-logs alone and the fact they had six percent porosity does not mean you would have effective permeability in all of it.

Q We have the same testimony with respect to Fonzo, that yougot 35 feet six percent porosity effective pay zone. What does that mean to you?

A Just the same. Not all of these thirty-five feet would be effective pay. It may not be permeable. I do not think it is from the drill stem tests.

Q The drill stem test indicated it would not be?

A A lot of this includes this down here which we did not get anything on.

Q That is being liberal on it?

A Yes, I would say so.

Q Not that there is anything wrong in being liberal, but I just wanted to make it clear. I believe that it all.

COM. SPURRIER: Does anyone have any question?

CROSS EXAMINATION

BY MR. MADOLE:

Q Judge Foster, I would like to ask your witness a question: Mr. Williams, in the micro-logs that you have made a cross section East and West, did you look at micro-logs North and South to make a comparison there?

A No, I have not made a cross section of it.

Q Why not?

A Because I did not have time.

Q Would it paint a better picture?

A Going South, some of the wells are better. The Atlantic No. 4 Ted Jones which is situated in the SE/4 of the SE/4 of Section 34, Township 14, Range 37, the micro-log indicates about 42 feet.

Q How about the North - on Maxwell No. 2?

A To the North, on Maxwell No. 2, I found it to be twelve feet.

Q How about Pope No. 8 on the north of Fonzo No. 1?

A I count 28 feet throughout the log that had been run but six feet at the top, but I had figured in the more prospective pay zone.

Q The comparison is almost identical to Fonzo No. 1?

A Yes.

Q How about to the South of Fonzo #1?

A Five feet on the low 3 V Dickenson. The twin is -

JUDGE FOSTER: While he is looking for this, I will submit Phillips Petroleum Exhibit No. 5 in evidence.

COM. SPURRIER: So long as there is no objection, it will be admitted.

(Whereupon, Phillips Petroleum Company's Exhibit No. 5 is received in evidence.)

Q (By Mr. Nodole) In other words, the wells to the North and South, the Fort and Fonzo No. 1, according to the micro-logs, they are almost identical to the logs you found on Fort No. 1 and Fonzo No. 1.

A Immediately north and south of us.

Q Are you familiar with the accumulative recovery of those wells.

A No, I am not.

MR. NODOLE: If the Commission please, we have asked Mr. Lacey to take off the figures from the Commission's report on the accumulative recovery of all the wells on the Wolfcamp in the Denton field. He has not had an opportunity to check his figures. We

would like to request permission that they be placed in the record.

COM. SPURRIER: The accumulative figures on the production of the various wells in the Wolfcamp formation in the Denton Field is requested from the records of the Commission. Is there any objection?

(No objection voiced.)

Q (By Mr. Madole) : I ask first on this five feet of pay that you find in Fort No. 1, what is your estimated recovery in barrels of oil?

A I do not have that.

Q Have you any opinion as to how much is recovered?

A No. Mr. Washburn would have to answer that.

Q Your opinion as to the footage of pay, etc. is based on micro-logs and comparison of drill stem tests - is that correct?

A Yes.

Q You have not taken into consideration the actual production in offset wells?

A I have taken into account the fact the surrounding wells, most of them, are producing only from their upper zone.

Q Would that be an indication of the amount of oil that could be produced from Fort No. 1 and Fonzo No. 1?

A I do not know how it could when you do not know how much they are going to produce.

Q You have the figures on actual production by months from

the time they have been in?

A We did know we did produce that much, but how would we know how long that would produce that?

Q It is as good an indication as drill stem tests, is it not?

A Yes.

Q Is it not a fact that drill stem tests at best are indications of mud conditions in the hole and everything else will affect that test?

A It is an indication.

Q But the mud indication of the well will affect recovery on the drill stem tests?

A Yes.

Q Then what that well will give up is best determined by the actual oil that comes out of the hole?

A Yes.

JUDGE FOSTER: I object - the question is argumentive!

MR. MADOLE: It behooves Foster to raise an objection - and he has been arguing with his own witness all through this case.

JUDGE FOSTER: I want to show it is argumentive.

Q (By Mr. Madole): If Maxwell No. 2, in six months' period, has produced 27,537 barrels of oil, would that not be a pretty good indication that Fort No. 1, which is directly off of that, will produce oil?

A Yes.

Q And in approximately the same amounts?

A I would not say that.

Q You found the micro-log had pay footage accrual?

A Just about.

Q What factors are you going to subtract from recovery in No. 1?

A By the same line of reasoning, you cannot use a drill stem test to tell what a well can produce, I do not see how you can use production from one well to say that the offset well will produce the same.

Q It is a pretty good indication, is it not?

A Yes.

Q In general or specific detail?

A In general.

Q Now you said on these micro-logs, on cross sections, that all of the wells indicate that production is from the first 150 feet?

A I said in general.

Q What do you mean by "in general"?

A Because there are some wells completed in both the upper pay zone and some have perforated in the lower part.

Q I am talking about this Exhibit. Is there any in the lower zone?

A There may be one or two.

Q Which ones?

A I believe Atlantic's #3 Ted Jones is run on cross section B-B Prime which would be Exhibit 3, is completed in both zones.

Q I am talking about those pictured on Exhibit No. 5. That is the one I am talking about.

A Four of those are Devonian wells and this one and this one (illustrating on map) are Wolfcamp ones which are completed in the upper zone.

Q Then, in your Fort No. 1 and Fonzo No. 1 you had 150 feet of Wolfcamp formation?

A You mean above water?

Q Yes.

A We had more than that.

Q Then your Fort No. 1 and Fonzo No. 1 have in them the same pay formation that is being produced toward the East, is that not so?

A Yes.

Q Now, if the Commission decides not to complete and if you decide to twin these wells, where can you locate Fonzo No. 1 Twin on Fonzo No. 1?

A We would not twin them.

Q Is it not true that if you move the Fort No. 1 to 330 feet from the East line and 330 feet from the North line on the contour map that you used as Exhibit 1, would not that well be structurally almost on the same structural level as Magnolia's Maxwell no. 2?

A You say 330 feet from the North and East?

Q Yes.

A Yes, it would.

Q Then, under the rules of the Commission at this time you are permitted to so locate such a well, are you not?

A I believe that is right.

JUDGE FOSTER: I do not know whether it is or not.

Q (By Mr. Madole) Will you mark on Exhibit with an "X" where that would be on your contour line?

A Yes.

(Whereupon he marks Exhibit #5 with an "X")

Q Let us go on the Fonzo - On that same contour map, and go 330 feet to the North and East line of Fonzo, which you have marked with an "X", and tellme whether or not it would be on a structure comparable to Magnolia's Pope No. 8?

A It would be just a little higher.

Q Now in the twinning of a well, your location of that twin well would not be identical with the Devonian location?

A No.

Q Then if these formations are linticular, there is a strong possibility of your hitting more porosity in that diffent location than inyour Devonian location?

A More or less porosity.

Q But, as you move to the north and east, by your own testimony, you are getting ore on structure, are you not?

A But I said in general the porosity -

Q In general?

JUDGE FOSTER: He has answered the question.

A It is hard to get specific because porosity does not change that much in relation to structure. This Atlantic well in the southeast of Section 34 is low on structure but it has high porosity, indicating it is quite erratic.

Q Did I understand your testimony correctly that, in general, as you move up structure you found more porosity?

A That is why I said "generally". There are exceptions to this.

Q What you are telling this Commission is, until you drill a hole that you do not find in Fort No. 1 or Fonzo No. 1, is that right?

A I did not say that. You can tell something by Devonian wells that have already been drilled.

Q You get general when it is necessary and you get specific when it is not necessary. I want you to stay on one side of the fence or the other. If, in general, going up structure you are going to get more permeability?

A I was speaking of the pool as a whole.

Q What is the purpose of this Exhibit 5?

A I was not speaking in respect to twin wells. On the crest of the Denton Pool the porosity is better - even that in general - but I think, in respect to twins, we could tell something about that

the porosity would be since the porosity on the immediate offsets are similar, which we already discussed.

Q Then if those wells would pay out, your wells should pay out?

A Yes, I think they would.

Q That is all.

REDIRECT EXAMINATION

BY MR. FOSTER

Q Did I ask you the extent of the pay zone was that you found in Fonzo No. 1?

A Seven feet.

Q That is all.

MR. L. C. WHITE: Mr. Williams, how conclusive is a drill stem test?

A I think you can say if you get a flowing test, it is a good indication. It does not mean anything about what that well will produce. It is just an indication of the production of the fluid in the drill stem test interval. I do not think it can be taken as any kind of a measurement.

MR. SELINGER: I am with the Shell Oil Company and I would like to ask Mr. Williams some questions.

CROSS EXAMINATION

BY MR. SELINGER:

Q Mr. Williams, referring back to Exhibit 5, micro-log cross section. This Exhibit ends at the so-called creek. If you

had this Exhibit protrude out to the right, it would show the crest dipping down as you go over to the right, would it not?

A My map indicates no completed wells over there unless the completion is very recent and, east of 13, there is the 21. Is that completed? My map does not show it completed. East of that well is Sinclair, which is still being drilled.

Q Looking on the structure indicated by Exhibit I, other wells have been producing on the other side of the crest, in the southeast or easterly direction. Is that not true?

A Yes.

Q Mr. Williams, I believe your testimony was with respect to Exhibit 3, and which Judge Foster this afternoon had you correct your original testimony of this morning, in respect to drill stem test calculations you made on your well?

JUDGE FOSTER: I did not have him correct it! He called my attention to it and wished to have that corrected himself.

Q Well, in which you attempted to correct your testimony this morning, there being an error in your calculations as indicated on your Exhibit No. 3. It is your testimony now that your estimate there would be a 3,000 fill up on drill stem test?

A Approximately.

Q And your testimony still remains in respect to Atlantic's well - 1990 fill up on a drill stem test - that still remains?

A Yes.

Q Faced with a drill stem test of 1990 on Atlantic's well

and 3000 or more on the Phillips well, could you answer Judge Foster as to which is the better well?

A I would say the one at 3000.

Q You would prefer your well to the Atlantic well?

A Yes.

Q And, in that respect, you are correcting Judge Foster's question in which you gave an answer just opposite to this morning's answer?

A Judge Foster did not have the correct information.

Q And now you wish your testimony to be changed, that you prefer the Phillips well?

A Yes.

COM. SPURRIER: Does anyone else have a question of this witness? If not, the witness may be excused.

(Witness excused)

COM. SPURRIER: We will take a short recess.

(Whereupon, at 3:10 p.m. a ten minute recess was taken.)

COM. SPURRIER: We will continue now. Judge Foster, did you have another witness?

JUDGE FOSTER: Mr. Washburn, will you be sworn please?

E. N. WASHBURN

having been first duly sworn testified as follows:

DIRECT EXAMINATION

BY JUDGE FOSTER:

Q Will you please state your name?

A E. N. Washburn.

Q You are the same Mr. Washburn who testified before in this case, are you not?

A Yes.

Q Mr. Washburn, how many barrels of oil at present prices will it taketo pay out a Wolfcamp well?

MR. SELINGER: We wish to object to this question on the ground that the matter has been gone into in the original hearing on July 16th here.

JUDGE FOSTER: I understand it would take 116,000 barrels to pay out. I wish to get the correct understanding about it. I think it is a fair question.

COM. SPURRIER: Let us get some new testimony.

JUDGE FOSTER: May I, for the purpose of the record, state what the answer would be? It is very important if there should ever be a court contest. They try it on the record and you can rule on the advisability or in inadvisability of the evidence, but I think it is important this witness be permitted to answer.

COM. SPURRIER: If it is new testimony we will hear it, but, if it is the same as the last hearing, I can see no reason to go over it again.

MR. SELINGER: My objection still stands that we went over this whole thing - the cost of the well by the amount of recoverable oil: The amount of oil necessary for each forty acres to pay out, and I see no reason to rehash it all over again.

JUDGE FOSTER: It is not my intention to do so.

COM. SPURRIER: If it is not in the record, put it in. What is your answer?

A 116,000 barrels of gross oil.

Q What do you mean by gross oil?

A Total oil.

Q Have you made any computation of the number of dual oil completed wells that Phillips Petroleum Company has operating today?

MR. SELINGER: I also wish to renew my objections, because he went into this at the last hearing.

COM. SPURRIER: Have you answered that before?

A I have similar data that is of a later date.

JUDGE FOSTER: It is a little different testimony.

MR. WHITE: I might state this to the Commission, that under this petition for rehearing, in my mind, I question the materiality of all the evidence introduced this morning and afternoon in this hearing. The grounds for rehearing are: 1. That Order 351 entered here was for further evidence. 2. As to the date of the Order. 3. That the Commission, in issuing said Order, acted unreasonably, arbitrarily and capriciously. I think the evidence should be set forth on the grounds set forth in the petition and not go over the whole case!

MR. SELINGER: That is why I objected. He is retrying it without the introduction of new testimony and this went through all of this morning and now this afternoon it is still testimony

of the last hearing!

JUDGE FOSTER: That while he testified as to the number of these wells, there is nothing in this record to show that Phillips has had ten years' experience in dually completing oil wells, and there is nothing in this record now to show that the depth, the range of the depth to which these dually completed wells have been completed by Phillips Petroleum Company, and if we are permitted to do so, we will show that we started in 1943 and, up to the present time, that we have dually completed seventy oil wells and that insofar as these seventy oil wells are concerned that no mechanical failure of the packers in those wells have ever resulted in any injury to the reservoir in which we have completed these wells. I think that is important in this case. There has been much said here and much objection about packer failures. We do not say that packers do not fail. Any mechanical device will fail at times as far as that is concerned, but I think it has very much probative value to show over ten years' experience by Phillips Petroleum Company that we have dually completed these seventy oil wells in widely varying areas from depths less than involved here to depths greater than involved here and that there has been very few failures in those wells and the few failures that have occurred, have not resulted in any injury to these reservoirs.

MR. WHITE: If that is your contention, what is it that you have to support your petition for rehearing on - your statement that the Order was unreasonable, arbitrary and capricious. What

testimony do you have to show that the order was unreasonable, arbitrary and capricious?

JUDGE FOSTER: I call your attention to Paragraph F under No. 3 of the Petition which reads that the Order will require the drilling of several wells. That will mean a terrific loss and that is the purpose of this testimony, to show that those excess number of wells would be required under the Order.

MR. WHITE: That is your ground for claiming that the Order is unreasonable, arbitrary and capricious?

JUDGE FOSTER: That is correct.

MR. WHITE: The Order would have to be based on what was introduced at the last hearing.

JUDGE FOSTER: We asked for a rehearing and it seemed to me we should have one.

MR. WHITE: The whole testimony is out of the scope of the petition.

MR. MADOLE: All of the testimony outlined by Judge Foster was available at the previous hearing - all of this testimony given this morning and so far this afternoon - was available. There was no motion for continuance to present additional testimony. The motion as I understand it, and it was apparently created to show they have newly discovered evidence that had developed since the last hearing. This here is simply a rehash and simply an accumulation of testimony that could have been put forth at the previous hearing. If they had prepared themselves to adequately prepare their

Petition at the first hearing and I do not understand that a Motion is granted for rehearing for them to bolster their own inadequacies. If they have some new evidence developed since the previous hearing, certainly the Commission is within its jurisdiction to permit that evidence to come in, but not simply to retry the evidence of the previous hearing. I do not think that is the function of this Motion for rehearing.

JASON KELLAHIN: I would call your attention to Paragraph D of the petition which alleges that the equipment proposed to be used will provide adequate protection to the horison which is clearly shown, and also will protect all correlative rights, and I do think we can present such testimony at this time.

MR. MADOLE: They presented their Otis pressure group and we had a demonstration of the effectiveness of packers and crossover nippels, etc. , but Paragraph D wholly refers to prior testimony.

COM. SPURRIER: If you have new testimony, let us hear it.

JUDGE FOSTER: Do you consider this testimony new?

COM. SPURRIER: If it is not in the previous record, it is new.

JUDGE FOSTER: I think what I am offering here is new testimony.

COM. SPURRIER: Proceed, and we will see.

Q (By Judge Foster) I have here a tabulation showing dually completed oil wells that Phillips Petroleum Company has as of July 1st, 1953 giving the pool, lease, well number - in the lower zone its name and depth perforated and, in the upper zone, its name, the depth of perforation, and the date it was dually completed. Will you hand that to the reporter please so that she can mark it Phillips Petroleum Company's Exhibit No. 6.

(Phillips Petroleum Company Exhibit No. 6 marked for identification.)

MR. MADOLE: We object to that!

MR. SELINGER: They were here on July 16th and all this testimony was available.

A (By Mr. Washburn) It is dated July 1st in the field but it is not received in Bartlesville office until September.

Q (MR. MADOLE:) You could have accumulated it at the time of the last hearing, could you not?

A Yes.

COM. SPURRIER: Proceed.

MR. MADOLE: May we have a ruling as to where we stand on this record?

COM. SPURRIER: Your objection is overruled. Proceed, Judge, but confine your testimony to new testimony.

JUDGE FOSTER: I will try to do that. You will have to decide whether it is new or not. Somebody is going to have to decide that question.

Q (By Judge Foster) Mr. Washburn, directing your attention to Exhibit 6, between what depth ranges were those seventy dually

completed oil wells?

A For the upper ones about 4400 down to a depth of 12,500.

Q Now, between what dates were those wells completed?

A From April of 1943 to August of 1953.

Q Now, to whatever extent you may have had any power failure in those wells, do you know of any power failure resulting in any damage to the reservoir?

A No, sir.

JUDGE FOSTER: That is all.

CROSS EXAMINATION

BY MR. SELINGER:

Q Mr. Chairman, we objected to this witness' testimony entirely and also to the introduction of this Exhibit. However, we wish to ask Mr. Washburn, in this Denton field, what is the difference in depth between the Devonian production and the Wolfcamp production? How much of an interval?

A I would guess about three thousand feet.

Q Can you show this Commission where in your wells of dual completion there is an interval of three thousand feet in dually completed oil wells?

A I cannot.

Q What is the maximum interval of dual oil completion on your Exhibit?

A About eighteen hundred feet I believe.

Q Now, in respect to packer failures, have you had any production

packer failures - the type of packer you run on your turbine?

A Yes.

Q Do you recall at the July 16th hearing I asked whether there had been any production packer failures and whether there had been anydual oil well packer failures?

A I do not know about the question of production packer failures, but I do remember your asking if we had a dual-dual packer failure.

Q How do you know a packer failure in a dual-dual oil completion?

A There are several ways you might identify it. You might catch it from a change in flowing of the two zones or change in capacity in stock tank return or in the gas oil ratio.

Q It is a matter of policing which is the realm of the operator, is that not correct?

A It is.

CROSS EXAMINATION

BY MR. MADOLE:

Q Mr. Washburn, you say in these seventy wells, you have never had a packer failure?

A No, I did not say that.

Q What did you say? What was the significance of your Exhibit?

A That is a list of Phillips dually completed wells.

Q You have had packer failures in these wells?

A I know of no instance in this bunch.

Q Have you investigated your records and checked on these wells in particular to see if they have had some packer failures or are you just relying on your general knowledge?

A I have not individually investigated them.

Q You do not know there have not been packer leaks?

A They have not been reported.

Q This information was not available at Bartlesville at the time of your previous testimony, is that right?

A Yes, sir.

Q Then the record of packer failures is not available to you at Bartlesville, is it?

A During my time in Bartlesville I have never known of any letter or correspondence or Report 903, in which a packer had failed.

Q But, to find out if there have been packer failures on these seventy wells, you would have to go to the district in which one was located?

A Yes.

Q And you have not done that, have you?

A No.

MR. MADDUX: That is all.

FURTHER CROSS EXAMINATION

BY MR. SELINGER:

Q On this list of dually completed oil wells that Phillips operates, how many have five and one-half inch casing?

A. I can only answer that for the part that covers West Texas. I have never worked in the Oklahoma Area. On all of the Ellenburger wells we use five and one-half inch casing. Goldsmith's are five inch to the best of my knowledge, but those shown in West Texas are five and one-half inch casings.

REDIRECT EXAMINATION

BY JUDGE FOSTER:

Q. If you had a packer failure, would a report be made up?

A. Yes.

Q. Where does that report go?

A. Through all channels and Bartlesville.

Q. And that would have been available to you, would it not?

A. Yes.

Q. And, in compiling your records, you did not find any reports of a packer failure?

A. No, sir.

RECROSS EXAMINATION

BY MR. MADOLE:

Q. Let us go back now. You stated at the previous hearing that you did not have available this information. Now, is that report made on dually completed wells to Bartlesville?

A. Yes, on individual wells it comes to Bartlesville.

Q. And that is on packer failures?

A. Yes, because that would come under reconditioning.

Q. But it was not at Bartlesville at the time of the last hearing?

A. I gave the date before in the previous hearing - that it was made January 1st. We get a report semi-annually. This is the July report which got into Bartlesville after the last hearing.

Q. Are you telling this Commission that every packer failure is reported and would be there at Bartlesville?

A. Yes.

Q. Then your testimony a minute ago - to find out about packer failures you would have to go to a District - is not correct?

A. I was in error. They do come to Bartlesville.

Q. To avoid a rehash, we would like to state to the Commission - he threw in this figure of 116,000 barrels, his previous testimony in the record - and we do not agree with that figure. There is testimony as to the payout on these wells in detail in the previous hearing, but we do not want, in any way, to be bound by this 116,000 figure, especially in view of the fact that it does not coincide at all with his testimony at the previous hearing. Are you going to accept that over our objection? If you are, then we want to break down that 116,000 figure.

COM. SPURRIER: We would like to have you break that down. Do you have a calculation on that 116,000 figure?

Q. (Mr. NADOLE:) How did you arrive at it? Can you outline it?

A. I used oil at $2.83. I took 7/8ths of that to deduct royalties, giving me a value of $2.476. I took 6.44% sales tax and various State taxes out.

Q. (MR. SELINGER): You mean gross production tax? Is that cents or percent?

A. That makes $2.476 oil worth $2.316. I assume a sixty cents per barrel lifting cost, which ends up with an oil, before income tax of $1.716 per gross barrel.

Q. (Mr. Madole): What after income tax?

A. These wells will not pay out. There is not any income tax on depletion allowance.

Q. You have $1.71 per barrel. What figure do you use for recovery?

A. I valued the Wolfcamp well at $200,000 and divided $200,000 by $1.716 and I got 116,000 barrels by slide rule. In my previous testimony I had considered income tax in that, which was why the value of my oil was less.

Q. Then you say your Fonzo would not pay out?

A. Yes, sir.

Q. Are you changing your testimony as to ultimate recovery from Fonzo?

A. I estimate Fonzo will produce 107,800 barrels.

Q. You used 120,000 before and the price of oil at $1.25.

A. I was in error but, again, I would have to pay income tax.

Q. How does income tax affect barrels to be recovered? You testified that 120,000 barrels of oil was going to be produced from your Fonzo?

A. I cannot check that figure. I cannot check it with the data given.

Q. I am asking about -

JUDGE FOSTER: He is not denying what he has said. He is saying that he will get 107,800 barrels from Fonzo.

Q. (MR. MADOLE:) Let me read from Page 5 of the transcript of the previous hearing: "Q. What would the estimated total recovery from the Fonzo No. 1 well?" "A. I would estimate the Fonzo would have approximately 3000 barrels per acre, or about 120,000 barrels on a 40-acre unit." Now you say 116,000 barrels will be your pay out. If you took 116,000 or 120,000, then Fonzo #1 will pay out?

A. On those figures it would pay out - yes, sir.

MR. MADOLE: That is all I have to ask.

MR. WASHBURN: I cannot get but thirty-five feet of porosity.

MR. MADOLE: Let me read again from the transcript: "How thick is the Wolfcamp pay sand in the Fonzo and the Denton Nos. 12 and 13 wells?" "A. I don't have a micro-log of those wells. We estimate the footage in the Fonzo is about 35 feet of productive porosity, and that the two Denton wells will have probably fifty feet of productive porosity." That is what you testified previously.

MR. WASHBURN: I probably had an error in my calculation. You take 35% and then take 6% in all our wells and multiply that and you will come out with 107,800 barrels I believe.

JUDGE FOSTER: Don't argue! Calculate it out!

MR. MADOLE: There has been a lot of arithmetic, but it is on a sliding basis!

Q. (By Mr. Madole) Will you give us a breakdown of this $200,000 cost of your well?

A. I base that on cost of wells we have drilled.

Q. Let us just get figures. How many tangibles and how many intangibles and how much did you charge to each?

A. I did not break it down that way. I went to the Accounting Department and got the actual cost of drilling six Wolfcamp wells.

Q. What was the footage cost?

A. I do not have that. I used the over all gross cost of drilling the well - the price it cost us. I have those cost estimates here.

MR. MADOLE: We got in that circle last time - estimates of actual cost.

MR. WASHBURN: I have actual costs.

MR. MADOLE: Let us have the actual costs.

MR. WASHBURN: Denton 4 - this was the first well drilled. I will give them in order here. Denton 4 cost $190,373.55. Denton 5 cost $168,644.33; Denton 8 cost $185,860.43; Denton 10 cost $176,359.95; Denton 11 cost $196,325.57; Denton 14 cost $210,616.24. The average was $188,030.01. The last two wells is what I used for my basis, because the location of Fonzo is not as good as these wells and we anticipate more trouble of completing the well.

Q. (By Mr. Madole) You said you used the six wells to calculate the $200,000?

A. The question was what it would cost to drill Fonzo. I think we got into this argument before.

Q. This $200,000 is your estimate and it is not the average of the six wells.

A. It is approximately the average of the last two wells drilled.

Q. Do you have the breakdown of the last two as to how much additional work was required in those wells in the way of mechanical difficulty?

A. It was mostly perforating and swabbing at this west edge and it takes more time to get a well in.

Q. Your tangibles remain constant?

A. Yes.

Q. Your intangibles?

A. At least 90% of increase is due to intangibles.

Q. What do you estimate of the $200,000 is intangibles?

A. About $160,000.00.

Q. You would get credit on your income tax for that approximately if your income was in the 50% bracket, you would get credit for $80,000.00.

A. If you want to drill a well that would not return your money you would. However, that is not a good way to operate.

Q. That is the $64.00 question in this. We do not agree with your figures, but, if you suffered this catastrophe, you would get about $80,000 credit on your income tax.

A. You would get to charge off all your intangibles the first year.

COM. SPURRIER: If no further question, the witness may be excused.

JUDGE FOSTER: I have not quite closed the case yet. Mr. Selinger had a witness he wanted to put on. I want to take up one other matter here to which I would like to call the Commission's attention. In Order R. 351 A, which is the Order of the Commission granting this rehearing and not the Order R 350 A, which is the Order granting the rehearing on another well. In each one of those Orders I called the Commission's attention to the fact that it says that Order R 350 was heretofore entered as of August 28th, 1953 and, in Order R 351 it says it was heretofore entered on August 28th, 1953. Now, it would indicate on the face of the Order that our application for rehearing was filed too late. That being purely a jurisdictional matter, I would like to get the matter straight and, for the purposes of this record, I want to say that on July 31st, 1953, Mr. Macey sent a telegram to Mr. Colley at Bartlesville saying our application to dually complete all four wells involved in the original hearing had been denied by the Commission and then, on September 8th, Mr. Macey wrote me a letter which I received on September 10th saying: "We enclose two signed copies each of orders issued in Cases 556, 557, 558 and 559 in which your company presented testimony at the July 16 hearing. Inasmuch as these orders are dated August 28, 1953 and you are not receiving them until this time, you may have until September 18 to file any request for rehearing which you may contemplate." Now, I would like to have that letter in the record as well as the telegram

I mentioned that is in the file here in this case, sent by Mr. Macey. I am not criticising anybody. I appreciate the notice given in the matter. I would also like to put into the record the duplicate signed originally by the Commission of Order R 350 and R 351, if I may do so. Now, the rest of the matter on the question which I have presented here will be handled by Mr. Kellahin, if the Commission please.

MR. WHITE: I might state that it is well for him to state on the record what he did, in view of the fact it recites in Order R 351 as to the date of the request being placed. In view of the fact that that date does not coincide with the filing of the order in the Commission's records, which was on or about the eighth of September, let the record show the order R 350 and 351 were entered of record on September 8th.

JUDGE FOSTER: I assume that is what happened and regardless of the date it is signed or allowed, it is effective as of the entry which is appearing as of September 8th. On the face of the order it shows the filing date, but that brings him well within twenty days. The date it was filed in Supreme Court was September 10th. If that stands as a fact, that is all right.

MR. WHITE: That will not truly reflect on the order itself.

JUDGE FOSTER: We had twenty days from which the order was entered on which to file our notice of rehearing. In view of Mr. White's statement, it is the statement by the Commission as to

the time the record reflects that the order was in and, if that is true, we have no further testimony to offer, if the Commission please.

COM. SPURRIER: The record is available, Judge, and Mr. White got his date from the record.

JUDGE FOSTER: If that is the record, that is it. I am satisfied. Mr. Kellahin was going to give testimony on it, but Mr. White has given that information.

MR. SELINGER: We now wish to renew our objection to the testimony given by the applicant as being all a part of the previous record of July 16th and we would like to have a ruling now on it - as to whether the Commission considers this new testimony or not.

COM. SPURRIER: Proceed with your witness, Mr. Selinger.

MR. WHITE: We are withholding our decision.

MR. SELINGER: Mr. Cooper, will you please take the stand?

J. D. COOPER

having been first duly sworn testified as follows:

DIRECT EXAMINATION

By Mr. Selinger:

Q. Will you please state your name?

A. J. D. Cooper

Q. With what Company are you associated?

A. Skelly Oil Company.

Q. In what capacity?

A. Petroleum Engineer.

Q. Mr. Cooper, you were here on July 16th covering this same application?

A. Yes.

Q. Does Skelly Oil Company have any Wolfcamp wells in the Denton field?

A. We have six.

Q. Have they all been drilled and completed?

A. Yes.

Q. And all producing?

A. Yes.

Mr. SELINGER: Will you please mark this as Skelly Exhibit No. 1 please?

(Skelly Exhibit No. 1 marked for identification.)

Q. I hand you what has been identified as Skelly Exhibit No. 1. Does that reflect the extent of Skelly Oil Company's operations in Denton field in a sort of report?

A. Yes, as far as Wolfcamp is concerned, yes.

Q. When was the first oil well started?

A. February of 1952.

Q. And the last well completed?

A. April of 1953. There was a total of six wells.

Q. How much was the average per well investment or cost of drilling a Wolfcamp well by the Skelly Oil Company?

A. The average cost was $147,476.

Q. What was the payout time per well?

A. Per well was about 12.7 months.

Q. I will ask you whether or not at this time Skelly Oil Company wells in the Wolfcamp in the Denton Field are paid out.

A. I cannot answer that directly, but based on a projection on the rate they would pay out as of June 30th, they should have paid out by October 1st.

Q. And the reason you cannot get definite information is the fact that all the bills are not all in and debited yet?

A. The bills, runs, and everything has not hit the books.

Q. But, from February, 1952 to April of 1953 and down to July 1st, you have had the benefit of six wells' production?

A. They were completed at various times and we have had their benefit. All six wells have not been producing for that period of time, however.

Q. Mr. Cooper, would you say the cost of drilling a Wolfcamp well, as far as the Skelly Oil Company is concerned, is an average of $147,000 plus?

A. Yes.

MR. SELINGER: That is all.

COM. SPURRIER: Any further questions of the witness?

(No further questions indicated)

COM. SPURRIER: If not, the witness may be excused.

MR. MADOLE: We understand the original record is part

of the case and also there will be included in the record as Magnolia's Exhibit No. 1, the accumulative runs from each of the wells in the Wolfcamp in the Denton field. Is that correct, sir?

COM. SPURRIER: Mr. Selinger's objection was overruled. You are asking if this evidence that is presented is accepted as new?

MR. MADOLE: I am just asking if the original record in the July hearing will be considered with this testimony and that we will be allowed to supply the accumulative production on the Wolfcamp wells as reflected from the records of this Commission which Mr. Macey is going to check and supply as our Exhibit No. 1.

COM. SPURRIER: Do you have anything else, Judge?

JUDGE FOSTER: I have a few remarks. I want to point out one or two things. Sooner or later it seems to me that this Commission must reach the point where it is willing to grant applications for dual completion of oil wells. I do not know whether you have got to that point in your thinking or not but, in any event, it is just the march of time. Everybody else is doing it. It is being done fairly successfully according to this record. Now I know that you will find packer failures. You will find them in oil wells that are dually completed - oil and gas wells. You find failures in anything that is mechanical but that is no reason for not permitting us to complete these wells. Now, airplanes fall out of the sky due to mechanical defects. Railroad signals fail causing

wrecks and the wrecks causing deaths. There are mechanical defects on automobiles, but, because of these mechanical failures, nobody would argue that you should stop flying, going on railroads or automobiles and it is just as logical to say that because there may be a mechanical failure in one of these packers, that you should not grant a dual completion of an oil well. It is in the record, if the Commission please, of the Phillips Petroleum Company's experience and that is all the experience we have had over ten years of dually completed wells - oil wells - not oil and gas, but dually completed oil wells, that we have not had any report of packer failures in those wells and we do not know of any reported packer failure in any wells that have caused any damage to the reservoir due to contamination in the two zones. It is all right to say that can happen but I am sure if there had been such instances that the opposition here, as strong as it is, would have dug it up and presented it to this Commission. They did not. They are simply content to argue that it could happen.

On the economic side of this picture, I do not know what kind of an operator Skelly is, but I know what a poor operator we are according to his figures, but it is in the record that any good, hard-headed business man who would go into this, would dual these wells. I think this Commission would be amply justified in finding that it would not be feasible to go out there and twin these wells. If that is the situation, then here is what you have got before you to consider. If you want to get that oil out of the ground, out of the Wolfcamp

formation, if it is not feasible, then it is only to get it out of the hole we have already got - the hole in the Devonian. If the Commission does not do that, then this record is clear and not denied that the productive oil that is in the Wolfcamp zone in these two wells will be produced by these offset operators - a large portion of it will. Some of it will not. That will be a loss for the people of the State of New Mexico. It will just stay there. We just ought to be practical and hardheaded about this thing. It would seem to me to protect the interest of our royalty owners, you should permit us to dually complete these wells and produce this oil that we can produce through a dually completed well and pay that royalty to the royalty owners and I believe that we have a legal obligation to the royalty owners, and, if it is not legal, it is certainly moral. We are trying to protect everybody's interest. What have the opposition here to lose? Just briefly, how can Skelly get hurt if this Commission grants this dual completion? What has Magnolia to lose? What has Shell to lose? What has Amerada to lose? It is no skin off their nose and why they are here fighting it is something I do not understand. Now the fact that they have twinned wells in the same formation of the same characteristics, etc. does not prove that every well should be twinned. Now, why is it that Magnolia objects to this? The reservoir is not being injured. They will get as many barrels of oil as they would ever get if you permitted us to twin these wells but, they will get a lot more, if you don't.

These things get pretty plain to me just what the issue is and you just deny us the right to dual these wells and get that productive oil under our land there and deny us the right to dual and that productive oil will go to these other operators in this field and that is not something you can just laugh off. I think we have shown this Commission, in good faith, the way we see it, that we cannot twin these wells and pay them out. There is a serious question about it. Sooner or later in New Mexico you are going to be dually completing these oil wells. I know there is some objection to dually completing wells, and I do not say you should establish a policy of dually completing wells, but it is only after you have found the facts and I think when the Commission sits down conscientiously and digests these facts, you would be amply justified to let us complete these two wells. We have done all we can to remove any question of doubt you have in your minds. If anybody has failed, perhaps it is me. There may be some argument about these figures, as to what it takes to pay out a well. Mr. Washburn told us when he used thirty-five feet and six percent that he was wrong and you will get 116,000 barrels of oil and that, multiplied out, gives you so many thousand dollars.

I respectfully ask this Commission to give serious consideration to our request and grant our application to dually complete these two wells.

MR. MADOLE: I am Ross Madole appearing on behalf of

Magnolia. I am not planning to make any lengthy statement, but Judge Foster is implying here that we are coming here with an evil intent to steal his oil. We are here to oppose the dual completion on the ground that it embodies risk to the reservoir. He says there is no direct evidence in this record of packer failure. Either he is not reading his mail right or I am not because -

JUDGE FOSTER: I did not mean to say there is no record of packer failure.

MR. MADOLE: We brought our engineer from Texas and proved to our satisfaction that we had suffered twelve packer failures over there in a field - a total of twelve failures, of which he attributed nine to packer failure. He further testified that he found evidence of injury to the reservoir. That is not conjecture. Now, Mr. Foster refers to planes and railroads and automobiles. You have rules and regulations of running those automobiles. If you are a safe driver you stay on the right side of the road. All we suggest is that they stay on the right side of the road and put another hole down in that field and they will experience no difficulty or injury to the Reservoir. He says we suffer no injury. If there is injury to the Reservoir, and we are directly offsetting those wells, we would be affected and if there was contamination in the Fort or Lonzo, it would adversely affect our wells. Now, he refers to the evil intent of Magnolia to come up and oppose his application so that we can steal his

oil. That is not true. We suspect that Judge Foster is using this Commission to wash a little dirty linen of his own - his royalty owners demands for drilling. If we are going to get into personalities and what is behind this, I think a full disclosure would reveal that they have had a demand for drilling these two Wolfcamp wells and that is the purpose of this hearing to avoid and try to tie down a possible lawsuit action in the Courts of New Mexico.

COM. SPURRIER: Do you wish to speak?

J. H. VICKERY: My name is J. H. Vickery and I represent the Atlantic Refining Company. Atlantic Refining Company has approximately twenty percent of Denton field and we have no objection to the application of Phillips Petroleum Company to dually complete their Fort No. 1 and Fonzo No. 1. Atlantic has found that dual oil completions have been feasible in other areas where the Company operates and I would like to go on record to favor dual oil completions in the State of New Mexico.

GEORGE W. SELINGER: If the Commission please, Skelly Oil Company wishes to renew its objection to Phillips Petroleum Company's application. The record of the previous hearing has been made part of this rehearing, but the reason we are objecting is not because we are going to get Phillips' oil, but we feel there is that danger of contamination, particularly in areas where you have possible water production and it has been brought out throughout the entire hearing there is both water in Wolfcamp

and Devonian. I also want to point out that the matter of policing is a difficult one. It rests entirely with the operator, and we think that is a very important consideration of this Commission - this policing. Outside of bottom hole tests and gas returns, there is no way that the State or offset operator can be advised of such contamination if it exists and that is our sole interest in opposing Phillips - the danger of contamination. If they wish to contaminate their property, that is their business, but, when it comes to a common reservoir, where we might get injured, that is our objection. We wish to particularly call this Commission's attention to it here. We have also indicated that their equipment was unproven at great depths where there is also a mixing interval in respect to five and one-half inch casing. I think all those things should be thought of by the Commission in regard to the State as a whole and particularly to the Denton pool.

D. W. NESTOR: My name is D. W. Nestor and I represent Shell Oil Company. As explained before, even though we are part owners with the Phillips Petroleum Company in the Fonzo and Fort wells, we refer again to our previous statement and ask that their request for dually completing these wells be denied.

JUDGE FOSTER: Before we close, I would like the record to show that Mr. White is the attorney for the Commission. May that be shown?

COL. SPURRIER: Yes. If there is nothing further, we will take the case under advisement.

CASE 558:

In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Denton Well No. 12, SW/4 NW/4 Section 11, Township 15 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,600 to 12,700 feet, and oil from the Wolfcamp formation after perforating 9590 to 9230 feet.

CASE 559:

In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Denton Well No. 13, NW/4 NW/4 Section 11, Township 15 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,580 to 12,730 feet, and oil from the Wolfcamp formation after perforating 9580 to 9150 feet.

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MR. SPURRIER: We will move on to the next case on the docket.

I believe we can consolidate Cases 556 through 559. Without objection, we will try to do that.

(Mr. Graham reads the advertisement of the cases.)

(Off the record.)

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E. N. WASHBURN,

having been first duly sworn testified as follows:

DIRECT EXAMINATION

BY MR. PEACOCK:

Q Please state your name.

A E. N. Washburn.

Q And your address?

A Bartlesville, Oklahoma.

Q By whom are you employed?

A Phillips Petroleum Company.

Q For how long?

A I am working my twentieth year.

Q In what capacity?

A Engineer; petroleum engineer.

Q Have you testified before this Commission before?

A I have.

MR. PEACOCK: Is the Commission satisfied with Mr. Washburn's qualifications?

MR. SPURRIER: It is.

Q Mr. Washburn, for the record, we will be discussing the four wells concerned in the four cases Nos. 556 through 559. These wells will be generally denominated as the Fort No. 1, the Fonzo No. 1, the Denton No. 12 and the Denton No. 13. Are you familiar with these wells?

A Yes, sir, I am.

Q Are these producing oil wells at this time?

A Yes, sir.

Q From what formation do they produce?

A All four are presently Devonian wells.

Q At what depth is the Devonian formation?

A At approximately 12,500 feet.

Q How thick, measuring vertically, is the Devonian?

A In these wells in question: The Fort has approximately 147 feet of Devonian; the Fonzo has approximately 365 feet; and the Denton 13 has 948 feet; and the Denton No. 12 has about 620 feet. That is productive footage. It is approximately 200 feet more than that in the actual Devonian formation.

Q Are these presently flowing wells?

A They are.

Q Does the Wolfcamp formation lie above the Devonian formation in each of these wells?

A Yes, sir.

Q At what depth does the Wolfcamp lie?

A Approximately 9250 average.

Q How thick is the estimated Wolfcamp pay in the Fort No. 1?

A The productive footage is approximately 22 feet.

Q Do you have micro-log which reveals that information?

A We do.

MR. PEACOCK: I offer this micro-log in evidence

as Applicant's Exhibit 1.

Q Will you examine this micro-log section on the Fort No. 1 and, for the record, point out approximately the pay sands revealed by this micro-log in the Wolfcamp?

A The zone that we propose to perforate would be considerably more footage than the micro-log shows is actual porosity. We do that mainly so that we will get it all. The first zone is between 9645 and 9680, in which - it possibly goes below water-oil contact, and we have approximately five feet of porosity.

The second zone is 9580 to 9610, which contains approximately thirteen feet of porosity.

The third zone is 9500 to 9550, which contains approximately fifteen feet of porosity.

And the upper zone is 9360 to 9460, 100 feet of perforation for five feet of porosity. The porosity totals to about 38 feet.

But, based on examination of other cores from the Wolfcamp, we estimate about 22 feet, about two-thirds of that will be productive.

Q How thick is the Wolfcamp pay sand in the Fonzo and the Denton Nos. 12 and 13 wells?

A I don't have a micro-log of those wells. We estimate the footage in the Fonzo is about 35 feet of productive porosity, and that the two Denton wells will have probably

fifty feet of productive porosity.

Q Other than what you have told us about the conclusions of the Wolfcamp formation, is there any additional information that you have concerning the quality of the Wolfcamp formation in this area?

A You refer to its recovery?

Q Is it lime or --

A It is a lime, embedded with shale streaks.

Q Is it considered a tight formation in this area we are concerned with?

A Yes, it is considered tight.

Q What is the estimated total recovery from the Wolfcamp sand in the Fort No. 1?

A It is generally, from information that we have, we estimate recovery will be approximately 77 barrels per acre foot.

In the Fort well it would have a recovery of approximately 1700 barrels per acres.

Q And the Fort is on a 40-acre unit?

A 40-acre unit, which would give it a recovery of approximately about 68,000 barrels.

Q What would be the estimated total recovery from the Fonzo No. 1 well?

A I would estimate the Fonzo would have approximately 3000 barrels per acre, or about 120,000 barrels on a

40-acre unit.

Q Would the Denton No. 12 -- Do you have figures on the Denton No. 12 and 13?

A They would probably have a recovery of about 4500 barrels per acre, or about 180,000 barrels for the 40-acre unit.

Q What would a 12,000 foot well such as the four wells under consideration cost to drill?

A The Devonian wells are priced about $320,000 each.

Q Does that include storage, taxes and lease cost?

A No, it doesn't.

Q What would it cost to complete a well to the Wolfcamp formation on these four units under discussion?

A Based on the price of six Wolfcamp wells we have drilled in the Denton field, about $200,000.

Q Does that include storage, taxes and lease cost?

A No.

Q What would it cost to dually complete these four wells? That is, the Fort No. 1, the Fonzo and the Dentons 12 and 13, so that they could be produced both from the Devonian and the Wolfcamp formations?

A That price will vary. Probably thirty to forty thousand dollars.

Q Could it run slightly more or slightly less?

A It could run slightly more and with good success, it could be a little less.

Q The estimated total recovery from the Wolfcamp formation in the Fort No. 1 unit is - which you gave us a while ago - is that sufficient to pay back the drilling cost of another well completed to the Wolfcamp formation on that unit?

A No, sir, it isn't.

Q What can you say about the Fonzo No. 1 with relation to the estimated total recovery balanced against the drilling cost of a single well there?

A Considering lifting cost, royalties, production tax, income tax, and taking credit for depletion allowance, there possibly would be a break-even deal, not discounting your money that would be tied up for that period.

6b Q How long is the estimated economic life of the Devonian pay sand in this area?

A The Devonian is estimated to have a thirty to fifty year life. It may exceed that.

Q Now, these four wells which are now producing from the Devonian, are they flowing wells at this time?

A Yes, sir.

Q Is it your opinion they will continue to be flowing wells for as long as they are produced from the Devonian?

A No; they eventually would have to be artificially lifted.

Q Have you an opinion concerning the time at which artificial lifting methods must be applied to this Devonian sand?

A No, sir. I would say that it would be reasonable to expect the flowing life of the Devonian, most of the Devonian, will be flowing by the time the Wolfcamp is abandoned.

Q What is your opinion as to the economic life of the Wolfcamp in this area?

A The Wolfcamp in various studies has been estimated to be approximately ten years.

Q Is the Wolfcamp presently produced by flowing?

A Yes, sir.

Q Will it be able to be produced in that manner during the economic life of that Wolfcamp formation, or must artificial lifting means be applied there at some future date?

A Artificial lift will be required at a later date.

Q Therefore, is it your conclusion that the Wolfcamp will be depleted; that is, it will be at the end of its economic life before it is necessary to artificially lift the oil from the Devonian?

A That is a reasonable assumption; yes, sir, that's right.

Q Upon what do you base that?

A On various studies that we have made.

Q What is the difference in the bottomhole pressure between the Devonian and the Wolfcamp in the wells in this area?

A The Wolfcamp has approximately 3200 pounds and the Devonian has approximately 4500 pounds.

Q Will that pressure decrease as the fields are produced?

A The Wolfcamp pressure is declining at a faster rate than the Devonian.

Q Is the Wolfcamp and the Devonian oil corrosive?

A No; they are considered both sweet oil.

Q Is it considered that they will materially affect the seals which are placed outside the casing and at other places in dual completions?

A We wouldn't expect it to.

Q Has the Wolfcamp formation been sealed off from the Devonian in these four wells outside the casing?

A The wells have been cemented by two-stage cement jobs, using approximately six to eight barrels - I mean six to eight hundred bags - of cement.

In three casing temperature surveys, which were made after the second stage cement job, the cement was found between 2000 and 5000 feet.

In the Fort well 150 sacks were cemented and cir-

culated outside of the casing.

Q Is there any communication between the Devonian and the Wolfcamp in these wells?

A I can't answer that. We don't think there is.

Q Would an additional test for communication be made prior to the installation of any dual completion on these wells?

A That would be the standard procedure in dual completing a well, to run a retrievable packer to test communication outside the pipe before setting the permanent packer.

Q Will you explain what you mean by dual completion?

A The process of separating two zones by a form of packer and having a cross-over flow nozzle where you can arbitrarily produce either zone through either the annulus or the tubing.

Q What size casing is in each of these four wells?

A All have 5½-inch casing.

Q What type of equipment is it proposed that would be used in dually completing these wells? That is, the equipment of what companies?

A We propose to use the Baker production packer and the Otis cross-over nipples.

Q Now, have you prepared exhibits which represent a true schematic cutaway view of the proposed dual completion

using Baker-Otis equipment?

A Yes, sir.

MR. PEACOCK: I would like to offer in evidence these schematic drawings as Applicant's Exhibits 2, 3, 4 and 5. Those are - There is one drawing for each of the wells under consideration.

MR. SPURRIER: Without objection, they will be admitted.

(Off the record.)

Q Will the methods shown allow oil to be flowed from both the Devonian and Wolfcamp formations in these wells without commingling?

A Yes, sir.

Q Is it proposed to measure the oil produced from each formation separately?

A It is.

Q Will you describe briefly the method proposed to perforate the casing to produce from the Wolfcamp?

A I previously covered that. Our geological department has picked four zones in each of the wells they would like to perforate and in order that we may get all the productive porosity in the well. Those four zones are shown on the left of each of the exhibits. It should be understood if any zone shows water, that that zone would be squeezed off. We may have one of the four zones squeezed

off. The first zone is possibly the water zone. It is the lowest zone.

Q Have you prepared an exhibit which represents a schematic cross section view of your dual completion equipment which would allow pumping from the top zone and gas lifting or flowing from the bottom zone of such a well?

A Yes, sir.

MR. PEACOCK: We would like to offer in evidence this Applicant's Exhibit 6.

Q Now, do all of these schematic drawings represent cutaway views of the proposed Baker-Otis dual completion equipment which we intend to use in dually completing these wells?

A The Baker-Otis equipment is the same. This combination on this last exhibit would not necessarily have to be used. There is all reason to believe that only one zone at a time would have to be artificially lifted in each of these four wells.

Q Is your reason for such belief that it is your opinion that the Wolfcamp will be depleted prior to the time that it will be necessary to pump the Devonian?

A That's right.

Q This Exhibit 6 represents a Kobe hydraulic pump. Is that the only type pump which may be used in a dual completion?

A No, sir. There is several combinations you could use if you had to artificially lift both zones at the same time. This is one.

Q Then you do not present this as the only possible means for artificially lifting oil from either or both zones?

A No, sir, although this arrangement is being used successfully in other wells, not by Phillips.

Q Can remedial work be done on a dual completion well such as squeezing and acidizing and other types of remedial work along those lines?

A Yes, sir.

Q How many dual completion wells does Phillips Petroleum Company have now?

A 122 dually completed wells.

Q How many of these dual completion wells are oil-oil?

A 51 at last count.

Q Does a dual completion represent a saving in steel?

A Yes, sir.

Q Over the drilling of two wells?

A In this case about 80 to 100 times.

MR. PEACOCK: That is all I have from Mr. Washburn.

MR. SPURRIER: Do you have another witness?

MR. PEACOCK: Yes, sir; I have two other witnesses.

MR. SPURRIER: Would you like to put them on now, or take the cross examination first?

MR. PEACOCK: Well, these other two will explain briefly the Baker-Otis equipment.

(Off the record.)

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CROSS EXAMINATION

BY MR. SELINGER:

Q Mr. Washburn -- For the record, my name is George Selinger, and I represent the Skelly Oil Company. -- Mr. Washburn, I didn't -- In your original testimony I didn't get quite the 50 some odd dual completions you have. Is that Phillips Petroleum Company, your operation?

A 51 oil-oil dual completions in all their operations.

Q Where do they lie mostly, just generally?

A There is about 25 of them in the Oklahoma area around the Ardmore area.

There are 37 of them in the West Texas area, and the remaining are in Louisiana and the Gulf Coast.

Q How many of your dual completions in Oklahoma are as deep as 12,000 feet?

A There is none of them I know of that deep.

Q Are there any 9000 feet, 9400 feet, in Oklahoma?

A No, sir.

Q Now, how many of your dual completions in West Texas are at 12,000 feet?

A I don't know the exact number. There is some.

Q Do you know of any that are at 9400 feet?

A Yes, sir.

Q Now, how many in Louisiana or the Gulf Coast of Texas are at 12,000 feet?

A The Gulf Coast is mostly around five and six thousand feet.

Q Do you have any dual completions at 12,000 feet in the Gulf Coast?

A I don't have any and I don't intend to have; no, sir, we don't.

Q You don't have any. Now, with respect to the Denton pool, you estimate you had 50 feet of effective pay inthe Wolfcamp in your Nos. 12 and 13 Denton; is that correct?

A Yes, sir.

Q Approximately. Now, to the east of - to the east on your twin wells drilled to the Wolfcamp, how many effective feet of pay do you have in those wells?

A I don't have that information here.

Q Is it more or less the same?

A The average for the field is about 53.

Q The average for the field is about 53, and these are 50.

A Yes, sir; approximately fifty feet. That is generous.

Q Well, then, insofar as Nos. 13 and -- 12 and 13 -- are concerned on the Denton lease, they are not below the average of pay thicknesses of the Wolfcamp producers.

A No, sir; they may be a little.

Q Now, you estimate you will recover 180,000 barrels of oil from each, approximately?

A Yes, sir.

Q You are saying those two wells will be uneconomic wells?

A No, sir; I am not.

Q Let's take the Fonzo well; you estimate you have 35 feet of effective pay in the Wolfcamp.

A Yes, sir.

Q Are there any offset wells to this well producing from the Wolfcamp?

A I believe there is one to the north. I don't have a map in front of me.

Q One to the north.

A My recollection is there is.

Q Do you know how much effective pay that well has in

the Wolfcamp?

A Not for sure; no, sir.

Q Is it more or less than what you estimate for your wells?

A I would estimate it approximately the same.

Q Is it a dual completion or a twin drilled well to the Wolfcamp?

A It is a twin well.

Q Who operates that?

A Magnolia.

Q I presume it is admitted there are no dually completed wells in the Denton pool; is that correct?

A That's right.

Q And this is the first attempt to secure dual completions for oil-oil in this field?

A The first to my knowledge.

7b Q Do you know how many Wolfcamp wells have been drilled in this field? If the latest records of the Commission indicate 96, is that approximately correct?

A I think it is.

Q In the neighborhood of 100 wells,

A I was thinking 93.

Q Do you know how many Devonian wells have been drilled?

A No, sir.

Q If the Commission records indicate 142, that is just about right?

A I have that information here. I can't find my information. I assume you're right.

Q That is all right. We can pass on and furnish that later. Now, all of the Wolfcamp wells that have been drilled have been drilled as twin wells to the Devonian, have they not?

A Yes, sir.

Q Now, with respect to the Fonzo No. 1. What is your opinion as to whether or not that is an economic well or an uneconomic well for the Wolfcamp?

A I would estimate the Fonzo was probably a break-even deal.

Q It isn't an uneconomic well in the sense of the term it will not pay back its drilling costs and operation?

A I don't think it would pay back its money if it was discounted.

Q You mean for profit and lease overhead. But I am talking about actual drilling cost and the cost of operations, physical field operations, and you are not saying to this Commission it will not pay that money back.

A It would probably be a break-even deal. It would probably pay the $200,000 back.

Q Are you figuring that 120,000 barrels at the latest price increase your company instituted?

A Yes, sir.

Q Now, Mr. Washburn, with respect to the actual mechanical means of dual completion, I believe you said all four of these wells are completed with 5½-inch OD casing; is that right?

A That's right.

Q And you estimate the flowing life of the Wolfcamp to be comparatively short, particularly as compared to the Devonian?

A Yes, sir.

Q Now, can you tell this Commission which of the horizons are producing water, if any?

A There is a little water being produced in each zone. The water in the Wolfcamp is more to the southeast.

Q Would you say that the Wolfcamp zone will eventually have more water productive each day as time goes on, rather than the Devonian?

A I would say the Devonian would probably produce more water.

Q To a larger extent than the Wolfcamp?

A Yes, sir.

Q Now, with respect to your 5½-inch casing, insofar as both zones produce, you will use the normal packer setting

and normal production of the deeper pay in the tubing, and the shallow pay between the annulus of the tubing and the casing?

A No, sir; I would flow the weak formation, the Wolfcamp, through the tubing, because I feel it will be the first to have to be pumped and we would be set for it.

Q And you would immediately have to set over a cross-over packer; is that correct?

A Yes, sir.

Q Would the likelihood of flowing be within the space of a year or two years, or three years, so far as the Wolfcamp is concerned?

A That will vary with the well. With the little section we have in the Fort, I would expect artificial lift to be required in one or two years. That is purely a guess.

Q When artificial lift is required, then you would use your diagramatic sketch, which is colored in yellow and red --

A I would continue to let the lower zone flow through the casing and with the conventional pump, pump the tubing.

Q How do you do that, pump one zone and flow the other, or is it necessary -- what is it necessary to do to the well mechanically?

A I don't know, other than setting artificial lift equipment.

Q Within your 5½-inch casing, what equipment would you have to put into the well - one string of tubing, two strings, or a macaroni?

A You will have several pieces. In the case shown, it would probably be a macaroni, Kobe conventional pump; or go to rods and put a conventional pump in, or go to the damper type pump, which is a hydraulic pump with a conventional engine.

Q When you go to rods, would you attempt to pump the oil from the 9400 foot or 12,000 foot --

A We are doing it every day.

Q In New Mexico?

A Just a little east of it, in West Texas.

Q Now, with respect to your gas lifting at 9000 and at 12,000 feet, have you made any estimates of the cost of gas injection for such gas lift?

A No, sir.

Q Can you tell this Commission whether or not such a means of operation is economic at those great depths?

A It would all depend on the allowable.

Q Well, suppose the present allowable.

A I mean on the -- Present production would be economical if that was the way you had to go.

Q What is the present allowable?

A In the Devonian?

Q No; the Wolfcamp.

A 170 barrels in the Wolfcamp.

Q Do you believe that any of those four wells will be top allowable wells?

A I can't answer that. All the Wolfcamp wells we have drilled so far have been. Possibly the two of them would be. The two Denton wells; and it is possible the other two might come in potential 170.

Q Have you figured -- Suppose that 170 barrels of oil allowable, have you estimated the volume of gas necessary to gas lift at a depth of 9000 and 12,000?

A When you have the artificial lifting of both zones, I believe - is that right?

Q Pick either one. If you want to use the first zone that ceases to flow, you can. Go ahead and do that if you desire.

A I haven't made calculations on the cost of gas lift.

Q At such depths with such pressures, would it take a comparably large or small volumeof gas?

A It would take approximately 2000 cubic feet per barrel, as a guess.

Q Total gas, or over and above formation gas?

A Over and above formation gas.

Q What is the total volume of gas necessary to lift a barrel of oil now in the field from the Wolfcamp?

A Well, that was in it, if that is what you are getting at. Total solution gas?

Q No. What is the average gas-oil ratio now?

A Around 300, I believe, for the -- Well, I have it here. The gas-oil ratio in the Wolfcamp is running about fourteen, sixteen hundred. And the Devonian is running about 700.

Q Now that you have given the information with respect to the Wolfcamp, let's assume you have to artificially lift both the Devonian and the Wolfcamp. How much gas would it take to produce the top allowable for both horizons, as your first premise, if you can answer that?

A I don't have those figures. It is feasible to gas lift at those depths because it is being done. But I am not limited to gas lift. I can go to rods or hydraulic pumps also.

Q Let's assume gas lift. Would you be able to recover 170 barrels from one horizon and the larger allowable from the other horizon on gas lift?

A No, sir, but it is doubtful when artificial lifting comes you would have that full allowable.

Q Now, your 5½-inch casing, what size strings would you use within the well bore?

A It would depend on what is the situation. You want to lift both zones, now?

Q Yes.

A I would probably run 2-inch tubing and -- Well, if I was going to use rod pumps, I would run 2½-inch tubing; an Otis dual pump, run 2½-inch tubing. If going to have hydraulic, I would put a conventional hydraulic pump in, a conventional Kobe, and run 3-inch tubing with three-quarter macaroni string. And if I had gas lift on the outside, I would run 1-inch on the outside of that.

Q With that equipment in the hole, would there be any restriction mechanically as to the amount of oil that could be produced?

A In the Kobe you have a capacity of 150 to 175 barrels. This depends on what the lift is. You have got it at the extreme, which is what you want, I assume. No bottomhole pressure existing. Probably 150 or 170 barrels through Kobe equipment. And on the gas lift side, have an area equipped through 4-inch tubing. In your annulus, if you want to throw your macaroni, you could gas lift 70 to 80 barrels a day.

Q Where would the point of greatest restriction be in an installation like that? In the first place, would

there be any points of restriction in the production of oil? I believe you answered yes.

A The lowest capacity would be your Kobe equipment.

Q Where would the points of greatest restriction be in that installation on a Kobe pump?

A I don't know what that word "restriction" means.

Q You said that the equipment would restrict the volume of oil that could be produced.

A Yes, sir; it would be in the conventional Kobe equipment.

Q Now, having the most favorable equipment in your well, could you tell this Commission, if dually completing these wells to the Devonian and Wolfcamp from now until the end of time insofar as productionwise is concerned, you would recover more or less oil if you twinned a well to each of the two formations? What is your considered opinion?

A Well, recovery --

Q Where would you recover the more oil? We are talking about the recovery of oil only.

A Recovery of oil, it wouldn't make any difference. I could do justas much -- the way I think the field will perform -- I could do just as good in a dual well as a twin well, just about.

Q Even though in the dual completion well you have

in your 5½-inch casing in one instance, I believe you said, an inch and a half and an inch and a quarter, and in another instance two inches and one and a half inches?

A I will have that at the time when the volumes being handled will be considerably less than they are now, at least in one zone.

Q So, in your opinion, the total recovery would not be any different between the dual completions and the twins drilled in these two horizons in this field? Is that your answer?

A Yes, sir; if the field performs like I think it will.

Q If you want to rework a singly completed well as compared to a dually completed well, what differences are there in such reworking, if any?

A There is a little more. It is more expensive in the dual well.

Q Would you lose any appreciable amount of oil every time you reworked a dually completed well, whether from one horizon to the other horizon?

A I don't see why you would.

Q You wouldn't be required to shut down production from the Devonian, for example, --

A Yes, I see what you are getting at. You would lose your allowable at that time.

8b

Q You would be shut down to the extent it takes to rework the Wolfcamp?

A Yes, sir.

Q If these are uneconomic wells as you say they are, and every time you shut down for the Wolfcamp production the other production is lost, or if you shut down for the Devonian to rework the Devonian well, whatever production is secured from the Wolfcamp is lost insofar as that deep production is concerned, if it isn't a top allowable well - is that correct?

A Yes, sir.

Q Do you anticipate any reworking of dually completed wells if the Commission permits you to dually complete these wells?

A There may be one reworking in the Devonian coming up, because we are completed low. As water encroaches, we will have to go back and complete in the top of the zone.

Q In your original testimony, you testified as to the bottomhole pressure of the Wolfcamp and the bottomhole pressure of the Devonian. What was that difference in bottomhole pressure?

A I believe about fifteen or seventeen hundred pounds.

Q Difference?

A Yes, sir.

Q And I believe you said the bottomhole pressure on

the Wolfcamp was declining more rapidly than the Devonian; is that correct?

A Yes, sir.

Q And therefore the 1700 pounds pressure differential will be markedly increased as time goes on; is that correct?

A I won't say markedly. It will be increased.

Q It will be increased from the difference of 1700 pounds, it will be more than 1700 pounds?

A Yes, sir.

Q In your installation picture you have given to the Commission, do you believe there is any danger about having so much pressure across your packers?

A No, sir, I don't. That testimony will come in later, on how much differential you can handle on a packer.

Q I am asking you as an engineer. You don't believe there is any danger of 2200 pounds pressure differential across the packer?

A We are using this packer in the Fort Stockton area with 9000 pounds across it.

Q Have you ever had any trouble with such packers with such pressures across?

A No, sir. That is one case I know of without trouble.

Q Have you ever had any packer leaking or failing?

A Yes, sir, but they can be detected.

Q How can they be detected here in this case?

A There is packer tests which should be run periodically, or can be run periodically, by shutting in and pressuring up both zones.

Q How often should those periodic tests take place?

A At any time you suspect a leak.

Q I will ask you one final question, Mr. Washburn. Would you, as a cautious operator, as I know Phillips is, in any way jeopardize the better formation, the Devonian, by any attempted dual completions, would you ever have any doubts as to protection of the Devonian formation from the Wolfcamp?

A Rephrase that. I don't catch it.

Q I will rephrase it. Do you think there is any doubt of no harm being done to the better formation, the Devonian, by your dual completion installation with the Wolfcamp?

A If we were afraid of damaging, we wouldn't have asked for this hearing at all.

MR. SELINGER: That's all.

(Off the record.)

MR. SPURRIER: We will recess until 1:30.

(Noon recess.)

MR. SELINGER: Mr. Spurrier, may I add, for the record, insofar as the number of wells completed in the Devonian, there are 66 completed in the Devonian and 48 completed in the Wolfcamp. I wanted the record to be correct to that extent.

I wanted to ask Mr. Washburn one more question.

Q I asked with respect to the north offset to the Fonzo and you said Magnolia had a twin Wolfcamp well as a north offset to the Fonzo. Isn't that true of the Fort No. 1, that Magnolia has a twin Wolfcamp north of that well also?

A That's right, sir.

CROSS EXAMINATION BY MR. MADOLE:

MR. MADOLE: Ross Madole, on behalf of Magnolia Petroleum Company.

Q Mr. Washburn, before we start on these particular facts, is the basis of Phillips' contention in these cases that the economics don't justify the drilling of twin wells?

A In this particular instance, yes, sir.

Q Is that the basis of your applications?

A Pertaining especially to Fort No. 1.

Q What is the basis with reference to the others?

A That we can recover as much oil by dual completing as we could by twinning and save money and critical material

doing it.

Q You have no fear of damage to the reservoir?

A No, sir.

Q Has that been Phillips' position in previous hearings before the Commission?

A No, sir; it hasn't.

Q What has been Phillips' position before the Commission at the other hearings?

A You mean before this New Mexico --

Q Yes, sir.

A I am not familiar. When I said no, sir, I was referring to Texas.

Q Isn't it true in previous hearings before the Commission Phillips has been opposed to dual completions generally unless the economics of the pool as distinguished from the well didn't justify the drilling of an additional well?

A I have never run into that testimony, as far as the State of New Mexico is concerned. I can't answer that.

Q I would like to refer to the record in Cases No. 92, 93 and 94 in relation to the Hobbs Pool, Lea County, New Mexico, and the application of Gulf Oil Corporation, for dual completions of oil-oil formations. Judge Foster, on behalf of Phillips, made this statement:

"We are not opposed to dual completions generally but we do think each one should stand on its own merits. I have a statement to present to the Commission.

"Under ordinary competitive peacetime operations, we believe the production of two oil reservoirs by means of a dual completion is in general unwise and should be definitely discouraged in almost all future instances. There is little doubt in the vast majority of cases such practice will lend to smaller ultimate recovery of oil from at least one of the reservoirs involved. In addition, we feel added operating problems are numerous and dangerous, and far outweigh any savings that might be realized in the initial development cost.

"It is likewise perfectly obvious to us that producing oil through the annulus is inefficient and will certainly result in shortening the flowing life of the wells.

"We further believe with proper well spacing it is entirely possible to economically develop each producing oil reservoir in a field on an individual well basis, thus mostly eliminating the need for dual completions.

"There are some instances where extremely thin sand sections or rim reservoirs cannot be spaced in a manner to permit individual well development of each oil reservoir. Under such circumstances, if for this class of production, it is considered necessary dual completions might likely be the solution of the problem.

"When development is being carried on with conjunction of a plan of controlled pressure maintenance, there are undoubtedly certain other instances where dual completions might be amply justified.

"Dual oil-gas and dual gas-gas completions are not so susceptible to the many problems consistently found in dual completions of oil-oil wells.

"We therefore feel that the range of application is considerably broader and should be looked upon with greater general favor. However, it is suggested that even in this type of dual completion, each case should stand on its own merits.

"In conclusion, we would like to urge the Commission to adopt the policy of holding hearings and carefully checking each well application

for all types of dual completion and permits be issued only after suitable evidence has been received."

Now, there is no pressure maintenance in the Denton field, is there?

A No, sir.

Q Then, if your policy at that time is the same as now, then the only factor would be the factor of economics? Are you still in accord with that general statement?

A That is no longer Phillips' policy. I believe they believe in oil-oil dual completions. Would you tell me what date that bears?

Q I would be glad to, sir. The meeting was on the fifteenth of April, 1947, in the Coronado Room of the La Fonda Hotel, Santa Fe, New Mexico.

A There has been a considerable improvement in the technique of both manufacturers and the operators since that day.

Q You have no fear of reservoir damage by dual completions?

A No, sir.

Q Now, on your dual completions you testified Phillips Petroleum Company had 51 dual completions.

A They operate 51.

Q Are any of those in the West Texas fields?

A Yes, sir.

Q Where are they located?

A Most of them are in the TXL Field.

Q Is that a carbonated crude?

A Sir?

Q Is that a carbonated reservoir?

A Carbonated?

Q Yes, sir.

A I don't know what you mean by that.

Q A little sour.

A Yes, sir.

Q Have you had any experience which would indicate to you that dual completion is not effective in those fields that have a sour crude?

A We have none of those oil-oil wells there being dual pumped. We have several wells in one zone. The lower zone mostly, the Embar-Ellenberger. And we have no well trouble - no more trouble with those than ordinary single completions.

Q But you are having packer trouble?

A No, sir.

Q You have had no packer failures in those wells?

A We have had no packer failures once we get one set right.

Q When is your definition "when you get it set"?

A When we move the rig away.

Q When you move the rig away. Have you ever set a packer at 12,000 feet in those wells?

A No, sir.

Q Can you tell me that in a crooked hole, which necessarily you will have a floating hole, that you can set a packer at 12,000 feet without any danger of packer failure?

A I can't say it positively, but it is being done by you and by us.

Q I think we will put on testimony to refute the effectiveness of the packer. But I want to know your experience now. Have you had any field packer failures there? You said about single completions. Do you set packers in your single completions?

A Not this type of packer; no, sir.

Q You don't have any more because you don't have any in the single completions?

A Don't have --

Q -- any packer problems because you don't have any packers there, do you?

A No, sir.

Q Now, in these dual completions you say you don't have any more? Let's see how much -- how much packer failures you have experienced in your fields in West Texas?

A By packer failure you mean initial failure, or before the well is put on production?

Q I mean after production, while you are producing it, while you have a packer leak.

9b A We have no record in the Bartlesville office of such a failure - such a packer leak - after the well has been put on production.

Q How long have they been on production?

A The oldest one I can remember is probably three or four years.

Q Don't you know the average life of a packer at its best in corrosive crude of that nature is two and a half to three years? Is usually the maximum life of a packer.

A I certainly don't know that.

Q You don't?

A No, sir.

MR. PEACOCK: Mr. Spurrier, we testified here this oil from the Wolfcamp and from the Devonian isn't corrosive. Mr. Washburn has testified that the oil in the Wolfcamp and the Devonian isn't corrosive.

MR. MADOLE: That is his statement. We will prove otherwise.

Q Since you have gotten to that point, I will ask you how many grains of hydrogen sulfide is found in the

Devonian in the Denton field?

A In the gas? It is classified as sweet.

Q I didn't ask that. I asked how many grains you have got in it?

A If it is sweet, it is less than ten.

Q How about the Wolfcamp?

A I would say it is ten or less.

Q Have you ever run any tests for the hydrogen sulfide content of that pool?

A I have seen reports. I have seen refinery production reports on the evaluation of the Denton Devonian and the Denton Wolfcamp.

Q But you have made no actual test of the pool itself?

A No, sir.

Q Have you ever smelled any of it?

A I have on the batteries; yes, sir.

Q Did you smell any sulphur in it?

A No, sir.

Q Smelled as sweet as the growing flowers, did it?

A Yes, sir.

Q Do you have a paraffin in the production?

A Yes, sir; you have paraffin, especially in the Devonian.

Q High?

A It is classed as a paraffin intermediate base crude.

Q That will affect your dual completions, won't it?

A Paraffin is just like packer troubles. They are magnified considerably. If you recognize you haveparaffin, it can be handled. There are ways of handling it.

Q Then you recognize packer troubles?

A I was using it for your example.

Q Well, we certainly recognize it. Are you familiar with the Dollarhide Field in West Texas?

A No, sir.

Q You have never made any studies of that production?

A No, sir.

Q Or those dual completions?

A Nothing elaborate.

Q With reference to the Devonian, I think you have testified there is an effective water drive; is that correct?

A Appears to be one.

Q Now, in figuring these figures you gave as to the ultimate recovery, what was your efficiency rate that you used in the Devonian?

A I didn't give figures on recovery of the Devonian, I don't believe.

Q Well, have you made any calculation of the recovery in the Devonian?

A I could get them.

Q Well, you testified that these wells were going to last twenty or thirty years. You ought to have some - I don't want any details - but isn't it true that the efficiency rate used in the Devonian by the engineering committee is approximately 60%?

A I believe that's right.

Q Now, you did give some figures in the Wolfcamp?

A Yes.

Q As to recovery?

A Yes.

Q What efficiency rate did you use there?

A I used it only in a solution gas drive of about 25%.

Q Now, don't you find some evidence of a water drive exists in the Wolfcamp?

A There is indications of one being to the southeast part of the field.

Q You made a statement that there was some water found down there. Are you familiar with the C-115 reports to the effect that those wells in the southeast run from 29% to 75% water?

A Yes, sir.

Q That is some water, isn't it?

A Yes, sir.

Q Then, wouldn't that indicate to you that there was somewater drive to the southeast?

A I testified there probably was some water drive.

Q Then would that revise your estimate of the ultimate recovery - would that revise your estimate of the ultimate recovery in the Wolfcamp if a water drive developed rather than a solution gas drive?

A Yes, sir.

Q Then to the extent that the water drive developed and approached the water drive of the Devonian, then your figure of effieiency rate of recovery would be revised upward to a maximum of 60%, wouldn't it, assuming that the water drive developed?

A I don't think the water drive is effective and the fact is pretty apparent.

Q I didn't ask you - You can make your statement as to what you think. Assuming it did develop, then your figure used for ultimate recovery would have to be revised upward toward the 60%, wouldn't it, because that is the efficiency rate used on a water drive field? Is that right?

A It would be increased upward; yes, sir.

Q The effectiveness of water drive is yet to be determined. I will concede that. But now let's go into this recovery that you estimated. In the Wolfcamp Fort No. 1

you estimated a 22-foot effective pay area for recovery; is that right?

A Yes, sir.

Q Now, how did you just figure a 22-foot taken off of the 38 feet that by your own logs would indicate that there are at least 38 feet of all this dolomite you are going to perforate is effective pay sand? Area instead of sand. Excuse me. How did you arrive at 22 feet?

A We had to base that upon cores that had been made in other wells.

Q On a core analysis of these particular wells?

A No; these wells were never cored.

Q Which wells did you use?

A We used the engineering report, Atlantic Dickinson No. 12, I believe it is.

Q Where is that located, Mr. Washburn?

(Off the record.)

A It is Dickinson A-1, No. 1.

Q Where is it located?

A It is one of the early wells that was cored.

(Off the record.)

Q This well is in the northwest of the southwest quarter of Section 1, Township 15 South?

A Yes, sir.

Q When was that well originally brought in?

A I don't have that information.

Q Do you know the accumulative recovery from that well to date?

A No, sir.

Q If I told you according to the engineering report there has been 94,000 barrels produced from that well, would you quarrel with that statement?

A No, sir, I wouldn't.

Q Then the ultimate recovery is going to, if your well performs in the same manner as that well, it will greatly exceed 68,000 barrels, wouldn't it?

A I don't know what its recovery is per acre foot.

Q Well, I thought you used the same recovery data that was shown in their core analysis.

A No, sir. I say we took approximately - based on that well - we took approximately - we assumed two-thirds of the porosity had enough permeability to be productive.

Q Well, what porosity are you figuring on in that two-thirds?

A Approximately 6%.

Q Have you eliminated --

A I am using the micro-log. I beg your pardon. Where the micro-log shows porosity, using approximately two-thirds of that footage.

Q After using that two-thirds, what porosity factor are you oranking into your figures?

A Six percent.

Q Six percent. Then, if you pick the best porosity, the average of the entire area, figuring by the engineering committee as 6%, then if you pick just the best to base your figures on, you ought to increase your porosity, shouldn't you?

A No, sir.

Q Some of the wells have better than 10% porosity, don't they?

A Not to my knowledge.

Q Well, let's see. You know the location of the Magnolia Pope No. 1, or 6? No. 1 in the southwest southeast of Section 35. And No. 6 is in the northwest of the southeast of 26. One to the northeast and one to the southwest of this Fort and Fonzo. If the core date of the Wolfcamp pay of the Magnolia Pope No. 1 and No. 6 indicated an average porosity of 10.3%, would you quarrel with that figure?

A No. 6? Not if your data shows that; no, sir.

Q Well, it looks to me, Mr. Washburn -- I mean if you eliminate all your poor areas and take your best to figure your estimated ultimate recovery, that you ought to revise upward your porosity factor, wouldn't you?

A Not necessarily. That is the way I did it.

Q I know that, but we don't agree with your way of figuring.

A If we could assume that full 38 feet of porosity had sufficient permeability to be productive, we would still have a well less than a marginal well. We would never get our money back.

Q We are going to get to that, too. But let's figure with this 25%, your porosity factor of 6%, and figure it on 38 feet. What would be your recovery?

A Will you repeat that, please?

Q Let's assume our factor of - that your accepted factor of 25% efficiency rate of recovery, let's revize the effective pay zone from 22 to 38 feet and apply the factor you applied to the 22 feet, apply them to 38 feet. What would be the resulting figure of ultimate recovery?

A Approximately 136,000.

Q Sir?

A About 136,000.

Q Now, with reference to the economics of dually completing the Fort No. 1 and the Fonzo, is it the position of Phillips that the other operators go ahead and twin their wells, and then on their edge wells that they should be allowed to dually complete those because their edge wells might not pay them as much profit as they would

like to obtain? In other words, here in recent months Magnolia has twinned the north location from the Fonzo. Do you think that -- You think Magnolia is a fairly prudent operator, don't you?

A Yes, sir.

Q You think they came out with any such figures as those and then proceeded to twin that well?

A We never considered any of that. We merely asked for permission to dual ours. If you want to twin yours, that is your privilege.

Q Do you think we would have drilled a well if our figures indicated we wouldn't get back the cost of drilling it?

A No, sir, I don't.

Q No. Now, let's go to this $200,000 cost of these wells. I would like a little breakdown on that, more than what you have stated, that it is just a flat $200,000. On what is that based?

A On six Wolfcamps we have drilled.

Q With Atlantic?

A On our Denton lease.

Q With Atlantic?

A Yes, sir.

Q Is that the figure you and Atlantic settled on?

A That is the cost charge we have on it.

Q Is that the charge you made to Atlantic?

A That is the cost estimate that was approved by Atlantic; yes, sir. I believe that's right.

Q Now, this estimate - we want to know when the dollar changing started, when Atlantic started paying the bill. On what basis did you settle on those six wells?

A I don't know what you are getting at. I don't think I could answer --

Q Yes, I think you do. You divided up and figured up your cost and sent Atlantic a bill for their proportionate share of the cost, didn't you?

A I never looked at the bill we sent Atlantic. I looked at the bill in our office.

10b Q Will you look at the bill you gave Atlantic and furnish us that information as to the actual bill presented Atlantic on those six wells, because your $200,000 figure is in excess of fifty to sixty thousand over the average cost of these wells. I don't know what difficulties you experienced.

A The Denton No. 11 cost $195,000; the Denton No. 14 cost $212,000. Those are the last two we drilled. Rounded out, as I said, approximately $200,000.

Q We are doing a lot of rounding. Let's get down to -- You say you based your $200,000 on these six wells.

Now you say you did it on two wells.

A Well, if the Commission requires them, we have the price of the six wells. I used them, and the other ones are a year or so old. I used thelast figures, the 11 Denton and the Denton 14.

Q Used the figures on all six or the last two?

A The last two.

Q On the last two. Did you have any mechanical difficulty in completing those two wells?

A None that I know of.

Q Would you be willing to furnish the Commission with the cost on which you and Atlantic settled for these six wells for the Wolfcamp?

A If the Commission so desires, we certainly would.

Q Well, if we desire, would you so furnish it?

A Well, now, you are getting into -- I can't answer that. I don't know what the policy is on letting figures out.

Q Well, you present some figures here to let yourself into dual completion. You ought to let some more figures out to show the basis on which you are asking for it.

A I don't know what this is getting us at, quite frankly.

Q You know what I am getting at. You know $200,000 is high for those wells.

A We think a Wolfcamp well drilled today would cost $200,000. That is my statement.

Q If our figures on Pope No. 8 are far below that figure, then how do you account for the great difference between the cost of your wells -- Just how do you figure the cost of your wells, figure overhead and profit?

A It is cost of equipment, tangible and intangible values, and it does have some lease foremen and salaries in there for a month or two. But it is a minor item.

Q Actual cost of drilling equipment and completing the well?

A Yes, sir.

Q In your statement with referenee to the Wolfcamp, you made the statement it was a tight formation. What is your definition of "tight"?

A Permeability of 10 milledarceys or less.

Q Did you take into consideration the vertical fractures in that formation?

A No, sir.

Q They have vertical fractures in the Wolfcamp in the Denton field do they not?

A Yes, sir.

Q That figure can't be calculated, but it would in-

crease the permeability over-all, wouldn't it?

A Yes, sir, to some extent. I still believe you would class it as a tight formation.

Q Now, with reference to that, do you classify the Devonian as a tight formation in the Denton field?

A No, it is intermediate. We can't say it is -- No, I don't know that.

Q Now, on this -- Your experience in packer failures, I think you said -- I don't want to misquote you -- You did refer to dual completions at ten or twelve thousand feet in the Gulf Coast area?

A I never said that; no, sir.

Q Would you estimate that? You made some reference to the Gulf Coast area. What reference did you make?

A To the fact that we had dual oil-oil, dual completions in the Gulf Coast area is about all I said. But they weren't deep.

Q But you wouldn't be apprehensive of dual completions at ten or twelve thousand feet in the Gulf Coast area?

A I am not familiar with the Gulf Coast area. I know it is different from this hard rock country. I can't answer that.

Q Where are you familiar - with what area - the West Texas area?

A Primarily West Texas.

Q The Dollarhide - is it a sweet crude in the Devonian-Silurian over there?

A I don't have that at my fingertips; I don't know.

Q Now, with reference to your testimony that when you go to artificial lift, what bottomhole pressure in the Wolfcamp did you estimate - did you estimate at what point that you will have to go to artificial lift?

A I can't answer that. We know that artificial lift is coming up, maybe in two years, maybe three years, maybe sooner. I understand there are some on the pump now.

Q There are eleven of them, aren't there? The figure of eleven given you as the number of wells on the artificial pump at this date, that would be pretty well in line with your information?

A Yes, sir.

Q Isn't it true that your pressures in the Wolfcamp indicate that most of the wells will go to artificial lift of some kind in not quite a year or two, but in a matter of months?

A I don't think so.

Q What pressure do you calculate they will go to artificial lift? What pressure? What bottomhole pressure?

A 1000 pounds, in the vicinity of 1000 pounds. I had better say I don't know. I don't know.

Q That would be refuted by the fact that they are on pump and the average pressure is about 3200 pounds?

A Yes, sir; that's right. There is eleven on the pump. There is some others flowing at 3200 pounds. So I don't know when the others will go.

11 Q Will the oil capacity of artificial lift be decreased if water is produced in the formation?

A The rates I gave were approximate capacities at near depletion pressure.

Q With no water?

A With no water. Fluid capacities in other words.

Q There will be some water?

A There is a possibility of that; yes.

Q Then that water will reduce the capacity, won't it, the oil capacity there?

A Naturally.

Q Have you made any analysis of water found in the Devonian or Wolfcamp in the Denton field?

A No, sir, I don't -- We make a very small amount of water, but it has never been analyzed.

Q There is some gyp or lime deposits there, aren't there?

A There are other fields with gyp. That can be

handled like paraffin; if you recognize you have got gyp, you can take care of it.

Q How can you?

A By down hole treatment or by proper selection of equipment that you are using, the artificial lift you use.

Q All of them have got to have some metal, haven't they?

A Yes.

Q And it is going to have a reaction on that metal, isn't it?

A Well, I wouldn't avoid pumping a well because it had a little gyp.

Q No, Idon't advocate your pumping it, but I advocate pumping it in two different holes so that you won't make any communication in different formations in the event you have packer failure. I am not opposing your pumping your wells any way you want to, but I do oppose your pumping them out or the same well bore.

A With Kobe equipment, or hydraulic equipment, I could service that pump much easier than you could do it with rods, or just as easy as a single well.

Q Are you making that statement to this Commission, that you can do a work over job in a dual completion as easy as any single completion?

A I can pull rods on pumps out of the zone that is

being pumped as easy as I could --

Q How about the pressure down in your Devonian? You have got to keep that pressure down, haven't you, to hold that in the formation?

A Well, you are going to choke that off.

Q Choke it off. Okay. I have no further questions.

MR. MADOLE: I would like to reserve the opportunity to cross examine if, as to these packer tools, that I understand they are going to testify about it, if the manufacturers are proposing to testify and don't know what the actual operations of those tools in the field are, because we would like to go into that. But it is premature until such time as the evidence with reference to the tools to be used in the completion of these dual completions.

MR. SPURRIER: Are there any other questions of the witness?

CROSS EXAMINATION BY MR. NESTOR:

MR. NESTOR: My name is E. W. Nestor of Shell Oil Company.

Q There is one point I would like to figure out from your testimony on workovers. If I understood you, you expected to have only one workover possibly during the life of your Wolfcamp wells; is that right?

A I don't believe I made that statement concerning the Wolfcamp. I was talking of the Devonian.

Q There was some statement made -- That is what I mean, the Devonian.

A Yes, sir.

Q Now, when you are going to work over the Devonian, how do you propose to do that?

A Well, the way we would do it today wouldbe to mud it off and squeeze the lower zone and perforate.

Q You would have to pull the dual completion equipment out of the hole and put mud over both formations and proceed. Now, in doing that work, don't you figure that an additonal risk of damage to the Wolfcamp formation, which you have already specified as tight? Now, you are going introduce mud into that formation. What effect do you suppose that will have on your ultimate recovery?

A It all depends on how clean you get it.

Q Now, you just testified it is tight, and I believe you would normally figure, once you have acidized such a tight formation, one of the things you don't want to do is get any fluids back in there again.

A Yes, sir.

Q So, even though the Wolfcamp formation itself didn't require any work at the time, if it is necessary --

which it probably is -- to work over the Devonian formation, then you are going to have to kill the Wolfcamp, and then have to bring it back in, with some possibilities that your Wolfcamp zone won't be as good as it was originally.

A That is a possibility.

Q Are you acquainted with the flowing bottomhole pressure on the west side of the pool, currently? In round figures? Or would you estimate the flowing bottomhole pressure?

A What zone?

Q Wolfcamp.

A About 3200 pounds.

Q On the west side?

A Well, frankly, I can't answer that.

Q That figure is possibly fairly accurate for the east side. But in the west side, in the area where you are proposing to do this work, I am satisfied you will find it averages well under, possibly 2900 pounds or even less. That is all based on the cooperative survey which the Oil & Gas Committee ran in April. They have actually run some pressures since then.

11b

There is another question along that line. Of course, you said you didn't believe you could answer at what bottomhole pressure it would require artificial lift

on the west side. Would you agree, if the wells on the west side are having difficulty and requiring swabbing operations currently at pressures of 24 and 25, would you assume they are getting pretty close to the point where lift would be required?

A Yes, sir.

Q That actually is the case on some of those west side leases. But I think there is a danger that probably the flowing bottomhole pressure of about 2300 pounds will be as low as will sustain the flow on that side.

There is one thing that concerns me too in your comment on the Devonian. I think you mentioned you expected the Devonian would probably flow for at least ten years. Now, did you - or would you state to the Commission you believe your Fort No. 1 will flow for ten years, from the Devonian, that is?

A I think that it will. I will tell them that.

Q Actually, the bottomhole pressures there are about 4400 pounds and you don't know what the critical pressure is there yet. But pressures are dropping and -- How much pay does that well have?

A The Fort in the Devonian?

Q Yes.

A Approximately 150 feet; 147 is what I used.

Q That is good. Roughly, what would the average

thickness for the Devonian be in the Denton?

A Around 900 feet or 1000 feet or 1000 feet.

Q No, that is -- Just the average for all the wells, including the rim wells, probably be somewhere around 600 pounds maybe. As the water comes in, do you not envision that your Fort 1 well there will make water?

A As it comes in, yes.

Q There is a strong possibility you will have to install artificial lift in that well quite a bit before some of your better wells.

A Yes, sir.

Q Such as theDenton 12 and 13. Just roughly, what do you figure is your average operating net income from a barrel of Wolfcamp oil?

A Approximately, after all costs?

Q All costs.

A Between a dollar twenty-five and a dollar and a half.

Q I wonder -- Do you suppose you could outline that for us?

A I don't have that data here. I base that on experiences of payout of other wells in that area.

Q That seems considerably lower than some of the figures we have on that. I wonder if that isn't a bit pessimistic in view in particular of your January price

hike. You still believe it would be roughly that figure?

A That has been my experience in other studies of this nature.

Q Do you suppose you could show the Commission how that figure is arrived at, fairly quickly?

A I don't have the information - the data I need to work with here. My tables, my discount tables, - Let's start out with oil at a dollar fifty-eight plus twenty-five. We take 7/8 of that. That is working interest.

Q Two dollars and fifty-eight cents plus a quarter.

A Yes. Multiply by 7/8, you get a working interest, and we would have about 7½% production tax, or 7.3, I believe it is, to deduct. And then we would have lifting cost, which we would estimate at about $3000 per year per well. Now, then, we have to --we can charge off our intangibles on this first year and we can take depletion allowance and we can take -- we wouldn't have any equipment -- we could depreciate the wellhead equipment.

Q The tangible.

A The tangible part. And after that we would have to figure how our income tax would be at about 52%. Find out what taxable income after that. Then deducting our taxable income from our -- We would multiply by 52% to get our tax, and deduct it from our income, after lifting costs.

Q In other words, you have taken the tax provision

in that? That includes that?

A Yes, sir.

Q Now, there is one other question which concerns me on the west side there where the Wolfcamp pressures are dropping. I believe you testified that the present differential in bottomhole pressures between the Wolfcamp and the Devonian zones is 1700 pounds.

A Approximately.

Q Is that the figure? Actually, the figures on one of the west side leases, and which were taken again from this April survey, from the cooperative survey, showed within just a few pounds of 2000 pounds on two west side wells. One of them is a mile from the Fort and another is less than a mile from the Denton 13, about a half mile.

A Yes.

Q And more or less in a similar stratigraphic position, west flank wells, more or less similar to the flank position of your wells. I thought I would make that point. It does run some higher than 1700 and something, which you would know. Recent pressures indicate it is now over 2100. Since April another 100 pounds of differential has entered the scene. It is quite alarming the differential that is established between the two zones.

-C-

A That is bottomhole pressure. It isn't necessarily the differential across the packer.

Q That's right. You could figure roughly 900 pounds as would be a logical figure to assume for the difference in datum.

A Yes.

MR. NESTOR: I believe that is all, Mr. Spurrier.

MR. SPURRIER: Anyone else have a question of Mr. Washburn?

MR. WHITE: I would like to ask one question. I don't believe it has been brought out here very particularly.

How many packer failures have you had on the 51 dual completions after they went on production?

A We had one packer failure in the Embar-Ellenberger field, which was put in - one of the earliest packers we put in - but it was later identified and we corrected it immediately.

MR. WHITE: But that is the only one you know of?

A That is the only one I am aware of, in West Texas, now.

MR. WHITE: That's all.

MR. SELINGER: What depth was the packer?

A Between the Tubbs and the Embar.

MR. NESTOR: There is one further discussion

there on the oil-oil duals in the TXL Field. That is one of the places where you have them in West Texas which you might consider as comparable here. There is one bit of information which might cast, leave, an erroneous impression in someone's mind there. You were questioned as to the length of time the packers had been installed in some of those wells, and I think you stated around three or four years.

A Yes.

MR. NESTOR: Now, I would like for you to clear up for the Commission that that isn't necessarily true for many of those wells in the TXL, is it?

A Our Zeta No. 1 is one of the oldest, approximately three years.

Q Which zone is that?

A It is — I have got it here in my books somewhere. It is the Embar-Ellenberger and the Silurian, I believe.

Q Ellenberger?

A I beg your pardon. Ellenberger is the zone being pumped.

Q And you think the other is the Silurian?

A Yes, sir.

Q And how long has that well been completed as a dual?

A Approximately three years to the best of my knowl-

edge.

Q What part of the structure is that well, do you know offhand?

A No, sir.

Q I believe prior to the very late 1951 that there weren't any Kllenberger-Fusselman duals in any part of the south zone of the TXL structure. Maybe three. Phillips didn't have any. I may be in error. That is one of the points that concerned me I wanted to get cleared up. There were three wells dualed in the south zone but I believe none were Phillips operated. I thought you made most of them there in 1952. '52, I believe you will find most of the dualing was done.

MR. PEACOCK: Is it still your opinion that was three years?

A I can't be positive. I am recalling from memory.

MR. NESTOR: It sounds like most of the dualing occurred there in late '51 or early '52, which would be about a year old. The specific well you mentioned, I am not sure of either.

MR. SPURRIER: Do you want to have your testimony sworn to, Mr. Nestor?

(Laughter.)

MR. NESTOR: I was just asking. He threw out something I thought was erroneous. I may be wrong.

MR. SPURRIER: Does anyone else have a question of Mr. Washburn? If not, the witness may be excused. We will take a ten minute recess.

(Witness excused.)

(Recess.)

MR. PEACOCK: I want to call Mr. C. C. Taylor to the stand, please.

C. C. TAYLOR,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. PEACOCK:

Q Will you state your name, please, sir?

A C. C. Taylor.

Q Your address?

A 1610 Bedford Drive, Midland, Texas.

Q By whom are you employed, Mr. Taylor?

A Baker Oil Tools, Incorporated.

Q How long have you worked for them?

A Thirteen years.

Q In what capacity are you working for them at this time?

A I am district manager of West Texas and New Mexico.

MR. PEACOCK: I should like to qualify this witness to testify concerning Baker dual completion equipment. Is the Commission satisfied with his qualifications to so testify?

MR. SPURRIER: I would judge he is qualified.

Q Does Baker Oil Tools, Incorporated, make equipment used in dual completion of wells, that is, oil-oil completions?

A Yes, sir; we do.

Q What is the equipment that your company makes?

A We manufacture a retainer production packer with accessory equipment for production purposes.

Q What is the purpose, briefly, of this equipment?

A The purpose of this equipment is to provide a means of isolating a single zone or multiple zones within the bore of the casing, or the liner.

Q I see, Mr. Taylor, you have brought along a scale model of your equipment, and I propose now to have you explain and demonstrate to the Commission, briefly, what your equipment is and how it works. Will you do so?

A Yes, sir, I will.

Briefly, this is a Baker retainer production packer, Model 415-D-4.

12b

This packer, with its accessory equipment, is to segregate or isolate any zones that may be desirable. The

packer itself consists of a setting sleeve. This is the setting sleeve. It consists of an upper slips, a cone, expanding rings; a lead seal, a sythetic packing element, and your lower slips and a junk pusher and a flapper valve installed.

This packer is made of drillable cast iron material. We can set this packer as the operator desires, either on the electric wire line through the medium of a power setting tool. We can set the packer on tubing, or on a drill pipe; as I say, whichever may be desirable.

When we set the packer, if we set it on tubing or drill pipe through the medium of auxiliary equipment, if on tubing or drill pipe, you pull at approximately thirty to thirty-five thousand pounds pull. To properly set your upper slips and to back off your packing element and expand the expanding gas rings out against the walls of the casing. The lower slips are then set and the upper slips set and your packing element and everything squeezed together in this manner to isolate the zone.

When we set it on the wire line, which is an electric line, the same line you perforate with, we place a powder charge in a pressure chamber, which, as I say, is a medium for collapsing the tool and back off the packing element. In this particular tool the powder

charge burns and discharges its gas and from there on the operation is a hydraulic operation, of course, which we call a pressure E-3 setting assembly.

We have set this packer and we are ready to go back into the casing. And then we use the auxiliary equipment. We have this packer set with your clean bore through it. Your flapper valve is closed in that position to keep pressure from below in the event of pressure from below.

We move this equipment up on the tubing, which consists of the auxiliary packing equipment, what we call tubing seal nipples. They have chevron seals working downward to hold pressure from below. And chevron seals working upward to hold pressure from above.

We have in this particular case a Baker cross-over flow tube, which is this - from here down is the Baker cross-over flow tube, with an inner tube and the outer tube. We have a locater sub that mates with a corresponding set in the top of this packer.

If we go back in the hole with the tubing, to assure you these seals are positioned in the bore of the packer, we can set as much weight down on this packer as is practicable to put down on the tubing. If you want to put 50,000 pounds of weight, it's all right. But if you are in large casing, such as 7-inch, with 2-inch

tubing, you might kink or bend the tubing with that much weight down.

This auxiliary equipment is the combination of Baker Oil Tools, Incorporated, and Otis Equipment Company. You can back in with the tubing, your flapper valve opens, your seals are then positioned in the bore of the packer, and you confirm that you are in the bore of the packer by setting a weight of your tubing down.

I believe from there that Otis will explain their --

MR. PEACOCK: I now propose to have the Otis equipment man testify and then I think cross examination could well be directed to the two of them, because the questions will probably relate to both their equipment.

MR. SPURRIER: Very well.

(Witness excused.)

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DON TAYLOR,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. PEACOCK:

Q State your name, please.

A Don F. Taylor.

Q Your address?

A Dallas, Texas.

Q By whom are you employed?

A Otis Pressure Control, Incorporated.

Q For how long have you worked with them?

A Some thirteen years.

Q In what capacity do you now work for them?

A I am the manager of the Special Services Division for Otis Pressure Control.

MR. PEACOCK: Is the Commission satisfied Mr. Taylor is qualified to speak concerning Otis equipment used in dual completions?

MR. SPURRIER: It is.

Q What is the name of the equipment your company makes for dual completions?

13 A We make several tools for dually completing oil wells. The one in question here is the Otis Type H selective cross-over nipple assembly.

Q What is the purpose of this tool?

A The purpose of this tool is to be used in conjunction with an oil well packer placed above the upper formation for separating and controlling the flow of two zones, and utilizing the tubing casing annulus from that point to produce one zone and the internal bore of the tubing to produce the second zone.

Q Now, you have brought along examples of some of your equipment, have you not?

A Yes, sir.

Q Would you demonstrate those to the Commission at this time?

A I would be glad to do that.

This selective cross-over nipple assembly we have here sets on top of the Baker packer and tubular equipment, and it is run on the tubing string at the time the tubing is run into the hole, not before that. As you see, this item here, this nipple, has no control in it. Normally, in your completing practices your two zones will be commingling while you are running your tubing. There is no way to prevent that unless conditions exist which will overcome this flapper valve area here.

At the time this is landed, I think most of you are familiar with the fact that there must be another packer placed between your formations so that your isolation of your lower zone formation from your upper zone will be complete, and a seal between the casing and the tubing effected so that the lower zone production is directed through the bore of the tubing. At that time, and when the tubing is landed, this condition occurs.

The lower zone is then in the tubing and the upper zone is trying to enter the tubing from between

the two packers. And at that time, if you will glance down here, I think I have some prints here if you would like to show them that --

Q Well, are these the reproductions of what we have there?

A I believe those are faithful reproductions with the extent that they don't show some of the detail of the packer arrangements; but essentially they do.

MR. PEACOCK: We would like to introduce these, then, as Applicant's Exhibit 7.

MR. SPURRIER: Without objection, they will be received.

A Gentlemen, if you will glance at the drawing there - and I think you can look at this exhibit or item on display here and correlate the two - you will see down here at the bottom of the page a set of ports beneath the Baker packer, where the upper zone - which allow the upper zone to come in through an annular space between the flow tube and the tubing seal nipples. I want to bring that out at this time so that you will fully understand the path of the two fluids up to this point right here where my hands are, which is the lower portion of the Otis cross-over nipple assembly.

The upper zone fluid, then, comes up underneath the seal nipples and on the outside of the inner flow

tube, and up this channel right here.

Beneath the outer case of the nipple assembly, and on up above, are some horizontal ports that will come out in a diagonal direction from the tubing bore. The upper zone can enter the tubing at this point some four to six inches above the horizontal ports coming out from the tubing into the tubing casing annulus.

That condition exists at the time the casing is landed. From this time on, with your normal well completion practice on the surface, the tubing hanger and casing hanger will correspond to raise and control the device at the surface. We can then, either under pressure or no pressure, install by means of a wire line - what we call a wire line operation - the subsuriace control, which will then separate the two zones and direct either zone you desire into the tubing casing annulus.

By means of this you will then produce simultaneously both zones; one through the casing and one through the tubing. Production from the casing wing and the production from the tubing out the normal Christmas tree head.

This tool I have in my hand, and shown in the sketch distributed to you, is known as the cross-over choke. The word "choke" is used colloquially in our

business as a sub-surface control which backs off and seals and directs the flow.

This tool operates in this manner: It has a locking device on it, and is dropped into the tubing, at which point it seals in a locking - locking itself - so that in the upper movement of that tool, that tool is locked into place.

13b I am going to ask your indulgence. The packing on this has been intentionally chipped so that we won't have to get up with a hammer and drive it in and out. But if you will visualize that tool is in that position during the productive life of the well, and is then what we called crossed over - the crossed over position then allows the lower zone, coming up the internal bore of the tubing, to impinge on this bottom of this control by means of the bore of the choke being sealed up, and the upper rings sealing the internal bore of the tubing, and the flow of the lower zone. Directed out through these ports.

I think, if you look on your diagram there, you can see the ports. And from that time on, the lower zone in this particular installation is directed up the tubing casing annulus and out the casing wing valve.

The upper part has a somewhat different path; comes up the little annular crevice in the carcass of

the nipple assembly until it hits these ports here. And they are not external. Covered by a steel sheet. The upper zone fluids hit this mandrill. The nozzles go up or down by means of the packing and plug in the choke, and are then directed into the choke bore; and from there on come right up to the surface through the tubing.

If at any time in the productive life of the well you desire for any reason to change that flow, the wonderful advantage this tool performs is the fact that you can then extract this choke and replace it with another, which has the hollow bore through it all the way down, and it changes the set of the packing to a point below these ports. And the lower zone then is forced through the bore of the packing right on up the tubing. And the upper zone fluid is then forced into here. It can no longer go into the bore of the choke. It is then forced out this point here into your tubing casing annulus.

And with this installation now in place here, you have what we call a regular flow condition for a dual completion. In other words, you normally carry the upper zone up the tubing casing and the lower zone through the tubing.

I think that about covers it. The advantages to this tool are that you can work over each zone as you wish, while producing the other, by the simple means of

a wire line operation.

Q I have a couple of more questions I would like to ask both Mr. Charles Taylor and Mr. Don Taylor.

Mr. Charles Taylor, the equipment you have demonstrated and explained to the Commission, could that be used in a 5½-inch casing for an oil-oil dual completion with the producing zones at approximately 9200 feet and 12,000 feet?

A Yes, sir; it can be.

Q Could either of the zones or both zones be pumped with your equipment installed in the casing?

A You can only, with that installation, pump one zone.

Q With this installation?

A You can pump either zone through your tubing, either the upper or lower zone.

Q Yes.

A But to my knowledge, with that particular installation you cannot pump both zones.

Q Do you have equipment, types of installations, with which both zones can be pumped?

A We do not have that equipment. That equipment is available, I understand.

Q What differential and pressure between the upper and lower zones will these packers sustain without

leaking?

A We have tested this particular packer to 9500 pounds per square inch at 350 degrees Fahrenheit temperature.

MR. WHITE: Did it stand the test?

A Sir?

MR. WHITE: Did it stand the test?

A Yes, sir; it stood the test.

Q Now, Mr. Don Taylor, is the equipment which you have demonstrated to us here today the nature and type which could be used in a 5½-inch casing, a dual oil-oil completion with pay zones at 9200 feet and 12,000 feet?

A Yes, sir.

Q Is the type of choke which you have demonstrated the kind which would be used when both zones are flowing?

A Yes, sir.

Q Do you have equipment with which one or both zones could be pumped?

A The present equipment could be adapted to pump one zone through the tubing by means of an appropriate setting nipple and exchanging the appropriate sub-surface choke to throw the desired zone into the tubing, and allow the other zone to be flowed out the casing. By that

means you can pump one zone and flow the other.

Q Does your company have equipment which could be used in an installation where both zones are pumped?

A Yes, sir.

Q And is it used today for that purpose?

A Yes, sir.

Q In oil-oil dual completions?

A Yes, sir.

Q Mr. Charles Taylor, would you repeat, if you have not already -- I mean if you have already said so -- would you repeat whether or not you would recommend the installation of the packers in a well such as the type I asked you about, approximately - you don't have to say within so many feet -- What I want to know is will one packer be placed between the two zones and another packer in the upper pay zone?

14 A Yes, sir. One packer will be beneath the two zones and one above.

Q You mean between the two zones and one above?

A One between the two zones and one above.

Q Does the equipment which you have demonstrated here prevent commingling of the oil produced from two different pay zones when properly installed?

A Yes, sir; it does.

Q What are these?

A Those are the seal nipples. These are the chevron seals.

Q Is that the usual number of seals you would recommend for installation in the type of well of which I spoke to you a while ago?

A We suggest a flow tube that has twice this many seal rings. In other words, we have both to offer for sale; one with double seals, or this particular one with single seals.

Q With a pressure differential of 1700 or 2000 pounds between the two pay zones, what would you recommend on the number of seals there?

A I would recommend two sets of seals. They cross over the flow tube with two sets of seals with a hanger type flow tube.

Q Do your service men assist and advise the operators in the installation of your equipment?

A Yes, sir; our service men assist and advise in the installation.

Q Do they actually do the installation?

A They only assist and advise in the installation.

Q Do your service men, Mr. Don Taylor, assist and advise?

A We do.

Q What do you actually do in the installation?

A If the operator wishes us to, we will assist and advise in the installation.

MR. PEACOCK: No further questions.

MR. SPURRIER: Does anyone have a question of either of the Mr. Taylors?

MR. SELINGER: Yes.

MR. SPURRIER: Mr. Selinger.

BY MR. SELINGER:

Q Mr. Taylor with Baker: How many installations do you have of Baker retainer packers in 5½-inch casing? That is, your whole assembly installed in 5½-inch casing wells. Do you have any?

A We have made in the -- Do you mean this particular hookup?

Q Yes.

A This identical arrangement?

Q Yes.

A The best of my recollection, we have made approximately 45 installations in the past year and a half.

Q Where were they mostly?

A They were in the Goldsmith Field of Ector County; in the Wheeler Field. I believe that is in Winkler County. I'm not sure. Maybe borders on Winkler in Ector. In the Pegasus Field. In the Benadum Field. In Upton County. In

the Pinwell Field in Ector County.

Q That is all 5½-inch casing?

A Well, we have made a number of 5½ --

Q Let's start over. I am asking just about installations in 5½-inch wells, not 7-inch.

A I can't answer the exact number. I don't know the exact number.

Q What I want from you is whether or not you have any installations in 5½-inch casing.

A Yes, sir; we have.

Q Do you know where they are?

A Yes, sir.

Q Just roughly.

A I know a number are in the Pegasus Field.

Q That is 5½-inch casing?

A That is 5½-inch casing; in the Pegasus Field. And in the Wheeler Field they have 5½-inch casing. In the Benadum Field of Upton County they have 5½-inch installations.

Q Do any of those installations of yours go as deep as 12,500?

A Yes, sir.

Q Which one?

A In the Pegasus Field, I believe it is; to the best of my knowledge; 12,800.

Q Now, are you talking about a Baker retainer pro-

duction packer with a special change-over head - is that what you are talking about?

A Yes, sir.

Q And that has been designed to replace the by-pass collar of your regular change-over flow tube? Is that what you are talking about?

A Yes, sir; that's correct.

Q And you say it has been manufactured and used and tested in 5½-inch OD casing wells?

A Yes, sir.

Q Who is R. D. McBrine with your company?

A R. D. McBrine was district manager of West Texas and New Mexico.

Q Would he know whether or not in West Texas the Baker retainer production packer for 5½-inch casing was tested and used in the wells in the West Texas district? Would he know that?

A Yes, sir.

Q Now, your installation you're talking about - with respect to flowing wells, is that correct?

A We install the packers --

Q I am saying you are talking about installations of packers in flowing wells?

A Well, I am talking about the installation of packers.

Q Regardless whether flowin, or artificial lift or pumping?

A Yes, sir.

Q And so far as packers are concerned, it makes no difference which type of production, by what means you secure your production, the packer has nothing todo whether it is flowing or artificial lift or pumping; is that correct?

A No, sir.

Q Well, then, what is this installation you are talking about? Which method of production?

A Well, this particular one in question here is the isolation of two zones. And we are talking about the exact installation here, which is flowing.

Q Now, with respect to your 5½-inch size well, the installation you are talking in West Texas was with respect to flowing?

A To the best of my knowledge, they were flowing.

Q As a matter of fact, all the installations you are talking about in West Texas are confined to flowing conditions, are they not?

(No response.)

Q If you don't know, we will go on. But I am asking whether or not you know if they are confined to flowing conditions.

A I believe at the initial installation they were confined to flowing.

Q Now, if artificial means is to be employed after the initial flowing stage, is there any change in the set-up of those wells for production purposes? From the change over of natural flow to artificial lift.

A We do not make pumping equipment or artificial lift equipment.

Q Then your testimony is confined to the equipment you have with respect to flowing wells; is that correct?

A Yes, sir.

Q Now, Mr. Taylor, I will get to you, with the Otis. Do you want to say something, Mr. Peacock?

MR. PEACOCK: That wasn't the impression I got from the gentleman's testimony.

MR. SELINGER: Well, the witness can take care of himself. That's what he said. If he has something else to say, I will be glad to hear it.

14b

A I will be glad to renew it. I am not familiar with it.

MR. PEACOCK: You did testify you don't know what type production methods are used in all those wells, didn't you.

MR. SELINGER: I asked him if he didn't know, to

say so and we would go on. And he said so far as he knew, it was confined to flowing wells.

A Our equipment is confined to flowing wells. This equipment here is confined to flowing wells. The auxiliary equipment would be of someone else's manufacture.

MR. SELINGER: Thank you, Mr. Taylor. That is all -- That's what I understood you to say.

Q Now, Mr. Taylor with the Otis.

Your equipment is used with respect to what type of production, whether flowing or artificial lift or pumping?

A This equipment can be used in any type of production you mentioned.

Q Is it used for 5½-inch casing?

A Yes, sir.

Q To what extent have you tested your equipment in 5½-inch casing with respect to depth?

A Oh, we have made so many installations it is hard to recall just exactly how many.

Q I didn't ask how many. I just asked as to the depth.

A We test -- Let me answer the question this way: We test the cross-over nipple assembly, each one of them, at the time we assemble them in our plant in Dallas, with

a hydrostatic head.

Q I believe you misunderstood my question. I am referring with respect to depth only. To what extent has your equipment been used, to what depth?

A It goes to any depth that there is an oil well that has a dual completion in it.

Q Then answer the question correctly, Mr. Taylor. Point out the specific well to the furthest depth you have had your equipment installed.

A I believe Pegasus is a good example of that. I don't recall just how deep it is. I doknow we have several dual completions. I don't know whether oil and oil in the Pegasus Field --

Q Let's take that. Is there anything deeper than Pegasus in Texas you know of?

A Yes, sir; there are deeper wells in Texas than Pegasus.

Q That your equipment has been used in in 5½-inch?

A Yes, sir.

Q In which fields? I won't put the wells. Which fields?

A Well, there again I don't believe I am qualified to say which wells in which fields.

Q All right. We will go on. Now, that installation you have there is for flowing, did you say?

A No, sir; I said it was adapted and could be adapted to any kind of production that would carry the flow through that nipple assembly.

Q Now, what, in addition to that equipment, can you tell this Commission is necessary for artificial lift from one or two zones?

A Well, in the Otis equipment there is nothing that we furnish in this setup that is required additionally. There are manufacturers, other manufacturers' equipment, that can be placed in your tubing string and other types of artificial lift that can be placed on the tubing and on the surface to produce an oil well.

Q In addition to the Baker people and the Otis people, it is necessary for other equipment people to come in and give the Commission the complete picture?

A No, sir; it is the standard pumping equipment, standard lifting equipment. If you prefer to define gas lift as artificial lift --

Q That instrument is prepared for gas lifting purposes?

A It can be adapted to it.

Q Is it right now adapted to it?

A No, sir.

Q What else do you have to use with it?

A You have to use additional equipment with it.

This machine, as you call it, right here, directs the flow of the fluids of each zone.

Q What other equipment do you have to put in that?

A You must put on there, if going to gas lift, put on the appropriate gas lift equipment.

Q Who manufactures that equipment?

A There are several manufacturers of that. Kamco manufactures some of it.

Q Let's stop at Kamco. Do you know whether or not the Kamco people recommend the use of their equipment for 5½-inch casing at a depth of 12,000 feet?

A I am not prepared to say.

Q You don't know?

A No.

Q Those people are located in Houston, are they not?

A Their field offices are all over.

Q Their main office is in Houston?

A I don't know, frankly.

Q In addition to the Kamco people, who else?

A Oh, I will refer you to the composite catalog.

(Laughter.)

Q If you don't know there are other people.

(Laughter.)

A I don't recall anyone in particular that comes

in mind.

Q Here is a chance to give other people some free advertising.

MR. SPURRIER: Strike that.

Q Now, with respect to pumping, what other devices are necessary for pumping a well with the adaptability of your equipment there?

A Oh, if you would envision pumping that well from the specified depth, you would simply add a setting nipple at the time the pump was on the - with certain specifications it would be full opening so that we could get our wire line tools to this nipple assembly.

Q You have to run through the macaroni string inside the casing and tubing?

A You can but it isn't necessary.

Q You can pump these wells through this instrument you have there?

A With a rod string you can pump that tubing with no additional tubing equipment except with a setting nipple and the rod string and the pump and the surface equipment.

Q For both zones?

A No.

Q What do you have to do for both zones?

A For both zones we manufacture a two-zone pump.

Q Yes.

A You must pull out all this equipment.

Q Yes.

15 A You must take out the top packer, or you may adapt the setting nipple for the two-zone pump to set at some point above this upper packer and take production from both zones as you will from whatever elevation you desire.

Q Now, Mr. Taylor, from what depth have you utilized the Otis two-zone pump?

A I believe we have an installation now at an average depth of about 8000 feet. I say an average depth. The lower zone is somewhat lower and the upper zone is somewhat - pumped from somewhat higher. If you got the depths and ran them both together, it would come our right close to 8000 feet.

Q Is your instrument restricted as to the maximum ability of fluid ?

A The two-zone pump?

Q Yes.

A It is restricted only by the mechanical lifting devices attached at the surface.

Q And naturally within the 5½-inch casing there is more restriction than within a 7-inch casing; is that

correct?

A Let's put it this way. If the intake of the pumps can be placed opposite or near the perforations in the casing, then we can take as much oil as one - either of the zones will give up - or your surface equipment will allow you to pump - move the plunger of our pumps.

Q Will you go over that explanation again?

(Laughter.)

Q I don't see how it can be right, but I may be a little dense.

A You may have equipment which will exceed the capacity of the well to produce oil, or oil and water, or oil and gas.

Q Yes.

Q Yes.

A In that case you would definitely pump off. Your pumps would be operating inefficiently through no fault of their own.

Q Yes.

A Simply moving a greater length or capacity than the zones have a capacity to give up.

Q You mean if the Wolfcamp and the Denton field was capable of producing 1000 barrels and the Devonian capable of producing 1000 barrels, you could produce one thousand barrels from each horizon?

A If you had the proper rod string and surface equip-

ment to do it with.

Q Could you do it in 5½-inch casing?

A Not 1000 barrels.

Q How much could you produce, total fluid? You know the mathematical calculations as to the maximum volume of the equipment.

A Yes.

Q Now, with this installation, your 5½-inch casing, maximum, and 2½ or 1½ and 1¼, now, what would be the maximum fluid that could be produced?

A Well, that is a question that is eliminated even when you calculate it. It isn't a question of how much we can produce so much as it is a question of satisfying the producer of an allowable, and the ability of the oil zone to give it up. In other words, we have pumps in the ground now that are not producing the proper amount of fluid in that the surface equipment has not been redesigned or reinstalled, of whatever it is, to increase the length of the stroke necessary to give the oil to satisfy the deeper allowable. In other words, the operator is taking what he can get with his surface equipment at the time the pumps are put in. If you have a long enough stroke and you can get that stroke and the oil zone has the capacity to follow that plunger up to the full length of its stroke -- Do you follow me?

Q Yes, I follow you. Go ahead.

A Then you can take that amount of production with a certain pump efficiently.

Q Suppose, as has been testified by Mr. Washburn of Phillips, the Wolfcamp in the particular well is a very uneconom ic well, very small capacity well, do you think your instrument there could successfully operate in an instance where the Wolfcamp is a low producing capacity and the Devonian was a top allowable well?

A I think that we could bring the equipment to bear that would satisfy the operation.

Q Now, I want to ask you, Mr. Taylor, with respect to the total recovery of oil. Presumably a well has all the installations. Now, you can take it in three classifications, flowing, gas lifting and pumping of both horizons. Now, your well on 5½-inch casing, having the equipment of both Baker and Otis and others in the matter of flowing, would you recover more oil by a single completion rather than a dual completion under flowing conditions?

MR. PEACOCK: Objection. I don't believe the gentleman has qualified himself to answer that.

MR. SPURRIER: Does the witness wish to answer?

A I don't believe I am qualified to answer that. We manufacture the equipment.

Q Are you an engineer, Mr. Taylor?

A May I finish?

Q Yes.

A And we have it for sale for those who want to use it. We will work with those that desire to use that. And if in our estimation it isn't a feasible application, we will so recommend. The mechanics of your depletions, we have never gone into.

15b Q Mr. Taylor, are you an engineer by profession?

A Yes, sir.

Q Have you made any study of oil recoveries brought about by installation of your equipment?

A No, sir. That is up to the oil companies and I don't believe we have ever asked them for that information.

Q I believe you, in answer to a question from Mr. Peacock, said a number of instances the producer-operator goes to you for advice as to the installation of packer equipment suited to his particular purpose.

A Yes, sir; he goes to us with the idea he has in mind how much money he wants to spend.

Q Suppose I am Operator A and I come to you for equipment for a well in the Denton Pool on 5½-inch casing. Would you recommend I utilize such an installation under dual completion practices under 9500 and 12,000 feet, or recommend I drill a single well for such a production?

A We make no recommendations of that kind. We recom-

mend only as to the equipment we have available.

Q As an engineer, what would your recommendation be?

MR. PEACOCK: Mr. Taylor isn't qualified to answer that. I object.

A I don't want to answer that. I'm not qualified on that.

MR. SELINGER: He said he didn't want to answer it. It is all rightwith me.

MR. SPURRIER: Let's take a ten minute recess.

(Recess.)

———o———

MR. SPURRIER: Mr. Selinger.

MR. SELINGER: I want to ask Mr. Taylor of Baker --

Q In this proposed installation of packers at 9500 and 12,500 feet, where would you set the two packers? About what approximate depth?

A That would be entirely up to the operator.

Q Do you have any recommendation where that should be?

A No, sir.

Q Have you looked at the Phillips exhibit as to the depth they state where they are going to put it?

A Well, as far as we would be concerned, that would be entirely up to --

Q What is the depth indicated on that exhibit?

A 9150 on the upper packer and 9250 on the lower packer -- No; wait a minute. 12,215 on the lower packer and 9,150 on the upper packer.

Q Now, if the lower zone fails to produce, how would that oil get up that 3000-foot string?

A If the lower zone failed to produce?

Q Yes, sir.

A I suppose they would artificially lift the zone if the lower zone failed to produce.

Q I mean if the lower zone quit flowing. I will put it that way. If the lower zone quit flowing, how would that oil get up the 3000-foot separation between the upper packer and the lower packer?

A You could confine the lower zone to your tubing or your annulus, either way you desired to.

Q Suppose you have to pump it?

A I don't know about pumping it.

MR. SELINGER: That's all.

MR. MADOLE: I want to ask one question or two here.

Q Mr. Charley Taylor, does your jurisdiction of your district extend over into the Dollarhide Field of West Texas?

A Yes, sir, it does.

Q Have you assisted and advised in any other dual completions of Magnolia wells in that area?

A Yes, sir; we have run our packers in the Dollarhide.

Q Are you familiar with how many wells you have dually completed for Magnolia in that field?

A No, sir; I'm not familiar with the number.

Q Isn't it approximately twelve wells?

A I couldn't say; I couldn't say.

Q Are you familiar with the packer failures on those dually completed wells?

A No, sir.

Q You haven't been called out for repair work or advice on the repair?

A I don't know those particular wells and I am not familiar enough to say if we were called out on those wells or not.

Q But they have had packer failures in those wells, haven't they?

A I couldn't say they were packer failures. I don't know if they were packer failures or communication behind the pipe or between -- by the cement job-- or tubing failures.

Q But you did have communication, didn't you?

A Yes, sir; I believe that's correct.

Q Now, with reference to these packers, what do you state is the average life of one of these packers in a hole, assuming comparable conditions we are talking about as represented by the Denton Field?

A I don't know the average life. I don't know whe-

ther packers -- I have been back in West Texas -- I know of packers that have been in wells since 1947, I believe. I do not know exactly what the life of the packer will be.

Q Those are your good jobs. Let's talk about some of the bad jobs. What is the estimatedlife in some of those?

A Actually, I believe the life of the packer will be as long as the life of the well equipment, your tubing equipment, for instance.

Q Do you all have any written guarantee of that?

A No, sir; I sure wouldn't have. No, sir.

Q I would like to present you a few bills if you do.

Do you, Mr. Don Taylor? Are you familiar with the failures in the Dollarhide Field of dual completions?

A No, sir.

Q Have you supervised, or advised - whatever you do - with reference to those completions?

A No, sir.

Q You have never had any experience in the Dollarhide Field?

A No, sir, I haven't.

Q You are aware some of your equipment is installed there?

A I am aware of the fact that there is some of our equipment in the field.

Q Does your company have a written guarantee?

A No, sir. We guarantee against defects in workmanship and material on the surface. We do everything to assist you once it goes into the ground.

Q Once it goes into the ground, do you help pay for the cost of it where it won't work?

A No, sir.

Q Have you had any experience in the Shafter Lake area?

A A little.

16 Q Are you acquainted with any equipment failures or packer failures due to dual completion wells in that field?

A Yes, I am acquainted to this extent: where we have used our equipment to dually pump in the Shafter Lake.

Q Is this by pump or by artificial lift?

A By pump.

MR. MADOLE: That's all.

MR. SPURRIER: Does anyone else have a question of either of the Mr. Taylors?

MR. PEACOCK: There is one other question I think Mr. Charles Taylor might have had an opportunity - or did not fully explain as to his equipment on these pumping operations. And I would like to ask you this. Is this the type of equipment that you have demonstrated to us here, the type that would be used in a pumping operation?

A Yes, sir.

Q If the well were pumped?

A Yes, sir.

Q Either one or both zones.

MR. SELINGER: I would like to object to the question because on interrogation of Mr. Taylor for Baker, he said he knew nothing about the pumping part of it. I dropped any cross examination about pumping. If you are taking it up, I will interrogate further.

MR. PEACOCK: I asked if this was the type of equipment that would be used. Is there any change in this equipment necessary - if the well ceased flowing of its own accord, would they have to come to you and buy something else when they install the pump?

A No, sir, they wouldn't.

MR. SELINGER: Mr. Taylor, with respect to that, if both zones had to be produced by pump, would there be any additional equipment necessary in the well? I asked you a while ago, and if you are going to answer Mr. Peacock that way, I will ask about two zones --

MR. PEACOCK: I asked if they would have to come to him and buy any more equipment and he said no.

MR. SELINGER: That is the point. This gentleman doesn't handle that equipment. He told me he had nothing to do with the pumping part of it.

A That's right.

MR. SELINGER: Can you answer the question, Mr. Taylor, if both zones have to be pumped what additional equipment is necessary in addition to the packers you have?

A I don't know what additional equipment is necessary.

Q How do you know additional equipment is necessary?

A There isn't any of our equipment required additional.

Q You mean insofar as the packers furnished by Baker are concerned, it requires - it makes no difference whether pumper or flowing or artificial lift?

A No, sir.

MR. PEACOCK: That is all we were trying to show, I think.

MR. SELINGER: I will take it one step further.

Q Is it possible to pump both zones without the use of any of the Baker equipment?

A I am sure it is.

MR. MACEY: You mean any more packer equipment?

MR. SELINGER: No; any Baker equipment. The witness just said yes, he felt sure it was.

MR. SPURRIER: Anyone else? Do you have any further witnesses?

MR. PEACOCK: That is all we have.

MR. MADOLE: We have one witness, if the Commission please.

MR. SPURRIER: If there is no further questions of the Taylors, we will excuse them.

(Witnesses excused.)

———o———

EARL G. THURMAN,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. MADOLE:

Q State your name, please.

A Earl G. Thurman.

Q Are you a graduate engineer?

A Yes, sir.

Q What school did you attend?

A Oklahoma University.

Q What degree do you hold?

A B.S. in Petroleum Engineering.

Q When were you graduated?

A January 1950.

Q Since that time by whom have you been employed?

A Magnolia Petroleum Company.

Q At what location have you been stationed?

A At Kermit, Texas.

Q In your capacity as petroleum engineer with Magnolia, have you had experience in the Dollarhide Field?

A Yes, sir.

MR. MADOLE: I didn't ask the Commission. Will you accept his qualifications?

MR. SPURRIER: We will.

Q Where is the Dollarhide Field located?

A In the southwestern part of Andrews County, Texas.

Q Magnolia has dually completed wells in that field?

A Yes, sir.

Q Also, we might add, for the record, it is in New Mexico also. We have never been fortunate enough to produce oil therefrom.

From what formations are the wells completed?

A Magnolia dual well completions are completed in the Devonian and Silurian formations.

Q What is the approximate depth of the two formations?

A TheDevonian is an average depth of about 7500 feet and the Silurian 8300 feet.

Q What type drive is present in the field?

A The Devonian formation is a depletion type drive and the Silurian is a moderately strong water drive.

Q Are you familiar with the hydrogen sulfide content of these two formations?

A There have been numerous tests run in those two formations. The approximate hydrogen sulfide content of

the Devonian gas is about 600 grains per hundred cubic feet, and the Silurian is about 1000 to 1200 grains per hundred cubic feet.

Q How many dual completions does Magnolia have in the field?

A Twelve.

Q What type of equipment is utilized in that operation?

A Baker and Otis.

Q Could you -- In your last three years of experience -- Could you outline to the Commission the existence of any cases of communication between zones as a result of packer failure or otherwise, in the field?

A Yes. Dual completions were first started in the latter part of 1947, and really began in earnest in 1948. And Magnolia has completed twelve.

Since that time, we have experienced twelve packer leaks. I won't say packer leaks, communications, on seven wells. Five of the original twelve wells have never had communication. Of the twelve communications, it is my opinion nine of them have been the result of packer element failures and two side-door choke failures and one hole in the tubing.

Q Has that, in your opinion, caused damage to the reservoir?

16b A Well, we have made a thorough investigation to determine whether that has occurred. And we believe in two

instances we can attribute communication between the Devonian and the Silurian being a direct result of damage to the Silurian reservoir.

Q Are you through?

A I was going to add a little more and explain how it was determined.

We had two top allowable wells dually completed and flowing when communication occurred. And unfortunately it isn't always possible to detect communication at the instant it occurs. Maybe a month or several months. But before communication was detected, the wells began to pump water. We worked over and corrected communication. And after the workover, the water percentage increased to about as high as 86% on the two wells, and our production decreased almost half. And we had to install lifting equipment.

It is my opinion the communication resulting in the Silurian formation, which is the strong water drive, charging the depletion Devonian reservoir to such an extent that water was coned into the Silurian formation prematurely, which, in my opinion, has shortened the life of two of those wells.

Q Do you agree with Mr. Washburn's statement it is easy to detect failures or other instances of communication between two formations?

A No; not entirely. I have run a number of packer

leakage tests and on occasion it is very easy to detect a leak. On other occasions it has been very difficult. We have resorted to the bottomhole pressure bomb on some occasions, and have not been able to detect communication, yet we knew we had communication by the gas-oil ratio and the bottomhole pressure performance.

In one case the Silurian charged the Devonion zone reservoir pressure about 500 pounds. That was indication enough we had communication between the Devonian zone and the Silurian, for the Devonian zone was charged to such an extent you could determine from surface equipment or the bottomhole pressure bomb test.

Q Are workovers of this nature difficult?

A We have found workovers at Dollarhide to be difficult and costly and hazardous too. It is necessary, since the Silurian zone is the higher pressure zone, - that wasn't brought out, but it is quite a bit higher pressure than the Devonian - it is necessary to mud up and use water to kill it. Whenever you do this, the upper pressure zone acts as such zone and takes mud and water. And when you put the well back on production, it has been our experience two or three months swabbing and fooling around is required to get back in production.

Q I haven't brought out from you the pressures, the pressure differential. Will you outline for us that informa-

tion?

A On November 1st, 1952, the latest pressure figures I have, the Devonian reservoir had a pressure of 1970 pounds. The Silurian reservoir at that same date had a pressure of 3151 pounds, approximately. That is an absolute pressure differential of about 1181 pounds bottomhole pressure.

So acting is an oil column of about the third gradient of about 940 pounds across the packer.

Q Substantially less than in the - than is the differential in the Denton Field?

A Yes, sir.

Q Does Magnolia have any dual wells artificially lifting in the Dollarhide Field?

A Yes; we have five dual gas lift installations.

Q Has there been any problems with that artificial lifting equipment?

A Unfortunately there is a problem. And we have had some specific problems. We have used gas lift entirely to lift both zones of the dual wells. Since theSilurian zone in the wells in which we have dual gas lift equipment produces water, we have had a particularly harrassing problem of scale formation forming in our tubing and gas lift valve. And this has not only reduced the amount of production we have been able to lift because of the decrease in the effective tubing area size, but has also resulted in

having to pull the well on several occasions, increasing workover costs. We have not been able to handle the volume of oil from our dual gas lift installations we had hoped to do initially.

MR. MADOLE: I have no further questions.

CROSS EXAMINATION

BY MR. PEACOCK:

Q Mr. Thurman, is the type of packer installed in the wells in the Dollarhide Field the same type as has been demonstrated here?

A Yes, sir.

Q Were you present at the installation of these packers?

A Some of them.

Q At what time have these wells been dually completed,-- You mentioned '47 and '48 -- all twelve completed then?

A They were completed over the interval from late 1947 to late 1951.

Q Did you say there were twelve of these?

A Yes, sir.

MR. MADOLE: Twelve failures in seven wells. Not all twelve wells.

Q Oh. Well, you did, then, have packer failures in

not all twelve?

A Yes, sir.

Q But you did in seven of the wells?

A Yes, sir; that's right.

Q When did the first of these failures occur?

A About the middle of 1948.

Q Why did Magnolia continue installing them?

A We had -- That was really before my time. I don't believe I could answer that question.

Q Have they installed any since your time?

A No; I don't believe they have.

Q Then, you are not actually --

A I mean drilled the wells. I mean actually drilled the wells since my time. That is what I mean by that.

Q Has your experience been limited to this one field?

A Not entirely. I have had some experience in the Pegasus Field.

Q About how much?

A About three months.

Q Is Magnolia presently dually completing any wells in the Pegasus?

A Yes, sir.

Q In the light of their experience in the Dollarhide Field, with all these packer failures, why do you think they continue to install and dually complete these wells?

A It wasn't the recommendation of the engineering department, and that is all I could say.

(Laughter.)

Q You say it was or it wasn't?

A It wasn't.

Q Are you familiar with any of the Magnolia operations at places other than the Dollarhide and Pegasus?

A Not personally.

Q Does your company to your knowledge have any policy against oil-oil dual completions?

A No; to my knowledge they don't.

Q Does it have any oil-oil dual completions?

A Yes.

Q Do you know where?

A Dollarhide, Pegasus; the only ones I am acquainted with. I understand we have some in South Texas.

Q Do you have communication between the two zones in the Dollarhide, the one in particular you spoke of you had the great difficulty in locating? Could that have been communication around the outside of the casing?

A No, sir.

Q Have you had any experience with communication on the outside of the casing?

A No, sir; not to my knowledge.

Q Is that well still leaking?

A No, sir.

Q Did you get it fixed?

A Yes, sir.

Q It wasn't impossible, was it, then?

A No, sir.

Q Mr. Thurman, are you aware of Magnolia's having obtained a special order from the Railroad Commission of Texas on February 26th, 1951, granting them permission to dually complete the Lux No. 6 well in the East Abell-Waddell and Abell-Silurian-Montoya Fields in Pecos County, Texas?

A No, sir.

Q Are you aware of the fact that your company, Magnolia, on March the 12th, 1951, obtained a special order from the Railroad Commission of Texas, granting it permission to dually complete its Russel No. 7 well in the Falfurrias Field in Jim Wells County, Texas?

A No, sir.

Q Are you aware your company, Magnolia Petroleum Company, on November 13th, 1951; August 4th, 1952; February 25th, 1952; August 2nd, 1951; October 13th, 1952 --

MR. MADOLE: Are these all oil-oil completions?

MR. PEACOCK: No, sir; all dual completions.

MR. MADOLE: That is what I thought.

Q October 8th, 1951; March 23rd, 1953; and August 4th, 1952, obtained special orders from the Railroad Com-

mission of the State of Texas, authorizing it to dually complete wells?

A No, sir.

MR. PEACOCK: That is all we have, Mr. Spurrier.

———o———

REDIRECT EXAMINATION

BY MR. MADOLE:

Q Just one question. Did I understand those are oil-oil completions?

MR. PEACOCK: Not all of them. You want to know which ones are?

MR. WHITE: There has been no evidence introduced there have been any so far.

MR. MADOLE: The man said he didn't know anything about them. I think they are gas-oil completions. I think we will skip it and go on with the witness.

MR. PEACOCK: If you want the information, we have it here.

MR. MADOLE: I don't care.

MR. SPURRIER: I don't care.

Q Mr. Thurman, there was reference to dual completions in the Pegasus Field. We have only one dual completion there; is that correct?

A To the best of my knowledge that is correct; yes, sir.

Q Are you familiar with the fact that the direct offset to that dual completed well is a dually completed well?

A No, sir.

Q You are not familiar with the fact that we protested that application?

MR. PEACOCK: Objection.

A I am familiar with the fact that we protested it; yes, sir.

Q Are you familiar with the fact that we protested the application for dual completion as a diagonal offset to that well prior to the time we drilled it?

A I don't know on that.

Q This is the third well drilled in the Pegasus Field on dual completion, isn't it?

MR. PEACOCK: Mr. Spurrier --

A I believe that's correct.

(Off the record.)

MR. MADOLE: I have no further questions.

MR. SPURRIER: Does anyone have a further question of Mr. Thurman? If not, the witness may be excused.

(Witness excused.)

MR. SPURRIER: Is there any further comment in this case?

MR. SELINGER: I would like to make astatement,

if statements are in order, as to our position for Skelly Oil Company.

We don't have a fixed policy of opposing dual completions as such. However, we don't look with much favor on such completions. We originally opposed Gulf's application in Cases 92, 93 and 94, as some of the members of the Commission may well know. We did it on the grounds that all the equipment had to be under the most ideal conditions in order for it to function 100%.

Now, in my attempted cross examination I attempted to show the Commission in a 5½-inch casing well you had to put in all this equipment. Now, the applicant brought the Otis and Baker people, and we found out there was additional equipment that had to be put in, depending upon the stage of the development. You have not only this equipment, but have two macaroni strings that had to be in there. And it became evident with all that equipment in a 5½-inch hole you just weren't going to recover that oil through that well as compared with a single completion from the Wolfcamp.

As to the Otis and Baker people, we believe their equipment is good and will continue to buy it, and we think they have good equipment. But we question the accuracy of their equipment at depths of 12,500 feet. That is not saying, five years from now we won't accept it, or

two years hence. We will accept the equipment just like the oil industry generally will accept all progressive equipment.

And I think in this case in the Denton Field that when you take into consideration a well can be drilled to the Wolfcamp and a well can be drilled to the Devonian, and from Phillips' own testimony they failed to show economically they cannot drill separate wells to each of the formations. And for that reason and that reason alone we think they should be denied their application for dual completions in the Denton Pool.

MR. MADOLE: I think Magnolia's position in this case is clear. The only observation I would like to make, without getting into a further argument, is the economics as testified to by Mr. Washburn as to the cost of these wells. On the testimony of Mr. Selinger and as assessed by Mr. Washburn, it was brought out that the taxes on this recovered oil, the income tax, is deducted. Well, if that is true, then as you all know, anybody drilling oil wells to save dollars, you apply the saving rather to the $200,000,
17b you won't have but a $98,000 cost in your well. If you put it on one side, you ought to take it off the other.

For that reason, I don't think the economics of this dual completion have been justified.

MR. SPURRIER: Anyone else before Mr. Peacock sums

this up.

MR. NESTOR: I have a statement for the Shell Oil Company in Cases 556 to 559, inclusive, and I will have a copy for the court reporter.

The Oil Conservation Commission of the State of New Mexico has previously stated that it has yet to be convinced of the soundness of oil-oil dual or multiple completions as a general practice in New Mexico and has denied all previous requests for such completions. Most recent examples were Order Number R-78 in Case Number 274, Order Number R-79 in Case Number 275 and Order Number R-233 in Case Number 426. It is Shell's understanding that the principles heretofore controlling the Commission's action with reference to oil-oil dual or multiple completions have been (1) that such completions do not assist it in the performance of its duty of conservation of oil and gas and the protection of correlative rights except in the instance where one of the affected pools will not justify development on its own merit, and (2) that such completions are more apt to result in waste and violation of correlative rights than ordinary completions in the following respects:

1. Oil-oil dual completion often results in the abandonment of one or both zones at a time when there is a reserve therein that would be produced under normal single zone completions. This is because workovers of dual comple-

tions are more expensive than workovers of ordinary completions and will on the average occur at least twice as often, and risk of damage to each reservoir occurs whenever a workover occurs though the occasion therefor may have involved only one of them.

2. Artificial lift in dual completions where production from both horizons must be lifted simultaneously is not as efficient or as practical as in ordinary completions. It seems probably that both the Devonian and Wolfcamp zones at Denton will require artificial lift at the same time. Recent data indicate that eleven Denton Wolfcamp wells are now on artificial lift and that artificial lift installations are pending in at least eight additional wells. This total figure of nineteen wells represents 37 per cent of the 51 field wells.

3. Annular flow is less efficient than flow through tubing and consequently waste of reservoir energy occurs when an oil zone is flowed through the annulus.

4. The danger of communication of reservoir fluids from one zone to another which exists in any well is greatly increased in a dually completed well. This is true because in a dual completion both reservoirs are opened into a single well bore and separated only by a packer which is subject to deterioration with age and exposure to the reservoir fluids.

5. The Oil Conservation Commission of the State of

New Mexico is without sufficient engineers and technical employees to act as a policing group in the checking of packer tests and in the preventing of damage resulting from careless dual completion operations.

It is Shell's opinion that such principles are sound and should continue to be the basis for action by this Commission with reference to requests for oil-oil dual completions. Shell Oil Company therefore respectfully requests that the Commission deny the applications of the Phillips Petroleum Company in Case Numbers 556, 557, 558 and 559, and this even though Shell Oil Company is a part owner with Phillips Petroleum Company in the Fort 1 and Fonze 1 wells involved in Cases Numbered 556 and 557.

MR. SPURRIER: Anyone else?

MR. JOHNSON: J. P. Johnson with the Atlantic Refining Company.

The Atlantic Refining Company concurs with the Phillips Petroleum Company in their application to effect four dual oil-oil completions in the Denton Field. Atlantic has 50% interest in two of the wells in this application; namely, Phillips' Denton 12 and 13 wells now completed in the Devonian reservoir. In addition to interest in these two wells, Atlantic is owner and operator of 22 wells in the field, and has an interest in 32 wells operated by other companies.

Dual oil-oil completions between the Devonian and Wolfcamp pools are recommended from the standpoint of mechanical feasibility. Atlantic has had experience with numerous dual completion operations and found them to be mechanically and economically feasible.

Atlantic is of the opinion that the paramount consideration here is whether the production can be separated effectively, and the evidence presented on behalf of Phillips Petroleum Company and our past experience indicates it can be done. It is believed proper maintenance and separation of production can be insured by the Commission by appropriate rules and regulations calling for periodic checks to be performed by the operator.

MR. SPURRIER: Anyone else?

MR. CHRISTIE: R. S. Christie of Amerada.

I just wanted to note our position which we have stated before.

While we have no direct interest in these cases, we are still opposed to oil-oil dual completions as a general principle.

MR. SPURRIER: Anyone else?

MR. SPELLMAN: B. K. Spellman for the Ohio Oil Company.

The Ohio is opposed to the granting of Phillips' application for dual oil-oil completions in the Denton Field.

We do not believe the reservoirs are the type which would justify dual completions, and therefore it would be better conservation practice to continue single completions in each reservoir.

MR. SPURRIER: Anyone else? Mr. Peacock.

MR. PEACOCK: To add to what the gentleman from Atlantic so well stated, I would like to say this: First of all, Shell's interest in these two wells he mentioned is one plus percent. It is less than 2%.

(Laughter.)

MR. PEACOCK: We believe that we have presented testimony in evidence to this Commission which proves that dual completion of wells in the Fonzo, Fort and Denton 12 and 13 wells is feasible and practicable. Every company here that has opposed us has dually completed wells. And although they are not here in New Mexico in oil-oil, most of them have oil-oil completions outside of the State of New Mexico.

The equipment which we demonstrated to the Commission is of the type that the Commission has approved for use in dual completions in gas-oil production in this state. And it is our position that this type of equipment will be as effective in preventing commingling and communication in an oil-oil dual completion as it is in a gas-oil dual completion.

Now, we have this further argument applying to the

Fort and Fonzo wells, which I admit doesn't apply to the Denton No. 12 and 13. We could drill twin wells there and pay them out, but could not do so in the Fort and Fonzo No. 1. The Fort will not pay back drilling costs - the Fonzo will not pay back drilling costs. The Fort, we will break even. That is according to the estimates of our engineers. That is the way we determine whether we will or will not drill wells. The same as every company determines the matter.

The Fonzo and Fort won't be drilled and it will result in this, that the oil will lie there in the Wolfcamp formation and it won't be produced under these two 40-acre units. The royalty owners will losetheir royalty. I don't believe any of them could maintain an action against us successfully for failure to drill wells to the Wolfcamp formation in either the Fonzo or Fort 40-acre tracts. They would have to prove that a reasonably prudent operator would drill such a well, and no court in this state will hold a reasonably prudent operator will drill a well where he will lose money or where he will just exactly make back what he spends.

Only one other item here I would like to bring to the attention of the Commission. There are no oil-oil dual completions in this state. TheCommission has had, under its powers, has had the opportunity to study these oil-oil

dual completions, and it has not determined they are not feasible. And it has continued to permit completions, dual completions for gas-oil production. Now, if there were an oil-oil dual completion available for study to this Commission, it could, as a result of its study and as a result of the information which would be available to it, which is not available to it at this time, - those oil-oil completions lie outside this jurisdiction - it would be in a better position to regulate the production of oil from two zones out of the same hole.

Now, I think that all the proponents and opponents of these applications have agreed in the past few years there have been very - at least some improvement - in the equipment for dual completions. Now, Mr. Selinger said his company might in two years change its mind on this dual completion --

MR. SELINGER: Or in five years.

MR. PEACOCK: Or in five years. That is a recognition of the fact that this type of equipment is being improved.

MR. WHITE: But this exhibit is dated 1951; 5-24-51.

MR. SPURRIER: That is the Otis equipment.

18 MR. PEACOCK: Well, Phillips is in that position now. We are willing to try and see, and we urge the Commission to grant these applications.

MR. SPURRIER: Does anyone else have a comment in this case? If not, we will take the case under advisement and move on to the nomenclature cases.

---o---

Please return this to

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

CASE 2054 In the matter of the application of Phillips Petroleum [illegible] for permission to effect a dual completion of [illegible] 1, NE/4 NE/4 Section 35, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,336 to 12,718 feet, and gas from the Wolfcamp formation after perforating from 9000 to 9260 feet.

CASE 2071 In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its [illegible] 1, NE/4 NE/4 Section 35, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico (in the Denton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,336 to 12,[illegible] feet, and gas from the Wolfcamp formation after perforating from [illegible] feet.

(contd next page)

TRANSCRIPT OF HEARING

July 16, 1953
Date

BEFORE: Honorable Ed. L. Mechem, Governor
Honorable E. S. Walker, Land Commissioner
Honorable R. R. Spurrier, Director, OCC

STATE OF NEW MEXICO)
ss
COUNTY OF BERNALILLO)

I HEREBY CERTIFY That the within transcript of proceedings before the Oil Conservation Commission is a true record of the same to the best of my knowledge, skill, and ability.

DONE at Albuquerque, N. M., this 30th day of July 1953.

E. E. Greeson

My Comm. Ex.:
August 4, 1956

E. E. Greeson
Notary - Reporter

MAIN OFFICE OCC

1951 OCT 4 AM 8:50

SHELL OIL COMPANY

MIDLAND AREA

MAILING ADDRESS
P. O. BOX 1509
MIDLAND, TEXAS

GENERAL OFFICES
PETROLEUM BUILDING
MIDLAND, TEXAS

September 30, 1954

Mr. Rowley C. Kerr
P. O. Box 1650
Tulsa, Oklahoma

Mr. Willard F. Kitts and
Mr. Mel T. Yost
P. O. Box 871
Santa Fe, New Mexico

In Re: Phillips Petroleum Company v. Oil Conservation Commission, et al - No. 11422, In the District Court of Lea County, New Mexico.

Gentlemen:

Herewith we enclose to each of you a copy of the Interrogatories propounded to Phillips Petroleum Company by defendant Shell Oil Company, which Interrogatories we have today served on Phillips Petroleum Company by mailing them to Mr. C. J. Roberts, its attorney of record.

Very truly yours,

Richard L. Hughston, Attorney

RLH:AW
Enc.

IN THE DISTRICT COURT OF LEA COUNTY,
STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY, Plaintiff,	)	
v.	)	NO. 1122
OIL CONSERVATION COMMISSION OF NEW MEXICO, ET AL., Defendants.	)	

INTERROGATORIES PROPOUNDED TO PHILLIPS PETROLEUM COMPANY BY DEFENDANT SHELL OIL COMPANY

TO PHILLIPS PETROLEUM COMPANY:

Shell Oil Company, defendant, propounds the following interrogatories to Phillips Petroleum Company, plaintiff, under Rule 33 of the Rules of the District Courts of the State of New Mexico, and request Phillips Petroleum Company to deliver answers thereto within the time provided therefor in said rules, to-wit:

Interrogatory No. 1: State the name and address of the officer or agent who is answering these interrogatories on behalf of Phillips Petroleum Company.

Interrogatory No. 2: State the position with Phillips Petroleum Company of the person named in answering Interrogatory No. 1.

Interrogatory No. 3: State the duties of the officer or agent named in answering Interrogatory No. 1.

Interrogatory No. 4: State as to each well owned or operated by Phillips Petroleum Company that is or was completed so as to produce simultaneously from two or more oil or gas or oil and gas accumulations:

(a) The name thereof;

(b) The field and State of the location thereof;

(c) The depth and name of each formation in which a completion was made for separate production;

(d) The type of the reservoir recovery mechanism (i.e. dissolved gas, water drive, gas cap expansion, etc.) in each such formation and the degree of effectiveness thereof;

(e) The dates of each completion and each abandonment of a completion in a separate reservoir;

(f) The bottom hole pressure in each reservoir in which the well was completed at the time of completion and if production from any reservoir has been abandoned at the time of abandonment thereof;

(g) The reservoir, if any, from which artificial lift is occurring or has occurred;

(h) The date, cost and nature of each workover thereon; and

(i) Each item of below surface equipment replaced in each such workover.

Interrogatory No. 5: Has Phillips Petroleum Company ever opposed before a State Oil and Gas Administrative Agency the application of another operator for a permit to dually complete an oil-oil well?

Interrogatory No. 6: If you have answered the immediately preceding interrogatory in the affirmative, list the wells, fields and States involved in your oppositions.

Interrogatory No. 7: Is it not a fact that so recently as August 11, 1954, Phillips Petroleum Company offered to join Shell Oil Company in drilling a Wolfcamp well on land in which each of those companies owned an undivided mineral interest, to-wit, the Northwest Quarter ($NW\frac{1}{4}$) of the Northwest Quarter ($NW\frac{1}{4}$) of Section 26, Township 14 South, Range 37 East, Lea County, New Mexico, in the Denton Field, but refused to join it in drilling a well at said location to the Devonian formation?

Interrogatory No. 8: What is your definition of "paraffin intermediate base" crude.

Interrogatory No. 9: List each dual oil-oil well owned or operated by Phillips Petroleum Company from which paraffin intermediate base crude, as you define that term, is produced.

Interrogatory No. 10: What is your definition of "sour" oil.

Interrogatory No. 11: List each dual oil-oil well owned or operated by Phillips Petroleum Company from which sour oil, as you define that term, is produced.

Interrogatory No. 12: Give an itemized statement of the cost of drilling and completing a Wolfcamp well in the Denton Field, Lea County, New Mexico.

Interrogatory No. 13: Give the highest estimate that any of your reservoir engineers has made of the amount of oil that will be recovered by a Wolfcamp well in the Denton Field, Lea County, New Mexico.

Interrogatory No. 14: What is your estimate of the amount of oil that will be recovered by a Wolfcamp well on the quarter-quarter section as to which you are here seeking a permit for a dual completion.

Interrogatory No. 15: State the amount by which the estimate given in the answer to the immediately preceding interrogatory is above or below the average recovery to be expected from a Wolfcamp well in the Denton Field, according to your estimate, and why in your opinion it is above or below such average.

Interrogatory No. 16: As to oil-oil duals, do you agree that the cost of operation, including additional expense incident to bottom hole pressure surveys, to periodic checks for communication between reservoirs and to workovers, is higher than that for operating the two wells necessary to replace the oil-oil dual?

Interrogatory No. 17: As to oil-oil duals, do you agree that more workovers will occur thereon on an average than would occur on the two wells necessary to replace the oil-oil dual.

Interrogatory No. 18: As to oil-oil duals, do you agree that workovers thereon will be more expensive on an average than those on a well completed to produce from only one reservoir.

Interrogatory No. 19: Did you furnish estimates of costs to Atlantic Refining Company of the Wolfcamp wells drilled on lands in Section 11, Township 15 South, Range 37 East, in the Denton Field, Lea County, New Mexico, in which both you and Atlantic Refining Company owned interests?

Interrogatory No. 20: If you have answered the immediately preceding interrogatory in the affirmative, please attach copies of such estimates.

Interrogatory No. 21: Give the itemized statements of the actual

costs of the Wolfcamp wells drilled on the lands mentioned in Interrogatory No. 19.

Interrogatory No. 22: List each dually completed well (oil-oil, gas-gas, or oil-gas) where after a workover you have had difficulty in returning one or the other of the formations to production, the location thereof, and the date of the workover.

SETH AND MONTGOMERY
111 San Francisco Street
Santa Fe, New Mexico

PAXTON HOWARD and
RICHARD L. HUGHESTON
P. O. Box 1509
Midland, Texas

By Richard L. Hughston

ATTORNEYS FOR SHELL OIL COMPANY

CERTIFICATE OF SERVICE

I here certify that on this 30th day of September, 1954, a copy of the foregoing interrogatories to the Phillips Petroleum Company was served on Mr. C. J. Roberts, Attorney for Phillips Petroleum Company by placing copy of same in the United States Post Office, Midland, Texas, duly stamped and addressed to him at P. O. Box 1751, Amarillo, Texas.

Richard L. Hughston

costs of the Wolfcamp wells drilled on the lands mentioned in Interrogatory No. 19.

Interrogatory No. 22: List each dually completed well (oil-oil, gas-gas, or oil-gas) where after a workover you have had difficulty in returning one or the other of the formations to production, the location thereof, and the date of the workover.

SETH AND MONTGOMERY
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Richard L. Hugheston

ILLEGIBLE

IN THE DISTRICT COURT OF LEA COUNTY
STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY,

Plaintiff,

vs.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, COMPOSED OF Hon. Edwin L. Mechem, Governor and Chairman, Hon. E. S. Walker, Commissioner of Public Lands, Member, and Hon. Richard S. Spurrier, State Geologist and Secretary,

Defendants.

No. 11482

ANSWER

Comes now the above named defendant and in answer to the complaint herein states:

1. It admits the allegations contained in Paragraphs numbered 1, 2 & 3.

2. In answer to Paragraph numbered 4, defendant admits that plaintiff is and at all material times was engaged in the production of oil and gas within the State of New Mexico and as to the remaining allegations contained therein this defendant does not have sufficient information or knowledge upon which to form a belief as to the truth of the matters therein contained and therefore denies the same.

3. Defendant admits the allegations contained in Paragraph numbered 5.

4. In answer to paragraph numbered 6, defendant expressly denies that plaintiff now is or at any material time has been adversely affected by the orders of the Commission therein complained of or any other order of this Commission material to the issues involved herein.

5. In answer to paragraph numbered 7 of the complaint defendant expressly denies that said well can or is capable of being non-wastefully operated so as to produce from both the Devonian and Ordovician formations as therein alleged; and in further answer to said allegations contained in said paragraph [illegible] completion of said well as contemplated

GILBERT, WHITE AND GILBERT
ATTORNEYS AT LAW
SANTA FE, NEW MEXICO

ILLEGIBLE

and proposed by plaintiff is hazardous, wasteful and contrary to the prudent and reasonable conservation practices within the oil industry, and that said plaintiff can economically produce oil from such formation by the drilling and operation of a separate well to such oil reservoir or formation in question.

6. Defendant admits the allegations contained in paragraphs numbered 8, 9, 10, 11 and 12 of the complaint.

7. Defendant denies each and every allegation contained in paragraphs numbered 13, 14 and 15 of the complaint.

WHEREFORE, defendant prays that plaintiff take nothing by its complaint and that this Honorable Court enter its order affirming each and all of the orders of the Commission complained of by plaintiff herein.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

By Lewis

By Jas. A. Graham

Its Attorneys

GILBERT, WHITE AND GILBERT
ATTORNEYS AT LAW
SANTA FE, NEW MEXICO

CERTIFICATE OF SERVICE

I hereby certify that I have this 29 day of January, 1954, mailed a copy of the foregoing Answer to Jason W. Kellahin addressed to him at P. O. Box 791, Santa Fe, New Mexico, he being one of the attorneys of record for the Complainant herein.

Lewis

One of the Attorneys for Defendant.

Case No.

557

Application, Transcript,
Small Exhibits, Etc.

CASE 557: Phillips' dual completion of Fonzo No. 1, NW NW 35-14S-37E (oil from Devonian and oil from Wolfcamp)

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

CASE 556: (Re-hearing) Notice is hereby given by the State of New Mexico, through its Oil Conservation Commission, that Phillips Petroleum Company, upon proper petition, has requested a re-hearing in Case 556; that in said petition, petitioner asks recision of Order No. R-350, which order refused petitioner's application for permission to effect dual completion of its Fort No.1 well, NE/4 NE/4 Section 34, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico, in such manner as to permit production of oil from both the Devonian and Wolfcamp formations; that the Commission, by its Order No. R-350-A, has granted said re-hearing and set it for 9 a.m. on October 15, 1953, at Mabry Hall, Santa Fe, New Mexico, at which time and place petitioner and other interested parties will be heard.

CASE 557: (Re-hearing) Notice is hereby given by the State of New Mexico, through its Oil Conservation Commission, that Phillips Petroleum Company, upon proper petition, has requested a re-hearing in Case 557; that in said petition, petitioner asks recision of Order No. R-351, which order refused petitioner's application for permission to effect dual completion of its Fonzo No.1 Well, NW/4NE/4 Section 35, Township 14 South, Range 37 East, Lea County, New Mexico, in such manner as to permit production of oil from both the Devonian and Wolfcamp formations; that the Commission, by its Order No. R-351-A, has granted said re-hearing and set it for 9 a.m. on October 15, 1953, at Mabry Hall, Santa Fe, New Mexico, at which time and place petitioner and other interested parties will be heard.

TRANSCRIPT OF HEARING
October 15th, 1953

BEFORE: Honorable Ed. F. Mechem, Governor
Honorable E. S. Walker, Land Commissioner
Honorable N. B. Spurrier, Director, OCC

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Commission is a true record of the same to the best of my knowledge, skill, and ability.

DONE at Santa Fe, N. M., this 17th day of October, 1953.

Virginia L. Dillon
Reporter

SUBSCRIBED AND SWORN TO before me this 17th day of October, 1953.

Notary Public

My Commission Expires:

2

CASE 556: In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Fort Well No. 1, NE/4 NW/4 Section 34, Township 14 South, Range 37 East, [illegible], Lea County, New Mexico (in the Benton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,536 to 12,710 feet, and oil from the Wolfcamp formation after perforating from 9,680 feet to 9,360 feet.

CASE 557: In the matter of the application of Phillips Petroleum Company for permission to effect a dual completion of its Fonzo Well No. 1, [illegible] Section 35, Township 15 South, Range 37 East, [illegible], Lea County, New Mexico (in the Benton Pool), in such manner as to permit production of oil from the Devonian formation through existing casing perforations 12,456 to 12,650 feet, and oil from the Wolfcamp formation after perforating from 9590 feet to 9260 feet.

[illegible]

CHM. SHUMAN: We will now take up Cases 556 and 557.

(Mr. Graham reads the advertisement of the case.)

JUDGE FOSTER: If it please the Commission, I have Mr. Jacob L. Williams here as a witness. He has not previously testified before the Commission, and therefore I will qualify him.

[illegible]

JACOB L. [illegible]

having been first duly sworn, testified as follows:

[illegible]

BY [illegible]:

[illegible] the witness's name and address for the Commission?

Jacob L. [illegible].

[illegible]

[illegible], [illegible].

- 2 -

Q By whom are you employed?

A Phillips Petroleum Company.

Q In what capacity?

A Geologist

Q From what school are you a graduate?

A Iowa State College.

Q What year did you graduate?

A 1943

Q With what degree?

A Bachelor of Science.

Q And how long have you practiced your profession as geologist?

A Eight years.

Q All of that time with the Phillips Petroleum Company?

A Yes.

Q What are your duties and where are you located ?

A Midland, Texas.

Q You are familiar with West Texas, New Mexico area of oil and gas production, are you?

A Yes.

Q [illegible] a study of the Cooper Pool in which Phillips [illegible]?

A Yes.

Q [illegible] a study of the area [illegible] a [illegible]
[illegible] Phillips Petroleum Company.
[illegible]?

A Yes.

Q What area is that?

A Denton Pool

Q And have you prepared some Exhibits and cross-sections with respect to testimony you wish to present?

A Yes.

JUDGE FOSTER: We submit the witness has been qualified, Mr. Commissioner.

COM. SPURRIER: He is qualified.

Q (By Judge Foster): Mr. Williams, will you turn here to the board and just designate the first instrument on the board there as Phillips Petroleum Exhibit No. 1. ?

(Phillips Petroleum Exhibit No. 1 is identified by Mr. Williams.)

Q Now, will you please tell just what that exhibit represents?

A Exhibit No. 1 is a map of the top of the Wolfcamp formation. This particular map I should explain to be on a scale of one inch equals two thousand feet and, some copies I have made here are on a scale that one inch equals four thousand feet.

Q That is a map that reflects the Phillips Petroleum Company's Hart No. 1 on its Ponzo Lease in the Denton Pool?

A Yes.

Q Will you tell the Commission what that map shows in respect to [illegible]

A [illegible] shows [illegible] shows [illegible] are located on the fringe, in this vicinity here.

Q What do you mean by "in this position here"?

A Sections 11, 15, 37 and Sections 2, 15, 37 are located on the crest of the Wolfcamp structure. The Phillips' Fonzo Well No. 1 and Fort No. 1 are located off of the crest on the northwest fringe of this structure.

Q On what quarter section are those located?

A The No. 1 Fort is located on the NE/4 of the NE/4 of Section 34, Township 14 South, Range 37 East, NMPM.

Q And the other one?

A The Fonzo Well No. 1 is located on the NW/4 of the NE/4 of Section 35, Township 14 South, Range 37 East, NMPM.

Q In respect to the structural position, what do they show?

A That the No. 1 Fort and No. 1 Fonzo are located on the northwest flank of the dome structure.

Q I see you have some legend on the map. Will you explain it?

A The blue encircling the different wells designates that that well is producing from the Wolfcamp and the red pertains to the Wolfcamp formation.

Q There is some other color there, is there not?

A Yes. Yellow shows the leases in which Phillips has an interest.

Judge Foster: We offer in evidence Phillips exhibit No. 1.

Mr. [illegible]: Without objection, it will be admitted.

(Phillips Exhibit No. 1 received in evidence.)

Q Will you please take that Exhibit down and put up Phillips Exhibit No. 2, identifying it please?

(Phillips Exhibit No. 2 identified.)

Q Now, will you just tell the Commission, without explaining anything that is on the map, just what sh t map is? What is that?

A That is a cross section drawn North-South through the Phillips No. 1 Fort and showing the relation of the Volcano to the lower formations.

Q What is the source of the information reflected on that map?

A Electro-logs.

Q And was that prepared by you or under your supervision?

A Yes.

Q And that correctly reflects the conclusion there as you've pictured it on the Exhibit in respect to wells shown on there?

A Yes.

Q Will you please explain to the Commission and tell them what fools are on here as they relate to that?

A I will start [illegible]

[illegible]

(Whereupon, [illegible].)

A It sets forth the the locations of Phillips - No.1 Fort starting at Magnolia going into Magnolia and Phillips No. 1 Fuqua and south to Atlantic C-M and Atlantic through Jones.

Q You say it extends north to the locations. What is the distance of the locations in that area?

A 1300 feet.

Q You are speaking about well Log 2 on?

A Yes.

Q And that is on the 40 acre proration units in that area?

A Yes, sir. This map is strictly open of Wolfcamp, so it does not show much structure on this particular cross section, but it does show the relationship of the Wolfcamp to the underlying formations. For instance, the distance from the top of Wolfcamp on No. 1 Fort at this base and west on top here is 750 feet, and the distance from here to here,

Q Where is from here to here?

A From the top of Wolfcamp then to the top of Devonian is about 3100 feet. Another thing is shown in the drill tests in the upper Wolfcamp. You will notice tests in the upper Wolfcamp recover oil in some cases, [illegible] Wolfcamp [illegible],

[illegible] drill stem tests. It have and

[illegible]

[illegible]

- 7 -

Q That is oil in the pipe or hole?

A In the pipe.

Q And beyond that, by a drill stem test, it recovered mud?

A Yes.

Q You speak about a drill stem test. Where was that?

A That was on Phillips' No. 1 Fort.

Q What did it show?

A On these two tests in the upper part of the Wolfcamp, we got 11.3 barrels of oil on the first and 32 barrels of oil on the second. There were three tests there below that and they recovered mud.

Q Compare Phillips' Petroleum Company's No. 1 Fort with No. 1 Magnolia Monument with drill stem tests. How does that compare? How do those wells compare?

A Magnolia recovered 7,245 barrels of oil and this one recovered 11.3 barrels of oil on the first test and 32 barrels of oil on the second test.

Q That well to you mean when you say "this one"?

A The Phillips' Fort No. 1.

Q And it is on the same level in the pay?

A Yes.

Q So the Magnolia well is not a commercially better well than Phillips No. 1 was?

A No.

Q [illegible]

No. 1 Fort on drill stem basis?

A Yes.

Q If you were to select the best one, which one would that be?

A Magnolia No. 1 Maxwell. We do not have any information on the Atlantic well.

Q How far from the Phillips Fort No. 1 was the Atlantic's No. 1 Dickson

A About 2600 feet.

Q Would that be about one-half mile?

A Yes.

Q And, on the basis of drill stem test comparison, how does the Phillips' Fort No. 1 compare with Atlantic No. 2 Dickson 834?

A Fort No. 1 recovered 1230 feet of oil and Atlantic No.2 Dickson 834 recovered about 1900 feet of oil.

Q Would you say that Atlantic No. 2 Dickson was substantially a better well than Phillips No. 1 Fort on the basis of the drill stem tests?

A It is somewhat better.

Q You are looking at the [illegible] well as being as the best well?

A Atlantic No. 2 Dickson 834.

Q It is the best well [illegible]?

A Atlantic No. 2 Dick[illegible] well [illegible] hole of oil [illegible] 1900 feet of oil in another hole

recovered fifteen feet of mud.

Q Comparing Atlantic No. 2 Jones with Phillips Fort No. 1 on drill stem tests, how did they compare?

A I would say this one had a much better test.

Q You would take Atlantic No. 2 Jones against Phillips' No. 1 Fort, would you?

A Yes.

Q What other information have you collected on that map?

A Another thing of interest is that the oil recovered is from the very top of the Wolfcamp.

Q In what well?

A In all of them.

Q And the tests below the top did not get any?

A No.

Q How do you account for that?

A Through lack of permeability.

Q When you say "lack of permeability", that does not mean anything to me. What are you talking about? Put that in the record.

A Permeability is the ability of the formation to allow fluid to pass through it.

Q To turn it loose the oil in the drill hole?

A Yes.

Q You say the lack of permeability of Phillips' No. 1 causes it to -- the other wells would have on the same section?

A It is much lower.

Q Does that mean better or worse?

A It is worse.

Q Does that mean that you are less likely to recover substantial amounts of oil from Phillips Fort No. 1 than from the other wells?

A Yes.

Q It is just a poor well?

A Yes.

Q That is what these facts represent?

A Yes.

Q Is that what the map is for?

A Partially, and also to show the relationship between the Wolfcamp and the underlying formations.

Q Just show us, if you will, what the relationship is between the Wolfcamp and the underlying formations, well by well.

A It is pretty much the same for all of them. It shows the Wolfcamp is about 1750 feet thick.

Q The Wolfcamp formation from top to the base?

A Yes.

Q That does not mean you have 1750 feet of pay section, does it?

A Definitely not. Let me explain that to you. Phillips Fort No. 1, in the Wolfcamp I see a section to about 650 feet thick. [illegible] to be limited [illegible] feet thick. Below that is Wolfcamp 110 feet thick shale and then Bonanza.

Q In what formation is the gas production in that area, from those wells shown in the cross section?

A In the very upper part of the Wolfcamp and in the Devonian.

Q These other formations, the Upper Mississippi and the Lower Mississippi and other formations, are not productive of oil and gas?

A Not in this cross section.

Q They do not produce?

A There was one well that produced for awhile, but it is in the Upper Mississippi.

Q Those formations are not productive formations in this pool?

A No.

Q What other information is reflected on that map?

A That is about all.

Q Will you take that down and go to the next one. Just before you take that down, let me ask you what is the distance from Phillips' Fort No. 1 to Atlantic No. 1 Jones?

A About three-quarters of a mile.

Q That is about three-fourths of a mile?

A Yes.

Q Now here, you do not show it, but is that a fact?

A That is correct. No. 3 is dry.

Q You have a drill stem test on it.

A No, I do not. [illegible], it [illegible] will be not gauge.

Q Just the Devonian is reflected in this cross section?

A Yes.

Judge Foster: If the Commission, we would like to offer in evidence Phillips' Petroleum Exhibit No. 2.

CONF. [illegible]: Without objection, it will be admitted.

(Phillips Petroleum Co. Exhibit No. 2 admitted in evidence.)

Q (By Judge Foster) Will you mark that exhibit on the board as Phillips' Exhibit No. 3 please?

(Phillips Petroleum Co. Exhibit No.3 identified.)

Q Without stating what Exhibit No. 3 reflects, just state what it is.

A This is a North-South cross section through Point B shown on the map.

Q That map?

A On the Wolfcamp top of Penion Pool. It shows essentially the same thing as Exhibit No. 2 except it goes through Phillips No. 1 York. It is one location west in depth from Exhibit No. 2, which is [illegible] section.

Q You [illegible] No. 1 instead of York, do you not?

A Yes.

[illegible] Exhibit [illegible]. It

[illegible], at the [illegible] on the cross-section, from the [illegible]. Is that the [illegible] information?

A Yes, [illegible]

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is in the process of being completed now.

Q Is there anything that you want to add in effect to that cross section that you did not talk about on the other one?

A No.

Q On Phillips Pope well No. 1, what did the drill stem tests show?

A There were two tests in the upper part, which is the most prospective. The two tests taken recovered no formation fluid.

Q You got nothing on that?

A No.

Q That makes it still a poor well as well as the other Phillips well?

A I do not think so, because the upper part was not tested. Some of these other drill stem tests are of interest. Magnolia No.16 Pope tested the upper, most prospective part, and recovered 1630 feet of oil and ninety feet oil and gas cut mud.

Q Is it a good or bad well?

A To me it would be hard to get much more. It is a pretty good well.

Q Have you any other drill stem tests that may be of interest?

A The Magnolia No. 4 Pope well flowed 47 barrels of oil in one hour and, when they tested it the second time, they got no fluid.

Q What does that mean?

A It indicates it might make a well in the upper Wolfcamp.

Q Referring to Phillips Ponza No. 1, how does it compare?

A It is hard tosay because it was not tested in the same zone.

Q Why did you not test it?

A I do not know.

Q There is nothing unusual about it?

A No; It could probaoly be tested.

Q But you do not know why it was not tested?

A No, I do not.

Q Have you more other drill stem tests?

A Between 3 & 4, Deck 1 was tested in the upper part and recovered 330 feet of oil and 270 feet of oil and salt water.

Q What does that indicate?

A It indicates to me there is not as much oil was there was more on the top of salt but water in drill pipe.

Q Now, in the No. 2 Deck you ran a drill stem test?

A Yes, I got recovered 6,450 feet of oil.

Q That indicates a pretty fair well?

A Yes.

The Atlantic No. 1 Jones tested 390 feet of oil and gas mud and 150 feet or slightly over of gas mud.

Q In the upper Wolfcamp?

A Yes.

Q When you say "the upper Wolfcamp", what do you mean?

A I am meaning the upper 100 to 150 feet that has the best permeability.

Q Does that indicate the Atlantic No. 1 Jones is a pretty good well?

A Not to me.

Q Any other statements you want to make?

A No.

JUDGE FOSTER: We would like to offer in evidence Phillips Petroleum Company Exhibit No. 3.

C.W. SPRADLIN: Without objection, it will be admitted.

(Phillips Petroleum Company's Exhibit No. 3 admitted in evidence.)

Q (By Judge Foster) Will you please identify the Exhibit on the board as Phillips Exhibit No. 4?

(Phillips Petroleum Company's Exhibit No. 4 marked for identification.)

C.W. SPRADLIN: We will take a recess until 1:30.

(Thereupon, at 12:30 p.m. the hearing recessed until 1:30 p.m. at the same place.)

AFTERNOON SESSION

1:30 p.m.

COM. SPERRIER: The meeting will come to order please. Judge Foster, will you continue please?

JUDGE FOSTER: I want to get a correction in the record, in the testimony of Mr. Williams about the feet of oil on the drill stem test in our Fort No. 1 Well.

Q I believe you said you had 1200 feet of oil in the hole?

A Yes.

Q That should have been what?

A Approximately three thousand. The number of barrels was correct.

Q You miscalculated the number of feet of oil in the drill stem?

A Yes.

Q What size is that drill stem?

A Three and one-half inches I believe.

Q Now, as we adjourned, you had just identified Exhibit No. 4 as there and, without objection, what exhibit 4 reflects, will you tell what it is?

A Exhibit 4 is a cross section, prepared, I found the Phillips No. 2 Fort, No. 1 Lee's and No. 1 Lee and included in that section the top of Marine, the point above the Wilcox known as the Marine.

Q For what purpose was or was not this cross section prepared?

A To show the relative oil [illegible] below the Marine, and as well, the F. [illegible].

Q That is "F.-1"?

A Total depth.

Q Going over to Phillips No. 2 Fort - what is reflected on Exhibit 4 in respect to that well?

A It shows the top of the Wolfcamp and total depth of 9780' at which it was broken.

Q That is Phillips No. 2 Fort?

A Yes.

Q Are you saying that was a dry hole?

A Yes.

Q How close was that dry hole to Phillips No. 1 Fort?

A About thirteen hundred feet.

Q What direction from Fort No. 1?

A West.

Q How far West?

A Thirteen hundred feet.

Q You mean approximately thirteen hundred feet?

A Yes.

Q You got a dry hole in Wolfcamp?

A Yes.

Q You did not drill on to the Permian?

A No.

Q Why?

A Because we knew it will be low on the structure [illegible]

Q But you did drill it, didn't you to Ellenburger?

Fort, one of the wells at issue here?

A. It shows Phillips No. 1 Fort is up on the Devonian structure, up from the No. 2 Fort.

Q But it is still down structur.lly?

A Yes, from the other wells located on the cross section.

Q On Phillips No. 1 Fort, do you have any drill stem tests there?

A I do not know them on this cross section, but I did on the other ones.

Q You show Phillips No. 1 Fonzo. Where is it located with respect to Phillips No. 1 Fort as shown on the exhibit?

A It is one location east.

Q And what will this exhibit reflect with respect to No. 1 Fonzo and No. 1 Fort? That wells?

A It shows that Phillips No. 1 Fonzo is structurally about the same as Phillips No. 1 Fort.

Q But still on the down structure?

A Yes.

Q What do you mean by saying they are "down structure"?

A That they are shown to be

Q [illegible] as well [illegible] wells?

A Yes.

[illegible]

[illegible]

[illegible]

getting a good or bad well?

A If it is low on the structure, there would not be as much prospective as above water.

Q As there would likely be up on the structure?

A Yes. It is better developed on the upper structure than on the lower structure.

Q Then, you would expect from the structural position of Phillips Fort No. 1 and Fonzo No. 1 wells that they would not be as good wells as those would be further up structure?

A In general.

Q You would expect they would produce less oil than other wells?

A Other things being equal, yes.

Q In respect to this exhibit, the other two cross sections that we have been talking about, Exhibits 2 and 3, I notice you have the logs on there. How did you get them on there?

A Just glued them on.

Q Did you just photograph the ?

A Those are the electro-logs which have been photostated. Then I cut the photostated [illegible] and glued them.

Q But they are the actual reproduction of the actual logs of the wells in that connection?

A Yes.

[illegible] Phillips [illegible]

A Yes.

Q Is there any special information shown in respect to that well that you have not testified about?

A No.

Q Just that it is higher than Hercolia No. 13 Dome, is that true also?

A It is shown to be down on the flank of the Wolfcamp as you go West.

JUDGE POSTON: If it please the Commission, we would like to offer Phillips Petroleum Company Exhibit No. 4 in evidence.

COM. SPURRIER: I accept it. It will be admitted.

(Thereupon, Phillips Petroleum Company Exhibit No. 4 was admitted in evidence.)

JUDGE POSTON: We will go now to the next Exhibit, No. 5.

Q Will you please mark that cross section as Phillips Petroleum Company's Exhibit No. 5?

(Phillips Petroleum Company's Exhibit No. 5 Marked for identification.)

Q Mr. Williams, before I interrogate you about Exhibit 5, I want to return to our discussion about these reentered drill stem tests. I want this record to be clear and we will have necessary to be explained about how tables and charts are to be plotted and I want more what the value of a drill stem test is.

A I would say that that term is a misnomer. [illegible] a drill stem test is to [illegible]

In the beginning, as I said in the early days

of drilling, you do rely on these drill stem tests to give you some indication of what kind of a well you might get, do you not?

A Yes, as an indication.

Q Now, it is true, of course, that in comparing drill stem tests, that one drill stem test there has gotten less in the hole than another drill stem test would show in another well, but that does not necessarily indicate that the well that has got the least oil in the hole is the poorest well, does it?

A Not necessarily.

Q By taking the law of averages and not by using it as a rule of thumb, it does indicate that the lower drill stem test is most likely to produce the poorest paying well, is that no so?

A In general.

Q There are some exceptions?

A Yes.

Q But I mean on the over all picture generally, the lower the drill stem test in the well the less productive well you might expect to get?

A I would say the poorer the drill stem test, the worse it would look in general.

Q Tell us what is represented [illegible] Exhibit No. 5.

A Exhibit No. 5 is [illegible] of the [illegible]. It is constructed of micro-logs of [illegible] and covers the same wells that [illegible] Exhibit A.

[illegible] test [illegible]

is.

A It is an electro-log in much greater detail, designed to show the porosity of a pay zone.

Q They kind of act as a looking glass for the industry so they can look down in the ground and tell what is down there?

A It shows the porosity but does not indicate the permeability.

Q Is it the most accurate way you know of to determine the porosity?

A In the absence of cores, I would say yes.

Q It is the only recognized way of doing it?

A Yes.

Q These micro-logs are generally relied on by the industry as being accurate in respect to information that they reflect?

A Yes.

Q I mean in a practical way. I am not talking theoretically. That is what the industry puts its money on?

A It is what we complete wells from.

Q This cross section here, Exhibit 5, reflects the micro-logs of what wells?

A Phillips No. 2 [illegible] Phillips No. 1 [illegible] Phillips [illegible] Jackson and Solo-Test [illegible] Republic No. 22 [illegible] Republic 53 [illegible]. These two wells are not a matter [illegible]

[illegible]

[illegible] which is a matter to

the other cross sections showing that you are coming down going west and also to show the characteristics of the Wolfcamp pay interval is from the top of Wolfcamp to water.

Q What is the characteristic of Wolfcamp pay zone there, as reflected by that Exhibit?

A This Exhibit shows it to be lenslike. The black represents porosity. It does not represent pay. And, in between, is the impervious zone. It shows the zones of porosity regardless of fluid. The sands in that area are limestone but linticular formation.

Q What do you mean by "linticular"?

A It is just like your fingers spread out.

Q It just comes to nothing?

A Yes.

Q If a zone of sand on which you might expect you pay, what would you say about a linticular sand?

A You cannot depend upon a [illegible] character being present in an offsetting well. It might pinch out.

Q Starting from the top of Wolfcamp sand, where you have it illustrated on the exhibit, about depth would you encounter the top of that sand?

A This line represents [illegible] to the [illegible] to 9000 feet.

[illegible]

[illegible] at [illegible]

so linticular that you do not get water because of lack of porosity.

Q You have a pay zone of what thickness?

A On an oil bearing zone, from the top to the bottom.

Q What thickness? From where you first hit it to where you can get it?

A There is some porosity almost to the top of Wolfcamp and maybe 20 feet to 30 feet in depending on wells, but from the top of Wolfcamp to minus 5600, which is approximately water, the interval bears to 245 feet to about 471 feet over here and higher over there on the crest of the Wolfcamp structure. (Illustrating on map).

Q On Phillips No. 1 Fort , what is the area?

A The Phillips No. 1 Fort has about 205 feet from the top of the Wolfcamp to minus 5800, but not all of this is pay.

Q You do not mean that you have 280 feet of sand there that will produce oil?

A That is the interval in which we would be found. Beyond this depth, you would not expect it.

Q Now, that is about 205 feet?

A Yes.

Q In the Phillips No. 1 only?

A Yes.

Q [illegible]

A [illegible] about 205 feet.

Q That is from where you first strike the top of the Wolfcamp horizontally until you run out of it?

A Yes.

Q Going back to Phillips No. 1 Fort, how much effective pay sand do you have in that well?

A I think according to the micro-logs, there is twenty-nine feet indicated porosity, but I do not feel that all of that is pay because in the drill stem actually, test is five feet on top of Wolfcamp from which we got some oil on the drill stem test.

Q Did you say out of the 250 feet distance from the top of the Wolfcamp sand down to the bottom of the Wolfcamp sand in Phillips No. 1 Fort, you have only five feet on which you can expect oil?

A That five feet looks the best and below twenty-two feet of this we could not depend upon. It may yield a little oil but not much.

Q You would not expect much production?

A No.

Q So the effective pay sand does not exceed five feet, is that right?

A Yes.

Q [illegible] No. 22 [illegible]

A [illegible] No. 22 [illegible]

Q Now, in Magnolia No. 13 Pope what would you say?

A About the same.

Q How does that compare with Atlantic's No. 5 Dickson on the map?

A It has more - in the neighborhood of 2½ feet.

Q Comparatively speaking then, the micro-logs show Phillips No. 1 Fort, as compared to the Atlantic's No. 5 Dickson and the two Magnolia wells, No. 13 and #22 Pope, is relatively poor?

A Yes.

Q And you would not expect to get anything from the recovery of oil from Phillips No. 1 Fort like the two Magnolias?

A No.

Q What would you say in reference to Fonza No. 1?

A It has about 28 feet developed throughout the best part. Where we were talking about, No. 1 Fort was possibly seven feet.

Q Does that indicate to you that as you go up structure your effective pay zone increases?

A Not necessarily. In general it is true, but there are wells that have more effective pay zone.

Q [illegible] have a thicker [illegible]

A [illegible] Fonza No. 2 [illegible] 12 feet of effective pay zone.

Q [illegible] Fonza No. 2 [illegible] Magnolia's 22 Pope well [illegible] 33 feet, a difficult

speaking, would you say that Phillips No. 1 Fonzo is a poor well?

A I would say according to the micro-logs it would indicate it was not a good well.

Q You say according to micro-logs - Do you have anything else to go by?

A We do not have a drill stem test.

Q But you do have your micro-logs?

A Yes.

Q And it shows it a relatively poor well?

A As compared with other wells I mentioned, yes.

Q It shows it to be a little better well than Phillips Fort No. 1?

A Yes.

Q And you would expect more oil out of No. 1 Fonzo than you would out of No. 1 Fort. Is that right?

A Yes.

Q Now, let me ask you this question. Are there any other factors reflected on this cross-section [illegible] that you have not gone into in detail?

[illegible] not. [illegible] . [illegible]

[illegible]

Q You mean in the lower porosity zones?

A Yes.

Q You mean when you are talking about lower porosity zones, you are talking about sands?

A Yes, I am not talking about any sands. These are dolomites and limes, etc. As I already said, we tested all four through these zones.

Q That does not mean anything. You will have to tell me what zones are.

A Zones show porosity.

Q Where are they located?

A Between depths of 9618 feet and 9690 feet.

Q The drill stem tests on those zones shows what?

A Just mud. They did not give us any formation fluid. The Phillips No. 2 Hold, one location West, tested the lower porosity zones from a depth of 9620 feet to 9730 feet, part of which, having minus 580 figure for water, and recovered mud on three tests and water on the 4th test.

Q Indicating there is not any oil?

A [illegible] porosity zones and the first one was [illegible] barrels of salt water.

Q [illegible]

A [illegible]

dry and attempted five gallons of acid and it was impervious. After that we perforated 9[illegible] to 957[illegible], swabbed dry, attempted acid, and it did not take. It does not show much on the micro-logs, however. After that we perforated from 9460 - it happens to be in the [illegible] - and swabbed dry and got seven barrels of mud in eight hours.

Q Are you still talking about Phillips Fort No. 2?

A Yes. These drill stem tests and perforations on Phillips No 2 Fort here, two of them were these lower porosity zones that were encountered on No. 1 Fort.

Q What did you do on drill stem tests and further tests on Phillips No. 1 Fort?

A We just took drill stem tests and tested it down to the bone.

Q How about the [illegible] No. 3 respecting the drill stem test?

A We took two drill stem tests.

Q At what levels?

A The first was from 93[illegible] to 9[illegible], for [illegible] hours, and the recovery was seven feet of [illegible]. [illegible] took the second drill stem test at [illegible] to [illegible] hour and [illegible]

[illegible]

[illegible]

[illegible]

- [illegible] -

Q Now, let me ask you something: There is some oil that is to be recovered from Phillips No. 1 Fort and Phillips No. 1 Fonzo? There is some oil that both may access, is that not?

A Yes.

Q Unless we twin this No. 1 Fort and No. 1 Fonzo, or the Commission here permits us to complete those two wells, what is going to happen to that oil - that is, in the effective pay zones of those two wells?

A A good share of it would just stay there.

Q Where will the rest of it go?

A Some of it will be produced by other wells.

Q What surrounding wells are there?

A The Magnolia Maxwell No. 2.

Q Where is it located with respect to Fort No. 1?

A The Magnolia Maxwell is one location north.

Q The next location north from Fort No. 1?

A Yes.

Q What other wells would there be to get some of that oil?

A Magnolia's No. 4 one is diagonally northeast offset and direct north off us to the north.

Q So you would have to get some of that oil from the offsetting wells?

A Yes.

Q Any other wells?

A Just from the Fort [illegible] c. 1?

Q Yes.

A I believe that Atlantic is drilling immediately south os us.

Q That might get some of it when it gets going?

A Yes.

Q In respect to Phillips No. 1 Fonzo, there is some oil there to be recovered?

A I believe so.

Q And, if you are going to get the oil out of there, you are going to twin that or dually complete it?

A Yes.

Q Suppose we do not complete it, where is that oil going to go?

A Some of it would stay there and some of it would be produced by surrounding wells.

Q What wells surround it?

A The Magnolia No. 1 Pope to the north.

Q Just one location north?

A Yes.

Q Is that not No. 2?

A Yes, that is No. 2 Pope. [illegible] that is the low [illegible] location.

[illegible]

producing from Devonian.

Q That would get some of it?

A Yes.

Q Assuming - but I do not suppose you know about well pay out and things of that sort?

A No, I do not.

Q But, assuming for the purpose of this question that this No. 1 Fort and No. 1 Fonzo would not be what we would call a paying well, and that Phillips Petroleum Company, in discharging their duty to royalty owners would not be obliged to drill that well if it was not a paying well, the only way to get the oil out is to complete the well?

A Yes.

Q You have to get it out of a hole somewhere. You have to get it out of the hole or drill one, is that not true?

A Yes.

Q So, the net result is some of that oil in those two wells we are talking about will never be produced, is that not true?

A If it is not mined or mined, it will not be produced.

Q It will just stay there and nobody gets the benefit of it?

A Yes.

Q Mr. Williams, let me ask you one question: I may have overlooked something but am I correct in [illegible] if I have failed to ask you something here - would you tell

you as to what is reflected here by this Exhibit No. 5, that you would like to explain?

A I think we have covered most of it. The only thing that is of more interest to me than anything else is that it seems in this part of the field, and possibly throughout the field, the best prospective porosity is found in the upper part of the Wolfcamp and not further down.

Q What is the upper part of the Wolfcamp?

A I would say the upper one hundred to one hundred and fifty feet and sometimes closer to the top than that. It may be within thirty feet of the top, but within an interval of from one hundred to one-hundred and fifty feet of the upper Wolfcamp would be found the most effective pay. That is indicated by the drill stem tests and comparative methods that have been attempted in lower zones below one hundred to one hundred and fifty feet I am speaking of. The micro-logs would indicate the prospective in the upper zone is just as good - down in here.

Q Where is "down in here"?

A Well, starting about one hundred and fifty feet on down, from a point one hundred and fifty feet below the top on down.

Q The micro-logs indicate what?

A The porosity indicates it may be just as good by drill stem tests as one substantiates that. It is not the same [illegible] from the [illegible] zone.

Q If anything are they, could you expose to [illegible] on drill

stem test?

A Generally, not always. Wells are completed at 100 to 150 feet. These lower zones, below the depth of 150 feet, samples indicate the porosity is a pinpoint and not as permeable.

Q Do you know of any productive wells in Wolfcamp in what you describe as a lower zone?

A There are some completed in both zones, but the upper zone would be contributing most of the oil and although some of them are completed in the lower zones, they would be in the minority. I think the cross section would indicate porosity in the lower part, but most of the pay will come from the upper part, 100 to 150 feet.

Q I want to call your attention to something. If you cannot answer it, just say so. It is already in this record by Mr. Washburn that in the Fort No. 1, you have 22 feet of six percent porosity. What does that mean to you?

A He is counting 22 feet porosity from the micro-logs and core information on other wells. I count about 29 feet from the micro-logs alone and the fact that has six percent porosity does not mean you would have effective permeability in all of it.

Q So we have the only testimony with respect to [illegible] that you get 22 feet six percent porosity effective pay zone. Will that [illegible]

A Just the area. But it is [illegible] would be effective [illegible]. It may not be permeable. We got [illegible] the [illegible]

Q The drill stem test indicated it would not be?

A A lot of this includes this down here which we did not get anything on.

Q That is being liberal on it?

A Yes, I would say so.

Q Not that there is anything wrong in being liberal, but I just wanted to make it clear. I believe that is all.

COM. SPURRIER: Does anyone have any question?

CROSS EXAMINATION

BY MR. NICHOLS:

Q Judge Foster, I would like to ask your witness a question: Mr. Williams, in the micro-logs that you have made a cross section East and West, did you look at micro-logs North and South to make a comparison there?

A No, I have not made a cross section of it.

Q Why not?

A Because I did not have time.

Q Would it paint a better picture?

A Going south, some of the wells are better. The Atlantic No. 4 Ted Jones which is situated in the NW/4 of the NE/4 of Section 31, Township 15, Range 3W, the micro-log is twelve zeros 42 feet.

Q How about the North - or Maxwell No. 2?

A To the north, on Maxwell No. 2, [illegible] to be twelve feet.

Q How about Pope No. 2 on the north of Fonzo No. 1?

A I count 28 feet throughout the log that had been run but six feet at the top, but I had figured in the more prospective pay zone.

Q The comparison is almost identical to Fonzo No. 1?

A Yes.

Q How about to the South of Fonzo #1?

A Five feet on the low 3 W Dickenson. The twin is -

JUDGE FOSTER: While he is looking for this, I will submit Phillips Petroleum Exhibit No. 5 in evidence.

COM. SPURRIER: So long as there is no objection, it will be admitted.

(Thereupon, Phillips Petroleum Company's Exhibit No. 5 is received in evidence.)

Q (By Mr. Madole) In other words, the wells to the north and south, the Fort and Fonzo No. 1, according to the micro-logs, they are almost identical to the logs you found on Fort No. 1 and Fonzo No. 1.

A Immediately north and south of us.

Q Are you familiar with the accumulative recovery of those wells?

A No, I am not.

Q Mr. [illegible] of the Commission, I have asked Mr. [illegible] to get off and figures from the Commission's record on the [illegible] of all the wells in the Fonzo in the [illegible] field. We have endeavored to procure his figures. We

would like to request permission that they be placed in the record.

COMMISSIONER: The accumulative figures on the production of the various wells in the Wolfcamp formation in the Denton field is requested from the records of the Commission. Is there any objection?

(No objection voiced.)

Q (By Mr. Nadole): I ask first on this five feet of pay that you find in Fort No. 1, what is your estimated recovery in barrels of oil?

A I do not have that.

Q Have you any opinion as to how much is recovered?

A No. Mr. Washburn would have to answer that.

Q Your opinion as to the footage of pay, etc. is based on micro-logs and comparison of drill stem tests - is that correct?

A Yes.

Q You have not taken into consideration the actual production in offset wells?

A I have taken into account the fact that surrounding wells, most of them, are producing only from their upper zone.

Well would be in the [illegible] gas and oil that could be produced from Fort No. 1 or Zone No. 1?

A I do not know how it could [illegible] to say how much [illegible].

[illegible]

the time they have been in?

A We did know we did produce that much, but how would we know how long that would produce that?

Q It is as good an indication as drill stem tests, is it not?

A Yes.

Q Is it not a fact that drill stem tests at best are indications of mud conditions in the hole and everything else will affect that test?

A It is an indication.

Q But the mud indication of the well will affect recovery on the drill stem tests?

A Yes.

Q Then what that well will give up is best determined by the actual oil that comes out of the hole?

A Yes.

JUDGE FOSTER: I object - the question is argumentive!

MR. WOOLL: It behooves Foster to raise an objection - and he has been arguing his own case all through this case.

JUDGE FOSTER: I want to show it is argumentive.

Q (By Mr. Woolley): If Powell No. 2, in six months' period, has produced 27,537 barrels of oil, would that not be a pretty good indication that Powell No. 1, which is directly on top, will produce oil?

A Yes.

Q And in approximately the same amounts?

A I would not say that.

Q You found the micro-log had pay footage accrual?

A Just about.

Q What factors are you going to subtract from recovery in No. 1?

A By the same line of reasoning, you cannot use a drill stem test to tell what a well can produce, I do not see how you can use production from one well to say that that the offset well will produce the same.

Q It is a pretty good indication, is it not?

A Yes.

Q In general or specific detail?

A In general.

Q Now you said on those micro-logs, or cross sections, that all of the wells indicate that production is from the first 150 feet?

A I said in general.

Q What do you mean by "in general"

A Because there are [illegible] wells [illegible] the zone may vary and does have [illegible]

Q I'm talking about [illegible]. [illegible] the lower zone?

A [illegible]

Q [illegible]

A I believe Atlantic's #3 Ted Jones is run on cross section B-B Prime which would be Exhibit 3, is completed in both zones.

Q I am talking about those pictured on Exhibit No. 5. That is the one I am talking about.

A Four of those are Devonian wells and this one and this one (illustrating on map) are Wolfcamp ones which are completed in the upper zone.

Q Then, in your Fort No. 1 and Ponzo No. 1 you had 150 feet of Wolfcamp formation.

A You mean above water?

Q Yes

A We had more than that.

Q Then your Fort No. 1 and Ponzo No. 1 have in them the same pay formation that is being produced toward the East, is that not so?

A Yes.

Q Now, if the Commission decides not to complete and if you decide to twin these wells, where can you locate Ponzo No. 1 Twin on Ponzo No. 1?

A We would not twin them.

Q Is it not true that if you move the Fort No. 1 to 330 feet from the West line and 330 feet from the North line of the acreage dedicated as Exhibit 1, you will be in the same [illegible] or the same structural level as Marathon's Farrell No. 2?

A You say 330 feet from the North and East?

Q Yes.

A Yes, it would.

Q Then, under the rules of the Commission at this time you are permitted to so locate such a well, are you not?

A I believe that is right.

JUDGE POFF: I do not know whether it is or not.

Q (By Mr. Madole) Will you mark on Exhibit with an "X" where that would be on your contour line?

A Yes.

(Thereupon he marks Exhibit #5 with an "X")

Q Let us go on the Fonzo - On that same contour map, and go 330 feet to the North and East line of Fonzo, which you have marked with an "X", and tell me whether or not it would be on a structure comparable to Amerada's Fonzo No.8?

A It would be just a little higher.

Q Now in the twinning of a well, your location of that twin well would not be identical with the Devonian location?

A No.

Q Then if there [illegible], there is a

[illegible]

[illegible]

[illegible]

[illegible]

A But I said in general the porosity -

Q In general?

JUDGE FOSTER: He has answered the question.

A It is hard to get specific because porosity does not change that much in relation to structure. This Atlantic well in the southeast of Section 34 is low on structure but it has high porosity, indicating it is quite erratic.

Q Did I understand your testimony correctly that, in general, as you move up structure you found more porosity?

A That is why I said "generally". There are exceptions to this.

Q What you are telling this Commission is, until you drill a hole that you do not find in Fort No. 1 or Fonzo No. 1, is that right?

A I did not say that. You can tell something by Devonian wells that have already been drilled.

Q You get general when it is necessary and you get specific when it is not necessary. I want you to stay on one side of the fence or the other. If, in general, going up structure you are going to get more permeability?

A [illegible]

[illegible]

A I was not speaking in regard to Fort Wells. On the crest of [illegible] in general - now I did, in regard to [illegible] you what

the porosity would be since the porosity on the immediate offsets are similar, which we already discussed.

Q Then if those wells would pay out, your wells should pay out?

A Yes, I think they would.

Q That is all.

REDIRECT EXAMINATION

By Mr. Foster:

Q Did I ask you the extent of the pay zone was that you found in Fonzo No. 1?

A Seven feet.

Q That is all.

MR. L. C. WHITE: Mr. Williams, how conclusive is a drill stem test?

A I think you can say if you get a flowing test, it is a good indication. It does not mean anything about what that well will produce. It is just an indication of the production of the fluid in the drill stem test interval. I do not think it can be taken as any kind of a measurement.

MR. [illegible]: I [illegible] and I would like [illegible].

[illegible]

BY MR. [illegible]:

Q Mr. [illegible], I [illegible] Exhibit 5, micro-log cross section. This exhibit [illegible] so-called creek. I was

had this Exhibit protrude out to the right, it would show the crest dipping down as you go over to the right, would it not?

A My map indicates no completed wells over there unless the completion is very recent and, east of 13, there is the 21. Is that completed? My map does not show it completed. East of that well is Sinclair, which is still being drilled.

Q Looking on the structure indicated by Exhibit I, other wells have been producing on the other side of the crest, in the southeast or easterly direction. Is that not true?

A Yes.

Q Mr. Williams, I believe your testimony was with respect to Exhibit 3, and which Judge Foster this afternoon had you correct your original testimony of this morning, in respect to drill stem test calculations you made on your well?

JUDGE FOSTER: I did not have him correct it! He called my attention to it and wished to have that corrected himself.

Q Well, in which you attempted to correct your testimony this morning, there being an error in your calculations as indicated on your Exhibit No. 3. It is your testimony now that your estimate there would be a 3,000 fill up on drill stem test?

A Approximately.

Q And your testimony still remains in regard to Shanklin's well - 1,900 fill up on a drill stem test - that still remains?

A Yes.

[illegible]

and 3000 or more on the Phillips well, could you answer Judge Foster as to which is the better well?

A I would say the one at 3000.

Q You would prefer your well to the Atlantic well?

A Yes.

Q And, in that respect, you are correcting Judge Foster's question in which you gave an answer just opposite to this morning's answer?

A Judge Foster did not have the correct information.

Q And now you wish your testimony to be changed, that you prefer the Phillips well?

A Yes.

COM. SPURRIER: Does anyone else have a question of this witness? If not, the witness may be excused.

(Witness excused.)

COM. SPURRIER: We will take a short recess.

(Thereupon, at 3:10 p.m. a ten minute recess was taken.)

COM. SPURRIER: We will reconvene now. Judge Foster, did you have another witness?

[illegible]

[illegible]

BY JUDGE FOSTER:

[illegible]

A E. N. Washburn.

Q You are the same Mr. Washburn who testified before in this case, are you not?

A Yes.

Q Mr. Washburn, how many barrels of oil at present prices will it take to pay out a Oilcamp well?

MR. SULLIVAN: We wish to object to this question on the ground that the matter has been gone into in the original hearing on July 10th here.

JUDGE FOSTER: I understand it would take 110,000 barrels to pay out. I wish to get the correct understanding about it. I think it is a fair question.

COM. SPONAUGLE: Let us get some new testimony.

JUDGE FOSTER: May I, for the purpose of the record, state what the answer would be? It is very important if there should ever be a Court contest. They try it on the record and you can rule on the advisability or in advisabili.. of the evidence, but I think it is important [illegible] permitted to answer.

COM. SPONAUGLE: If it is new testimony, we will hear it, but, if it is [illegible], we see no reason to go over it again.

[illegible]

JUDGE FOSTER: It is not my intention to do so.

COM. SPURRIER: If it is not in the record, put it in. What is your answer?

A 116,000 barrels of gross oil.

Q What do you mean by gross oil?

A Total oil.

Q Have you made any computation of the number of dual oil completed wells that Phillips Petroleum Company has operating today?

MR. SELIGER: I also wish to renew my objection, because he went into this at the last hearing.

COM. SPURRIER: Have you answered that before?

A I have similar data that is of a later date.

JUDGE FOSTER: It is a little different testimony.

MR. WHITE: I might state this to the Commission, that under this petition for rehearing, in my mind, I question the materiality of all the evidence introduced this morning and afternoon in this hearing. The grounds for rehearing are: 1. That Order 351 entered here was for further evidence. 2. As to the date of the Order. 3. That the Commission, in issuing said Order, acted unreasonably, arbitrarily and capriciously. I think the evidence should be set forth on the grounds set forth in the petition and not go over the whole case!

MR. [illegible]: Put in the [illegible]. He is entirely [illegible] information of [illegible] and [illegible] all of this [illegible] and say his objection is [illegible]

of the last hearing.

JUDGE [illegible]: That while he testified as to the number of these wells, there is nothing in this record to show that Phillips has had ten years' experience in dually completing oil wells, and there is nothing in this record now to show that the depth, the range of the depth to which these dually completed wells have been completed by Phillips Petroleum Company and, if we are permitted to do so, we will show that we started in 1943 and, up to the present time, that we have dually completed seventy oil wells and that insofar as these seventy oil wells are concerned that no mechanical failure of the packers in those wells have ever resulted in any injury to the reservoir in which we have completed these wells. I think that is important in this case. There has been much said here and much objection about packer failures. We do not say that packers do not fail. Any mechanical device will fail at times as far as that is concerned, but I think it has very much probative value to show over ten years' experience by Phillips Petroleum Company that we have dually completed these seventy oil wells in widely varying areas from depths less than involved here to depths greater than involved here and that there has been very few failures in those wells and the few failures that have occurred, have not resulted in any injury to these reservoirs.

[illegible]: If that is your contention, what is it that [illegible] be required with packers for [illegible] - your statement that [illegible] unnecessary, arbitrary and capricious. That

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testimony do you have to show that the order was unreasonable, arbitrary and capricious?

JUDGE FOSTER: I call your attention to Paragraph F under No. 3 of the Petition which reads that the Order will require the drilling of several wells. That will mean a terrific loss and that is the purpose of this testimony, to show that the excess number of wells would be required under the order.

MR. WHITE: That is your ground for claiming that the Order is unreasonable, arbitrary and capricious?

JUDGE FOSTER: That is correct.

MR. WHITE: The Order would have to be based on what was introduced at the last hearing.

JUDGE FOSTER: We asked for a rehearing and it seemed to me we should have one.

MR. WHITE: The whole testimony is out of the scope of the petition.

MR. WADDLE: All of the testimony outlined by Judge Foster was available at the previous hearing - all of this testimony given this morning and so far this afternoon, was available. There was no Motion for continuance to present additional testimony. The Motion as I understand it, and it was apparently created to show they have newly discovered evidence that was developed since the last hearing. This here is simply a rehash and simply an accumulation of testimony that could have been had at the previous hearing. If they had presented [illegible]

Petition at the first hearing and I do not understand that a Motion is granted for rehearing for them to bolster their own inadequacies. If they have some new evidence developed since the previous hearing, certainly the Commission is within its jurisdiction to permit that evidence to come in, but not simply to retry the evidence of the previous hearing. I do not think that is the function of this Motion for rehearing.

JASON KELLAHIN: I would call your attention to Paragraph D of the petition which alleges that the equipment proposed to be used will provide adequate protection to the horizon which is clearly shown, and also will protect all correlative rights, and I do think we can present such testimony at this time.

MR. NADOLE: They presented their Otis pressure group and we had a demonstration of the effectiveness of packers and crossover nipples, etc., but Paragraph D wholly refers to prior testimony.

COM. SPURRIER: If you have new testimony, let us hear it.

JUDGE COSTA: Do you consider this testimony new?

COM. SPURRIER: If it is not in the previous record, it is new.

JUDGE COSTA: I understood the offering here is new testimony.

COM. SPURRIER: Proceed, [illegible].

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Q (By Judge Foster) I have here a tabulation showing dually completed oil wells that Phillips Petroleum Company has as of July 1st, 1953 giving the pool, lease, well number - in the lower zone its name and depth perforated and, in the upper zone, its name, the depth of perforation, and the date it was dually completed. Will you hand that to the reporter please so that she can mark it Phillips Petroleum Company's Exhibit No.6.

(Phillips Petroleum Company Exhibit No. 6 marked for identification.)

MR. MANDLE: We object to that!

MR. SELINGER: They were here on July 16th and all this testimony was available.

A (By Mr. Washburn) It is dated July 1st in the field but it is not received in Bartlesville office until September.

Q (MR. MANDLE:) You could have accumulated it at the time of the last hearing, could you not?

A Yes.

MR. SPURLOCK: Proceed.

MR. MANDLE: May we have a ruling as to where we stand on this record?

MR. [illegible]: Your objection is overruled. Proceed, Jurge, not sending your testimony in on behalf.

MR. [illegible]: I will try to do that. You will have to decide whether it is new or not. It seems to me like to have to decide that question.

(By Judge Foster) Mr. Washburn, regarding your objection to exhibit 6, between what dates was it possible to dually

completed oil wells?

A For the upper ones about 4400 down to a depth of 12,500.

Q Now, between what dates were those wells completed?

A From April of 1943 to August of 1953.

Q Now, to whatever extent you may have had any power failure in those wells, do you know of any power failure resulting in any damage to the reservoir?

A No, sir.

JUDGE POSTER: That is all.

CROSS EXAMINATION

BY MR. SELINGER:

Q Mr. Chairman, we objected to this witness' testimony entirely and also to the introduction of this Exhibit. However, we wish to ask Mr. Dashburn, in this Denton field, what is the difference in depth between the Devonian production and the Wolfcamp production? How much of an interval?

A I would guess about three thousand feet.

Q Can you show this Commission where in your wells of dual completion there is an interval of three thousand feet in dually completed oil wells?

A I cannot.

Q What is the maximum interval in dual oil completion on your Exhibit?

A [illegible]

Q Now, in regard to [illegible]

packer failures - the type of packer you run on your turbine?

A Yes.

Q Do you recall at the July 16th hearing I asked whether there had been any production packer failures and whether there had been any dual oil well packer failures?

A I do not know about the question of production packer failures, but I do remember your asking if we had a dual-dual packer failure.

Q How do you know a packer failure in a dual-dual oil completion?

A There are several ways you might identify it. You might catch it from a change in flowing of the two zones or change in capacity in stock tank return or in the gas oil ratio.

Q It is a matter of policing which is the realm of the operator, is that not correct?

A It is.

CROSS EXAMINATION.

BY MR. POOLE:

Q Mr. [illegible], you ran in those seventy wells, you have never had any packer failure?

A No, I did not say that.

Q Did you not? What was the significance of your [illegible]?

A This is a list of Phillips-built completed wells.

Q You have had packer failures in how many wells?

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A I know of no instance in this bunch.

Q Have you investigated your records and checked on these wells in particular to see if they have had some packer failures or are you just relying on your general knowledge?

A I have not individually investigated them.

Q You do not know there have not been packer leaks?

A They have not been reported.

Q This information was not available at Bartlesville at the time of your previous testimony, is that right?

A Yes, sir.

Q Then the record of packer failures is not available to you at Bartlesville, is it?

A During my time in Bartlesville I have never known of any letter or correspondence or Report 903, in which a packer had failed.

Q But, to find out if there have been packer failures on these seventy wells, you would have to go to the district in which one was located?

A Yes.

Q And you have not done that, have you?

A No.

[illegible]: That is all.

[illegible]

BY [illegible]:

Q In this list of [illegible] wells, [illegible] Phillips operators, how many have five per cent [illegible]?

A I can only answer that for the part that covers West Texas. I have never worked in the Oklahoma Area. On all of the Allenburger wells we use five and one-half inch casing. Goldsmith's are five inch to the best of my knowledge, but those shown in West Texas are five and one-half inch casings.

REDIRECT EXAMINATION

BY JUDGE FOSTER:

Q If you had a packer failure, would a report be made up?

A Yes.

Q Where does that report go?

A Through all channels and Bartlesville.

Q And that would have been available to you, would it not?

A Yes.

Q And, in compiling your records, you did not find any reports of a packer failure?

A No, sir.

RECROSS EXAMINATION

BY MR. MADOLE:

Q Let us go back now. You stated at the previous hearing that you did not have available this information. Now, is that record made on dually completed wells to Bartlesville?

A Yes, on individual wells it goes to Bartlesville.

Q And that is on packer failures?

A Yes, because that would [illegible] reconditioning.

Q But it was not at Bartlesville at the time of the last hearing?

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A I gave the date before in the previous hearing - that it was made January 1st. We get a report semi-annually. This is the July report which got into Bartlesville after the last hearing.

Q Are you telling this Commission that every packer failure is reported and would be there at Bartlesville?

A Yes.

Q Then your testimony a minute ago - to find out about packer failures you would have to go to a District - is not correct?

A I was in error. They do come to Bartlesville.

Q To avoid a rehash, we would like to state to the Commission - he threw in this figure of 116,000 barrels, his previous testimony in the record - and we do not agree with that figure. There is testimony as to the payout on these wells in detail in the previous hearing, but we do not want, in any way, to be bound by this 116,000 figure, especially in view of the fact that it does not coincide at all with his testimony at the previous hearing. Are you going to accept that over our objection? If you are, then we want to break down that 116,000 figure.

[illegible]: I would like to have you break that down. Do you have a called hour on that 116,000 figure?

(,): [illegible] outline it:

A I used oil at 2.3. I took 1/24th of that to start [illegible], using a value of 2.[illegible]. [illegible] were the ones I broke down.

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Q (Mr. SELINGER): You mean gross production tax? Is that cents or percent?

A That makes $2.476 oil worth $2.316. I assume a sixty cents per barrel lifting cost, which ends up with an oil, before income tax of $1.716 per gross barrel .

Q (Mr. Madole): Not after income tax?

A These wells will not pay out. There is not any income tax on depletion allowance.

Q You have $1.71 per barrel. What figure do you use for recovery?

A I valued the Polfemo well at $200,000 and divided $200,000 by $1.716 and I got 116,000 barrels by slide rule. In my previous testimony I had considered income tax in that, which was why the value of my oil was less.

Q Then you say your Fonzo would not pay out?

A Yes, sir.

Q Are you changing your testimony as to ultimate recovery from Fonzo?

A I estimate Fonzo will produce 137,000 barrels.

Q You used 120,000 barrels on the price of oil at $1.2.

A I was in error but, still, I would have to say [illegible].

Q You have income tax effect barrels in the recovery? You say oil [illegible] 120,000 barrels of oil was going to be used from your lease.

A [illegible]

Q I am asking about -

JUDGE PARKS: He is not denying what he has said. He is saying that he will get 107,800 barrels from Fonzo.

Q (MR. MADDOLS:) Let me read from Page 5 of the transcript of the previous hearing: "Q What would the estimated total recovery from the Fonzo No. 1 well? " "A I would estimate the Fonzo would have approximately 3000 barrels per acre, or about 120,000 barrels on a 40-acre unit." Now you say 116,000 barrels will be your pay out. If you took 116,000 or 120,000, then Fonzo #1 will pay out?

A On those figures it would pay out - yes, sir.

MR. MADDOLS: That is all I have to ask.

MR. WASHBURN: I cannot get but thirty-five feet of porosity.

MR. MADDOLS: Let me read again from the transcript: "How thick is the Wolfcamp pay sand in the Fonzo and the Denton Nos. 12 and 13 wells?" "A I don't have a micro-log of those wells. We estimate the footage in the Fonzo is about 35 feet of productive porosity, and that the two Denton wells will have probably fifty feet of productive porosity." That is that you testified previously.

Mr. WASHBURN: I probably had an error in my calculation. You take 35[illegible] and then take 6[illegible] in all our wells and multiply that and you will get [illegible] 107,800 barrels [illegible].

JUDGE PARKS: Don't argue! Calculate it!

[illegible]: There was [illegible] to be on a [illegible] basis!

Q (By Mr. Madole) Will you give us a breakdown of this $200,000 cost of your well?

A I base that on cost of wells we have drilled.

Q Let us just get figures. How many tangibles and how many intangibles and how much did you charge to each?

A I did not break it down that way. I went to the Accounting Department and got the actual cost of drilling six Wolfcamp wells.

Q What was the footage cost?

A I do not have that. I used the over all gross cost of drilling the well - the price it cost us. I have those cost estimates here.

Mr. MADOLE: We got in that circle last time - estimates of actual cost.

MR. WASHBURN: I have actual costs.

MR. MADOLE: Let us have the actual costs.

MR. WASHBURN: Denton 4 - this was the first well drilled. I will give them in order here. Denton 4 cost $190,373.55. Denton 5 cost $168,644.33; Denton 8 cost $185,[illegible]3; Denton 10 cost $176,359.95; Denton 11 cost $196,329.57; Denton 12 cost $213,616.24. The average was $138,030.01. The last two wells is what I used for my basis, because the location [illegible] and we anticipate more trouble of completing the well.

Q (By Mr. Madole) You said you use the six wells to calculate the $200,000?

A [illegible] I think we got into this argument before.

Q This $200,000 is your estimate and it is not the average of the six wells.

A It is approximately the average of the last two wells drilled.

Q Do you have the breakdown of the last two as to how much additional work was required in those wells in the way of mechanical difficulty?

A It was mostly perforating and swabbing at this west edge and it takes more time to get a well in.

Q Your tangibles remain constant?

A Yes.

Q Your intangibles?

A At least 90% of increase is due to intangibles.

Q What do you estimate of the $200,000 is intangibles?

A About $160,000.00

Q You would get credit on your income tax for that approximately if your income was in the 50% bracket, you would get credit for $80,000.00.

A If you want to drill a well that would not return your money you could. However, that is not a good way to operate.

Q That is the $64.00 question in this. We do not agree with your figures, but, if you suffered this catastrophe, you could get about $80,000 credit on your income tax.

A You could get to charge off all your intangibles the first year.

COL. SELINGER: If no further question, the witness may be excused.

JUDGE FOSTER: I have not quite closed the case yet. Mr. Selinger had a witness he wanted to put on. I want to take up one other matter here to which I would like to call the Commission's attention. In Order R 351 A, which is the Order of the Commission granting this rehearing and not the Order R 350 A, which is the Order granting the rehearing on another well. In each one of those Orders I called the Commission's attention to the fact that it says that Order R 350 was heretofore entered as of August 28th, 1953 and, in Order R 351 it says it was heretofore entered on August 28th, 1953. Now, it would indicate on the face of the Order that our application for rehearing was filed too late. That being purely a jurisdictional matter, I would like to get the matter straight and, for the purposes of this record, I want to say that on July 31st, 1953, Mr. Macey sent a telegram to Mr. Colley at Bartlesville saying our apolication to dually complete all four wells involved in the original hearing had been denied by the Commission and then, on September 8th, Mr. Macey wrote me a letter which I received on September 10th saying: "We enclose two signed copies each of orders issued in Cases 556, 557, 558 and 559 in which your company participated at the July 16 hearing. Inasmuch as these orders were issued August 28, 1953 and you are not receiving this until this time, you will have until [illegible] to file [illegible]." So, I would like to have that letter in the record as well as the telegram

I mentioned that is in the file here in this case, sent by Mr. Macey. I am not criticizing anybody. I appreciate the notice given in the matter. I would also like to put into the record the duplicate signed originally by the Commission of Order R 350 and R 351, if I may do so. Now, the rest of the matter on the question which I have presented here will be handled by Mr. Kellahin, if the Commission please.

MR. WHITE: I might state that it is well for him to state on the record what he did, in view of the fact it recides in Order R 351 as to the date of the request being placed. In view of the fact that that date does not coincide with the filing of the order in the Commission's records, which was on or about the eighth of September, let the record show the order R 350 and 351 were entered of record on September 8th.

JUDGE FOSTER: I assume that is what happened and regardless of the date it is signed or allowed, it is effective as of the entry which is appearing as of September 8th. On the face of the order it shows the filing date, but that brings him well within thirty days. The date it was filed in Supreme Court was September 10th. If that stands as a fact, that is all right.

MR. WHITE: That will not really reflect on the order itself.

JUDGE FOSTER: We have simply ways from which the order was entered on which to file our notice of appeal. In view of Mr. White's statement, it is the statement of the Commission as to

the time the record reflects that the order was in and, if that is true, we have no further testimony to offer, if the Commission please.

COM. SPURRIER: The record is available, Judge, and Mr. White got his date from the record.

JUDGE FOSTER: If that is the record, that is it. I am satisfied. Mr. Kellahin was going to give testimony on it, but Mr. White has given that information.

MR. SELINGER: We now wish to renew our objection to the testimony given by the applicant as being all a part of the previous record of July 16th and we would like to have a ruling now on it - as to whether the Commission considers this new testimony or not.

COM. SPURRIER: Proceed with your witness, Mr. Selinger.

MR. WHITE: We are withholding our decision.

MR. SELINGER: Mr. Cooper, will you please take the stand?

J. B. COOPER

having been first duly sworn testified as follows:

DIRECT EXAMINATION

By Mr. Selinger:

Q Will you please state your name?

A J. B. Cooper

Q With what Company are you associated?

A Shelly Oil Company.

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Q In what capacity?

A Petroleum Engineer.

Q Mr. Cooper, you were here on July 16th covering this same application?

A Yes.

Q Does Skelly Oil Company have any Wolfcamp wells in the Denton field?

A We have six.

Q Have they all been drilled and completed?

A Yes.

Q And all producing?

A Yes.

Mr. SELINGER: Will you please mark this as Skelly Exhibit No. 1 please?

(Skelly Exhibit No. 1 marked for identification.)

Q I hand you what has been identified as Skelly Exhibit No. 1. Does that reflect the extent of Skelly Oil Company's operations in Denton field in a sort of report?

A Yes, as far as Wolfcamp is concerned, yes.

Q When was the first oil well started?

A February of 1952.

Q And the last well completed?

A April of 1953. There are a total of six wells.

Q Now, what is the average [illegible] investment or cost of drilling a Wolfcamp well by the Skelly Oil Company?

A The average cost was $147,476.

Q What was the payout time per well?

A Per well was about 12.7 months.

Q I will ask you whether or not at this time Skelly Oil Company wells in the Wolfcamp in the Denton Field are paid out.

A I cannot answer that directly, but based on a projection on the rate they would pay out as of June 30th, they should have paid out by October 1st.

Q And the reason you cannot get definite information is the fact that all the bills are not all in and debited yet?

A The bills, runs, and everything has not hit the books.

Q But, from February, 1952 to April of 1953 and down to July 1st, you have had the benefit of six wells' production?

A They were completed at various times and we have had their benefit. All six wells have not been producing for that period of time, however.

Q Mr. Cooper, would you say the cost of drilling a Wolfcamp well, as far as the Skelly Oil Company is concerned, is an average of $167,000 plus?

A Yes.

Mr. Seligson: That is all.

Mr. Woodruff: Any further questions of the witness?

(No further questions were propounded)

Mr. Williams: If not, the witness may be excused.

Mr. Woodruff: We understand the original record is part

of the case and also there will be included in the record as Magnolia's Exhibit No. 1, the accumulative runs from each of the wells in the Wolfcamp in the Benton field. Is that correct, sir?

COM. SPURRIER: Mr. Selinger's objection was overruled. You are asking if this evidence that is presented is accepted as new?

MR. MADOLE: I am just asking if the original record in the July hearing will be considered with this testimony and that we will be allowed to supply the accumulative production on the Wolfcamp wells as reflected from the records of this Commission which Mr. Macey is going to check and supply as our Exhibit No. 1.

COM. SPURRIER: Do you have anything else, Judge?

JUDGE FOSTER: I have a few remarks. I want to point out one or two things. Sooner or later it seems to me that this Commission must reach the point where it is willing to grant applications for dual completion of oil wells. I do not know whether you have got to that point in your thinking or not but, in any event, it is just the march of time. Everybody else is doing it. It is being done fairly successfully according to this record. Now I know that you will find packer failures. You will find them in oil wells that are dually completed - oil and gas wells. You find failures in anything that is mechanical but that is no reason for not permitting us to complete these wells. Now, airplanes fall out of the sky due to mechanical defects. Railroad signals fail causing

wrecks and the wrecks causing deaths. There are mechanical defects on automobiles, but, because of these mechanical failures, nobody would argue that you should stop flying, going on railroads or automobiles and it is just as logical to say that because there may be a mechanical failure in one of these packers, that you should not grant a dual completion of an oil well. It is in the record, if the Commission please, of the Phillips Petroleum Company's experience and that is all the experience we have had over ten years of dually completed wells - oil wells - not oil and gas, but dually completed oil wells, that we have not had any report of packer failures in those well and we do not know of any reported packer failure in any wells that have caused any damage to the reservoir due to contamination in the two zones. It is all right to say that can happen but I am sure if there had been such instances that the opposition here, as strong as it is, would have dug it up and presented it to this Commission. They did not. They are simply content to argue that it could happen.

On the economic side of this picture, I do not know what kind of an operator Skelly is, but I know what a poor operator we are according to his figures, but it is in the record that any [illegible] would go into this, would dual [illegible] wells. I [illegible] Commission would be amply justified in finding that it [illegible] to do that when [illegible] wells. It [illegible] what you have got before you to [illegible]. If [illegible] oil out of the ground, out of the [illegible]

formation, if it is not feasible, then it is only to get it out of the hole we have already got - the hole in the Devonian. If the Commission does not do that, then this record is clear and not denied that the productive oil that is in the Wolfcamp zone in these two wells will be produced by these offset operators - a large portion of it will. Some of it will not. That will be a loss for the people of the State of New Mexico. It will just stay there. We just ought to be practical and hardheaded about this thing. It would seem to me to protect the interest of our royalty owners, you should permit us to dually complete these wells and produce this oil that we can produce through a dually completed well and pay that royalty to the royalty owners and I believe that we have a legal obligation to the royalty owners, and, if it is not legal, it is certainly moral. We are trying to protect everybody's interest. What have the opposition here to lose? Just briefly, how can Skelly get hurt if this Commission grants this dual completion? What has Pan American to lose? What has Schell to lose? What has Amerada to lose? It is no skin off their nose and why they are here fighting it is something I do not understand. Now the fact that they have drilled wells in the same formation of the same characteristics, etc. does not prove that every well should be drilled. Now, why is it that reasonable objects to this? The reservoir is not going to be injured. They will get as many barrels of oil as they would ever get if you permitted us to drill these wells but, they will get a lot more, if you don't.

These things get pretty plain to me just what the issue is and you just deny us the right to dual these wells and get that productive oil under our land there and deny us the right to dual and that productive oil will go to these other operators in this field and that is not something you can just laugh off. I think we have shown this Commission, in good faith, the way we see it, that we cannot twin these wells and pay them out. There is a serious question about it. Sooner or later in New Mexico you are going to be dually completing these oil wells. I know there is some objection to dually completing wells, and I do not say you should establish a policy of dually completing wells, but it is only after you have found the facts and I think when the Commission sits down conscientiously and digests these facts, you would be amply justified to let us complete these two wells. We have done all we can to remove any question of doubt you have in your minds. If anybody has failed, perhaps it is me. There may be some argument about these figures, as to what it takes to pay out a well. Mr. Washburn told us when he used thirty-five feet and six cents that he was wrong and you will get 115,000 barrels of oil and that, multiplied out, gives you so many thousand dollars.

I respectfully ask this Commission to give favorable consideration to our request and grant us permission to dually complete these two wells.

MR. [illegible]: I am less fearful concerning a possible re-

Magnolia. I am not planning to make any lengthy statement, but Judge Foster is implying here that we are coming here with an evil intent to steal his oil. We are here to oppose the dual completion on the ground that it embodies risk to the reservoir. He says there is no direct evidence in this record of packer failure. Either he is not reading his mail right or I am not because -

JUDGE FOSTER: I did not mean to say there is no record of packer failure.

MR. MIDDLE: We brought our engineer from Texas and proved to our satisfaction that we had suffered twelve packer failures over there in a field - a total of twelve failures, of which he attributed nine to packer failure. He further testified that he found evidence of injury to the reservoir. That is not conjecture. Now, Mr. Foster refers to planes and railroads and automobiles. You have rules and regulations of running those automobiles. If you are a safe driver you stay on the right side of the road. All we suggest is that they stay on the right side of the road and put another hole down in that field and they will experience no difficulty or injury to the reservoir. We says we suffer no injury. If there is injury to the reservoir, and we are directly offsetting those wells, we could be affected and if there was communication in the Wall or Penn, it could adversely affect our wells. Now, we are [illegible] to come in and oppose his application so that we can shut his

oil. That is not true. We suspect that Judge Foster is using this Commission to wash a little dirty linen of his own - his royalty owners demands for drilling. If we are going to get into personalities and what is behind this, I think a full disclosure would reveal that they have had a demand for drilling these two Wolfcamp wells and that is the purpose of this hearing to avoid and try to tie down a possible lawsuit action in the Courts of New Mexico.

COM.SPURRIER: Do you wish to speak?

J. H. VICKERY: My name is J. H. Vickery and I represent the Atlantic Refining Company. Atlantic Refining Company has approximately twenty percent of Denton field and we have no objection to the application of Phillips Petroleum Company to dully complete their Fort No. 1 and Fonzo No. 1. Atlantic has found that dual oil completions have been feasible in other areas where the Company operates and I would like to go on record to favor dual oil completions in the State of New Mexico.

GEORGE A. SELINGER: If the Commission please, Shelly Oil Company wishes to renew its objection to Phillips Petroleum Company's application. The record of the previous hearing, has been a part of this rehearing, and the reason we are objecting is not because we are going to get Phillips' oil, but we feel there is that danger of drainage also, and possibly in areas where we have no wells. Also we object as it was been brought out previously the cables in this area is Wolfcamp

and Devonian. I also want to point out that the matter of policing is a difficult one. It rests entirely with the operator, and we think that is a very important consideration of this Commission - this policing. Outside of bottom hole tests and gas returns, there is no way that the State or offset operator can be advised of such contamination if it exists and that is our sole interest in opposing Phillips - the danger of contamination. If they wish to contaminate their property, that is their business, but, when it comes to a common reservoir, where we might get injured, that is our objection. We wish to particularly call this Commission's attention to it here. We have also indicated that their equipment was unproven at great depths where there is also a mixing interval in respect to five and one-half inch casing. I think all those things should be thought of by the Commission in regard to the State as a whole and particularly to the Penton pool.

D. T. NESTOR: My name is D. T. Nestor and I represent Shell Oil Company. As explained before, even though we are part owners with the Phillips Petroleum Company in the Fonzo and Fort wells, we refer again to our previous statement and ask that their request for dually completing these wells be denied.

JIMMY POST: Before we close, I would like the record to show that Mr. White is the attorney for the Commission. May this be shown?

[illegible]: Yes. If there is not an objection, we will like to see order [illegible].

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 557
Order No. R-351

THE MATTER OF THE APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR PERMISSION TO EFFECT DUAL COMPLETION OF ITS FONZO NO. 1 WELL, LOCATED IN NW/4 NW/4, SECTION 35, TOWNSHIP 14 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY, NEW MEXICO (IN THE DENTON FIELD) IN SUCH A MANNER AS TO PERMIT PRODUCTION OF OIL FROM THE DEVONIAN FORMATION, THROUGH EXISTING CASING PERFORATIONS, 12,580 TO 12,680 FEET, AND FROM 12,456 TO 12,550 FEET, AND OIL FROM THE WOLFCAMP FORMATION, AFTER PERFORATING 9590 TO 9260 FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 16, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 28th day of August, 1953, the Commission, a quorum being present, having considered the application and the testimony adduced at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

(2) That dual completion of the Fonzo No. 1 Well, in the NW/4 NW/4 Section 35, Township 14 South, Range 37 East, NMPM, in the Denton Field, Lea County, New Mexico, for production of oil from the Denton-Wolfcamp formation and oil from the Denton-Devonian formation would be subject to the operational hazards incident to great depths.

(3) That there exists between the two reservoirs a considerable pressure differential, and, should interzone communication occur from any reason, the deeper Devonian Reservoir with the higher pressure would be injured.

(4) That testimony shows that packer, and other mechanical failures in oil-oil completions at various depths have caused injurious interzone communication in reservoirs in other areas under conditions similar to those existing in the Denton Field.

(5) That applicant's testimony as to the economic effectiveness of the Wolfcamp pay section under the subject well appears to be unduly conservative.

(6) That application for oil-oil dual completion of the Fonzo No. 1 well should be denied.

IT IS THEREFORE ORDERED:

That the application of Phillips Petroleum Company for permission to dually complete its Fonzo No. 1 Well, located in the NW/4 NW/4, Section 35, Township 14 South, Range 37 East, NMPM, for oil from the Denton-Wolfcamp formation and oil from the Denton-Devonian formation be, and the same hereby is denied.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

R. R. SPURRIER, Secretary

SEAL

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

December 10, 1953

COPY

Mr. E. H. Foster
Legal Department
Phillips Petroleum Company
Amarillo, Texas

Dear Judge Foster:

We enclose copies of Order R-350-B in Case 556, and Order R-351-B in Case 557, these having been signed today in a meeting of the Commission.

You will notice that they have been signed by Mr. Spurrier and Land Commissioner Walker, who were present at the meeting. Rather than delay your receiving the orders, we are sending them on to you signed by the quorum only, as the third member of the Commission, Governor Mechem, is out of the state for a few days.

Very truly yours,

W. B. Macey,
Chief Engineer

WBM:nr

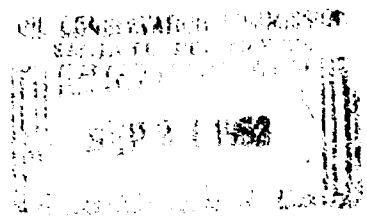
Encl.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 557
Order No. R-351

THE MATTER OF THE APPLICATION OF
PHILLIPS PETROLEUM COMPANY FOR
PERMISSION TO EFFECT DUAL COMPLETION
OF ITS FONZO NO. 1 WELL, LOCATED IN
NW/4 NW/4, SECTION 35, TOWNSHIP 14
SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY,
NEW MEXICO (IN THE DENTON FIELD)IN SUCH
A MANNER AS TO PERMIT PRODUCTION OF OIL
FROM THE DEVONIAN FORMATION, THROUGH
EXISTING CASING PERFORATIONS, 12,580 TO
12,680 FEET, AND FROM 12,456 TO 12,550 FEET,
AND OIL FROM THE WOLFCAMP FORMATION, AFTER
PERFORATING 9590 TO 9260 FEET.



PETITION FOR REHEARING

Comes now Phillips Petroleum Company and respectfully petitions the Oil Conservation Commission of New Mexico for a rehearing in the above captioned matter, and in support thereof would show:

1. That Petitioner was the applicant in Case No. 557 before the Oil Conservation Commission of New Mexico, and is adversely affected by Order No. R-351 entered therein.

2. That while said order bears the date August 28, 1953, Petitioner was not notified that such order had been entered, or that any order had been entered, within the time allowed for applying for rehearing, and in that respect has been denied its rights as provided by law. (Sec. 69-223, New Mexico Statutes, 1941 Annotated, 1949 Supp.)

3. That the Commission erred in entering its order in this case, the same being Order No. R-351, and that said order is unlawful in that it is unreasonable, arbitrary and capricious and would deprive Petitioner of a valuable property right without due process of law, in the following respects:

(a) The order is not supported by the evidence offered in this case, and there is no substantial evidence in the record to support said order.

(b) That the findings of the Commission are vague and indefinite, subject to ambiguity and doubt, and are insufficient to support the order of the Commission.

(c) That the findings of fact are not supported by substantial evidence, and are contrary to the evidence presented.

(d) That the testimony offered and exhibits introduced clearly show that the dual completion of the Fonzo No. 1 well in the NW/4 NW/4 Section 35, Twp. 14 S., R. 37 E., NMPM will not subject such well to operational hazards, that no serious danger of interzone communication exists and that reservoir conditions are highly favorable to the dual completion as proposed, and the equipment proposed to be used will afford adequate and ample protection to all producing horizons, all as is clearly shown by the testimony and exhibits offered at said hearing, and that such dual completion will result in the prevention of waste and protection of correlative rights.

(e) That the Commission order was not entered in accordance with law.

(f) That the order will require the drilling of an excessive number of wells, with attendant risks and economic loss.

WHEREFORE PETITIONER PRAYS:

1. That this petition for rehearing be considered timely filed.

2. That a rehearing of Case No. 557 be granted by the Commission.

3. That the Commission rescind its Order No. R-351, dated August 28, 1953, and enter in lieu thereof its order approving the dual completion of Petitioner's Fonzo No. 1 well, in the NW/4 NW/4 Section 35, T. 14 S., R. 37 E., NMPM, Lea County, New Mexico, for the production of oil from the Denton-Wolfcamp formation, and oil from the Denton-Devonian formation, all as proposed and prayed in the original petition herein.

Respectfully submitted.

Phillips Petroleum Company

By Jason W. Kellahin
Jason W. Kellahin
Attorney for Petitioner
Santa Fe, New Mexico

MAIN OFFICE OCC
1954 JUL 2 AM 11:40

CARL H. GILBERT
L. C. WHITE
WILLIAM W. GILBERT
SUMNER S. KOCH

GILBERT, WHITE AND GILBERT
ATTORNEYS AND COUNSELORS AT LAW
BISHOP BUILDING
SANTA FE, NEW MEXICO

July 1, 1954

Oil Conservation Commission
Santa Fe, New Mexico

Attention: Mr. Spurrier
Re: Phillips Petroleum Company
vs Oil Conservation Commission of
the State of New Mexico

Gentlemen:

Enclosed herewith please find Notice of Setting which we received from the Clerk of the District Court of Lea County. Please note the cause has been set for hearing July 23 at 9 o'clock a.m. at the Court House in Lovington, New Mexico.

As a matter of information this notice was sent to the undersigned by reason of the fact that at the time of the filing the above cause I was one of the Attorneys for the Oil Conservation Commission, and their attorney of record in the cause.

Wishing you success in the final outcome, I am

Very truly yours,

L. C. WHITE

LCW-c
encl.

IN THE DISTRICT COURT OF LEA COUNTY
STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY
PLAINTIFF

No. 11422

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, Composed of Edwil L.Mecham, Governor et al
DEFENDANT

NOTICE OF SETTING

To JASON KELLAHIN, P.O°Box 361, Santa Fe, New Mexico
Attorney for Plaintiff

To GILBERT,WHITE and GILBERT, Santa Fe, New Mexico
Attorney for Defendant

You are hereby notified that the above styled and numbered cause has been set for hearing at 9 o'clock a m., on the 23rd day of JULY 19 54, at the Court House in Lovington, County of Lea, New Mexico.

W.M.BEAUCHAMP
Clerk of the District Court, New Mexico.

By: Lucille B Luster
Deputy

SUMMONS

IN THE DISTRICT COURT, COUNTY OF LEA, STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPAN Y

....., Plaintiff

VS.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, composed of Hon. Edwin L. Mechem, Governor and chairman, Hon. E. S. Walker, Commissioner of Public Lands, Member, and Hon. Richard R. Spurrier, State Geologist and Secretary, Defendant

DEC 30 1953

NO. 11422

Defendants

THE STATE OF NEW MEXICO

TO: Oil Conservation Commission of the State of New Mexico,

Hon. Edwin L. Mechem, Chairman

Hon. E. S. Walker, Member

Richard R. Spurrier, Secretary

Greeting: Defendants

You are hereby commanded to appear before the Fifth Judicial Court District of the State of New Mexico, sitting within and for the County of Lea, that being the county in which the complaint herein is filed, within thirty days after service of this summons, then and there to answer the complaint of Phillips Petroleum Company, Plaintiff in the above cause.

You are notified that unless you so appear and answer, the plaintiff will apply to the court for the relief demanded in the complaint together with costs of suit.

WITNESS, the Honorable C. ROY ANDERSON, District Judge of the Fifth Judicial District Court of the State of New Mexico, and the Seal of the District Court of Lea County, this 29th day of December A. D., 19 53

Seal

Wm Beauchamp
Clerk of the District Court.

By .....
Deputy.

A statement of the nature of the action in general terms, viz: Complaint Attached

Wm Beauchamp
Clerk of the District Court.

By .....
Deputy.

SHERIFF'S RETURN

State of New Mexico,
County of Lea

I, ...
Sheriff of Lea County, New Mexico, do hereby certify that this writ came to hand the

..... day of ....., 19.....

and that I served the same at the time delivered to me

for service herewith ..... cop.....

of this summons and .....cop.....
of the complaint filed therein; that I made such service herein by delivering one copy of this summons and one copy of the complaint herein to each of the within named defendant.....
within the said County of Lea, as follows to-wit:

.....

.....

.....
(Name)

on ..... and
(Date of Service)

.....

on .....

.....

FEES FOR SERVICE

Serving writ and return . . . $.....

Mileage . . . . . $.....

Total . . . . . $.....

....., Sheriff

By ....., Deputy

No. .....

IN THE

DISTRICT COURT

LEA COUNTY, NEW MEXICO

PHILLIPS PETROLEUM COMPANY

.....

Plaintiff.....

VS.

OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO,
Et Al

.....

Defendant.....

SUMMONS

Jason W. Kellahin
Attorney at Law
P.O.Box 361
Santa Fe,New Mexico

Attorney..... for Plaintiff.....

AFFIDAVIT OF SERVICE.

THE STATE OF NEW MEXICO
COUNTY OF LEA
ss.

I, ..., being first duly sworn, on oath, state: That I am a citizen of the United States and over the age of eighteen years, and not a party of said action that I have made service of the within summons in the above-named county and state by delivering a true copy of this summons together with a copy of the complaint, filed in said cause to (each of) the following defendant..... herein named, to-wit:

.....on ....., 19.....

.....on ....., 19.....

.....on ....., 19.....

.....

Subscribed and sworn to before me this..... day of....., 19....

.....

.....

.....

In the District Court of [illegible] County, [illegible]

[illegible]

[illegible] COMPANY, Complainant	(
v.	(
OIL CONSERVATION COMMISSION of the State of New Mexico, composed of Hon. Edwin L. Mechem, Governor and Chairman, Hon. E. S. Walker, Commissioner of Public Lands, and Hon. Richard S. Morris, State Geologist and Secretary, Defendants	(No. 11422

COMPLAINT

Comes now Phillips Petroleum Company, a corporation, organized, created and existing under and by virtue of the laws of the State of Delaware, with a permit to do business and doing business in the State of New Mexico, hereinafter called complainant, and complaining of the Oil Conservation Commission of the State of New Mexico, composed of the Hon. Edwin L. Mechem, Governor of the State of New Mexico, Chairman, Hon. E. S. Walker, Commissioner of Public Lands, Member, and Hon. Richard S. Morris, State Geologist of the State of New Mexico and Secretary, hereinafter referred to as Commission, and for cause of action against the Commission alleges:

1.

The complainant, Phillips Petroleum Company, is a corporation, [illegible]

may be found for the purpose of the service of process, [illegible], in Lea County, State of New Mexico.

3.

The Oil Conservation Commission of the State of New Mexico as constituted is a statutory agency vested with power to limit and prorate production of crude petroleum and natural gas in the State of New Mexico. As a statutory agency it is charged with the proper administration and enforcement of all laws, rules and regulations pertaining to the conservation and proration of oil and gas production, and as such duly constituted agency has exercised its delegated authority in relation to the complainant as hereinafter alleged.

4.

At all times hereinafter alleged, Phillips Petroleum Company has been and still is engaged in the business of producing oil and gas in the State of New Mexico. It is the owner of an oil well known as its Monso No. 1 well, located in the NW/4 NE/4 Section 35, Township 14 S, Range 37 E, N.M.P.M. in the Denton field in Lea County, New Mexico, on which it holds a good and valid and subsisting oil and gas lease. As the owner of the Monso No. 1 well it is, within the definition of the term owner as used in the Conservation Statutes of the State of New Mexico, vested with the right to drill into and produce oil and gas from the Denton Devonian formation and the Denton Wolfcamp formation which overlies the Denton Devonian formation in the Denton field, and appropriate the production of the oil and gas to its own use.

5.

That the Commission has and by statute is given jurisdiction and authority over all matters relating to the conservation of oil and gas in the State of New Mexico, and of the enforcement of all provisions of the oil and gas conservation act, and of any other law of this state now or hereafter relating to the conservation of oil and gas. That the Commission has the power and jurisdiction, authority and duty to prescribe rules and to make orders pertaining to the manner, to the conservation of oil and gas in the State of New Mexico.

6.

That at all times hereinafter alleged Phillips Petroleum Company has been and still is engaged in the business of producing oil and gas in the State of New

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of New Mexico. As an oil and gas producer it is and has been and now is adversely affected by a recent order of the Commission with respect to its property and property rights in Cause No. 557 before the Commission and by Orders R-351 and R-351-A issued in Cause No. 557.

7.

Phillips Petroleum Company alleges that on and prior to July 17, 1952, it completed an oil well in the Devonian formation in the Denton field in Lea County, New Mexico, known as its Fonso No. 1 well, located in the N/4 NW/4 Section 35, Township 14 S, Range 37 E, N.M.P.M., Lea County, New Mexico. The well was completed at a plug-back total depth of 12,687 feet. That in completing the well it drilled through the Wolfcamp formation, which overlies the Devonian formation which is reached at a lesser depth. That the Fonzo Well No. 1 is capable of being non-wastefully operated so as to produce both from the Devonian formation and the Wolfcamp formation without the necessity of drilling an additional well to produce oil encountered in the well bore of the Fonso well No. 1 in the Wolfcamp formation.

8.

On June 15, 1953, and in compliance with the provisions of Rule 112 of the Commission, Phillips Petroleum Company filed its application requesting permission of the Commission to dually complete its Fonzo Well No. 1 so as to produce oil from both the Devonian and the Wolfcamp formation in the Denton field.

9.

That due notice was given to all interested parties of the application of Phillips Petroleum Company to dually complete its well and thereafter a hearing was held before the Commission on [illegible], on July 15, 1953, that on September 8, 1953, the Commission duly entered its Order No. R-351, dated September 8, 1953, granting to Phillips Petroleum Company authority to dually complete its Fonzo Well No. 1.

10.

That in due time after the entry of Order No. R-351 the Oil Conservation Commission, [illegible] Phillips Petroleum Company filed with the Commission its petition for a re-hearing in Cause No. 557. On September 28, 1953, the Commission, by its Order No. R-351-A, [illegible]

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11.

That pursuant to the Order of [illegible], a re-hearing was had before the Commission on October 15, 1953. On December 24, 1953, the Commission entered its Order No. R-351-A, dated December 10, 1953, denying Phillips Petroleum Company permission to dually complete its Jones No. 1 well.

12.

That attached hereto and made a part of this complaint and by reference thereto incorporated herein for all purposes, are true and correct copies of the Orders of the Commission R-351 and R-351-A.

13.

Phillips Petroleum Company alleges that by virtue of the issuance and entry of Orders Nos. R-351 and R-351-A, it has exhausted its administrative remedy before the Commission and that it is a person in interest and affected by the Orders, and as such prosecutes its appeal therefrom to this Court.

14.

Phillips Petroleum Company alleges that the action of the Commission in denying to it permission to dually complete its well is unreasonable, arbitrary, confiscatory, illegal, erroneous, and void, and deprives it of its property and a valuable property right without due process of law upon each and all of the grounds and for each and all of the reasons following:

(a) The orders are not supported by the evidence and there is no substantial evidence to support the orders.

(b) The findings of the Commission are vague and indefinite, ambiguous and doubtful, and wholly insufficient to support the orders of the Commission.

(c) That the findings of fact of the Commission are not supported by substantial evidence and are contrary to the evidence, and are not supported by any evidence.

(d) That the testimony offered and exhibits introduced clearly show that the dual completion of the well will not subject such well to operational hazards, that no serious source of interference exists, and that reservoir conditions are highly favorable for the dual completion of the well as proposed, and that the [illegible] proposed to be [illegible]

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ample protection to all producing [illegible], [illegible] of which was clearly shown by the testimony [illegible] at the hearings, and that such dual completion will result in the prevention of waste and the protection of correlative rights.

(e) That the orders of the Commission were not entered in accordance with law.

(f) That the orders will require the drilling of an excessive number of wells with attendant risks and economic loss.

15.

That each and all of the grounds of error as above alleged were contained in the petition for rehearing filed with the Commission, and were urged upon the Commission and were acted upon by the Commission at the hearings.

WHEREFORE, premises considered, Phillips Petroleum Company prays that proper process be issued to the New Mexico Oil Conservation Commission of the State of New Mexico, composed of the Hon. Edwin L. Mechem, Governor of the State of New Mexico, Hon. E. S. Walker, Commissioner of Public Lands of the State of New Mexico, and Hon. Richard L. Spurrier, State Geologist of the State of New Mexico, commanding it and them in terms of law to appear and answer the Complaint of Phillips Petroleum Company, and that upon hearing herein this Honorable Court enter its judgment reversing the action of the New Mexico Oil Conservation Commission and its members in entering Orders R-351 and R-351-A, denying to the Complainant permission to dually complete the Penzo Well No. 1, and remanding this cause to the Commission for the entry of an appropriate order, together with such other and further relief, both in law and in equity to which the Complainant may show itself justly entitled.

Jason W. Kellahin

E. L.

E. J. Roberts

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO
SANTA FE, NEW MEXICO

Case No. 557
Order No. R-351

THE MATTER OF THE APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR PERMISSION TO DEEPEN ITS WELL OF ITS FARGO No. 1 WELL, LOCATED IN NW/4 NW/4, SECTION 35, TOWNSHIP 14 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY, NEW MEXICO (IF THE DEEPER POOL) IN SUCH A MANNER AS TO PERMIT PRODUCTION OF OIL FROM THE DEEPER FORMATION, THROUGH EXISTING CASING PERFORATIONS, 12,500 TO 12,680 FEET, AND FROM 12,456 TO 12,550 FEET, AND ALL FROM THE WOLFCAMP FORMATION, AFTER PLUGGING BACK 9,590 to 9,260 FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 26, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 29th day of July, 1953, the Commission, a quorum being present, having considered the application and the testimony adduced at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

(2) That said completion of the Fargo No. 1 well, in the NW/4 NW/4 of Section 35, Township 14 South, Range 37 East, NMPM, in the above-styled pool, is unorthodox, but permission to complete said well as an oil well should be granted.

(3) That the proposed deepening of the aforesaid well will not [illegible]

(4) That [illegible]

(5) That [illegible]

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3-19-73 [illegible]

-4-
Case No. 557
Order No. R-351

(6) That application for oil-oil dual completion of the Ponce No. 1 well should be denied.

IT IS THEREFORE ORDERED:

That the application of Phillips Petroleum Company for permission to dually complete its Ponce No. 1 well, located in the N/4 N/4, section 35, Township 14 South, Range 37 East, NMPM, for oil from the Fenton-Wolfcamp formation and oil from the Fenton-Devonian formation be, and the same hereby is denied.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

/s/ A. L. Porter

A. L. PORTER, Chairman

/s/ E. S. Walker

E. S. WALKER, Member

/s/ A. R. Kurtz

A. R. KURTZ, Secretary

SEAL

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[illegible]

[illegible]
[illegible]

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

Case No. 557
Order No. R-351-B

IN THE MATTER OF THE APPLICATION
OF PHILLIPS PETROLEUM COMPANY
FOR PERMISSION TO EFFECT DUAL
COMPLETION OF ITS POWELL NO. 1
WELL, LOCATED IN THE NE/4 NW/4
SECTION 35, TOWNSHIP 14 SOUTH,
RANGE 37 EAST, NMPM, LEA COUNTY,
NEW MEXICO (IN THE ABRAM FIELD),
IN SUCH A MANNER AS TO PERMIT
PRODUCTION OF OIL FROM THE DEVON-
IAN FORMATION THROUGH CASING PERFO-
RATIONS, 12,580 to 12,680 FEET,
AND OIL FROM THE MISSISSIPPIAN
FORMATION THROUGH PERFORATIONS FROM 9,590 to 9,260
FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing upon the petition of Phillips Petroleum Company on July 16, 1953 at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission" and for re-hearing on October 15, 1953.

NOW, on this 10th day of December, 1953, the Commission, a quorum being present, having fully considered the record and the testimony adduced and the exhibits received at said hearing and re-hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given, in accordance with law, the Commission has jurisdiction of this cause, the persons and subject matter thereof.

(2) That [illegible] Order No. R-351, [illegible] prohibits the dual completion (wells) of the [illegible] No. 1, [illegible] Section 35, [illegible] New Mexico, in such manner as to permit production of oil from the Devonian formation through casing perforations from 12,580 to 12,680 feet, and oil from the Mississippian formation through perforations from 9,590 to 9,260 feet.

(3) That [illegible] Order No. R-351 [illegible] the Commission [illegible] dual completion of wells [illegible] Section 35, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico.

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Order No. R-351-B

It is therefore ordered:

That Phillips Petroleum Company's application for permission to dually complete its Ponto No. 1 well located in the N/4 N/4 section 35, Township 14 South, Range 37 East, N.M.P.M., Lea County, New Mexico for production of oil from the Benton-Wolfcamp Pool, and oil from the Benton-Devonian Pool be and the same hereby is denied and the Commission's Order No. R-351 be and the same hereb is affirmed.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

MURRAY E. MORGAN, Chairman

E. S. WALKER, Member

A. L. PORTER, Jr., Member and Secretary

SEAL

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Sent
To Post

IN THE DISTRICT COURT OF LEA COUNTY
STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY,

Plaintiff,

vs.

OIL CONSERVATION COMMISSION OF NEW MEXICO, ET AL.

Defendants.

No. 11, 42[illegible]

NOTICE OF WITHDRAWAL

Comes now L. C. White, attorney of record for the Oil Conservation Commission of the State of New Mexico in the above entitled cause, and withdraws as their attorney of record.

Attorney for the Oil Conservation Commission of the State of New Mexico.

CERTIFICATE

I hereby certify that I have this 15th day of July, 1954, mailed a copy of the foregoing to Mr. Willard F. Kitts, Attorney at Law, 116 East Palace Avenue, Santa Fe, New Mexico, and to Mr. Jason W. Kellahin, Attorney at Law, Laughlin Building, Santa Fe, New Mexico, they being the attorneys of record for the plaintiff herein.

Attorney for the Oil Conservation Commission of the State of New Mexico.

GILBERT, WHITE AND GILBERT
ATTORNEYS AT LAW
SANTA FE, NEW MEXICO

37 1963 1 6 13

In the District Court of the [illegible] County,

[illegible] Judicial District

State of New Mexico County of [illegible]

Phillips Petroleum Company, Complainant	
v.	
OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, composed of Hon. Edwin L. Mechem, Governor and Chairman, Hon. E. S. Walker, Commissioner of Public Lands, and Hon. Richard A. Spurrier, State Geologist and Secretary, Defendants	No. 11422

COMPLAINT

Comes now Phillips Petroleum Company, a corporation, organized, created and existing under and by virtue of the laws of the State of Delaware, with a permit to do business and doing business in the State of New Mexico, hereinafter called complainant, and complaining of the Oil Conservation Commission of the State of New Mexico, composed of the Hon. Edwin L. Mechem, Governor of the State of New Mexico, Chairman, Hon. E. S. Walker, Commissioner of Public Lands, Member, and Hon. Richard A. Spurrier, State Geologist of the State of New Mexico and Secretary, hereinafter referred to as Commission, and for cause of action against the Commission alleges:

1.

The complainant, Phillips Petroleum Company, is a corporation organized, created and existing under and by virtue of the laws of the State of Delaware, with a permit to do business and doing business in the State of New Mexico. The Oil Conservation Commission of New Mexico is a statutory body created by virtue of the laws of the State of New Mexico, [illegible]

2.

[illegible]

...y be found for the purpose of the service of process, at [illegible], in ...ntaire County, State of New Mexico.

3.

The Oil Conservation Commission of the State of New Mexico as constituted is a statutory agency vested with power to limit and prorate production of crude petroleum and natural gas in the State of New Mexico. As a statutory agency it is charged with the proper administration and enforcement of all laws, rules and regulations pertaining to the conservation and proration of oil and gas production, and as such duly constituted agency has exercised its delegated authority in relation to the complainant as hereinafter alleged.

4.

At all times hereinafter alleged, Phillips Petroleum Company has been and still is engaged in the business of producing oil and gas in the State of New Mexico. It is the owner of an oil well known as its Ponso No. 1 well, located in the NW/4 NE/4 Section 35, Township 14 S, Range 37 E, N.M.P.M. in the Denton field in Lea County, New Mexico, on which it holds a good and valid and subsisting oil and gas lease. As the owner of the Ponso No. 1 well it is, within the definition of the term owner as used in the Conservation Statutes of the State of New Mexico, vested with the right to drill into and produce oil and gas from the Denton Devonian formation and the Denton Wolfcamp formation which overlies the Denton Devonian formation in the Denton Field, and appropriate the production of the oil and gas to its own use.

5.

That the Commission has and by statute is given jurisdiction and authority over all matters relating to the conservation of oil and gas in the State of New Mexico, and of the enforcement of all provisions of the Oil and Gas Conservation Act, and of any other law of the State of New Mexico relating to the conservation of oil and gas, and includes in the power in jurisdiction, authority and duty, to prescribe rules and regulations [illegible] conservation of oil and gas in the State of New Mexico.

6.

That [illegible] is required to the conservation of oil and gas in the State

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of New Mexico. As an oil and gas producer it is and has been and now is adversely affected by a recent order of the Commission with respect to its property and property rights in Cause No. 557 before the Commission and by Orders R-351 and R-351-E issued in Cause No. 557.

7.

Phillips Petroleum Company alleges that on and prior to July 17, 1952, it completed an oil well in the Devonian formation in the Denton field in Lea County, New Mexico, known as its Fonzo No. 1 well, located in the NW/4 NW/4 Section 35, Township 14 S, Range 37 E, N.M.P.M., Lea County, New Mexico. The well was completed at a plug-back total depth of 12,687 feet. That in completing the well it drilled through the Wolfcamp formation, which overlies the Devonian formation which is reached at a lesser depth. That the Fonzo Well No. 1 is capable of being non-wastefully operated so as to produce both from the Devonian formation and the Wolfcamp formation without the necessity of drilling an additional well to produce oil encountered in the well bore of the Fonzo Well No. 1 in the Wolfcamp formation.

8.

On June 15, 1953, and in compliance with the provisions of Rule 112 of the Commission, Phillips Petroleum Company filed its application requesting permission of the Commission to dually complete its Fonzo Well No. 1 so as to produce oil from both the Devonian and the Wolfcamp formation in the Denton field.

9.

That due notice was given to all interested parties of the application of Phillips Petroleum Company to dually complete its well and thereafter a hearing was held before the Commission in Santa Fe, New Mexico, on July 16, 1953. That on September 3, 1953, the Commission duly entered its Order No. R-351, dated August 24, 1953, granting to Phillips Petroleum Company permission to dually complete its Fonzo Well No. 1.

10.

That in due time after the entry of Order No. R-351 and on September 21, 1953, Phillips Petroleum Company filed with the Commission its petition for a re-hearing in Cause No. 557. On September 22, 1953, the Commission, by its Order No. R-351-E, granted a re-hearing to Phillips Petroleum Company.

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11.

That pursuant to the Order of re-hearing, a re-hearing was had before the Commission on October 15, 1953. On December 24, 1953, the Commission entered its Order No. R-351-B, dated December 10, 1953, denying Phillips Petroleum Company permission to dually complete its Lonzo No. 1 well.

12.

That attached hereto and made a part of this complaint and by reference thereto incorporated herein for all purposes, are true and correct copies of the Orders of the Commission R-351 and R-351-B.

13.

Phillips Petroleum Company alleges that by virtue of the issuance and entry of Orders Nos. R-351 and R-351-B, it has exhausted its administrative remedy before the Commission and that it is a person in interest and affected by the Orders, and as such prosecutes its appeal therefrom to this Court.

14.

Phillips Petroleum Company alleges that the action of the Commission in denying to it permission to dually complete its well is unreasonable, arbitrary, confiscatory, illegal, erroneous, and void, and deprives it of its property and a valuable property right without due process of law upon each and all of the grounds and for each and all of the reasons following:

(a) The orders are not supported by the evidence and there is no substantial evidence to support the orders.

(b) The findings of the Commission are vague and indefinite, ambiguous and doubtful, and wholly insufficient to support the orders of the Commission.

(c) That the findings of fact of the Commission are not supported by substantial evidence and are contrary to the evidence, and are not supported by any evidence.

(d) That the testimony offered and exhibits introduced clearly show that the dual completion of the well will not subject such well to operational hazards, that no serious danger of inter-zonal communication exists, and that reservoir conditions are highly favorable to the dual completion of the well as proposed, and that the equipment proposed to be used will effect and give

and ample protection to all producing horizons, all of which was clearly shown by the testimony and exhibits at the hearings, and that such dual completion will result in the prevention of waste and the protection of correlative rights.

(e) That the orders of the Commission were not entered in accordance with law.

(f) That the orders will require the drilling of an excessive number of wells with attendant risks and economic loss.

15.

That each and all of the grounds of error as above alleged were contained in the petition for rehearing filed with the Commission, and were urged upon the Commission and were acted upon by the Commission at the hearings.

WHEREFORE, premises considered, Phillips Petroleum Company prays that proper process be issued to the New Mexico Oil Conservation Commission of the State of New Mexico, composed of the Hon. Edwin L. Mechem, Governor of the State of New Mexico, Hon. E. S. Walker, Commissioner of Public Lands of the State of New Mexico, and Hon. Richard R. Spurrier, State Geologist of the State of New Mexico, commanding it and them in terms of law to appear and answer the Complaint of Phillips Petroleum Company, and that upon hearing herein this Honorable Court enter its judgment reversing the action of the New Mexico Oil Conservation Commission and its members in entering orders R-351 and R-351-B, denying to the complainant permission to dually complete its Sonzo Well No. 1, and remanding this cause to the Commission for the entry of an appropriate order, together with such other and further relief, both in law and in equity to which the complainant may show itself justly entitled.

Jason W. Kellahin
Jason W. Kellahin

[illegible]

C. J. Roberts
C. J. Roberts

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

Case No. 557
Order No. [illegible]-351

THE MATTER OF THE APPLICATION OF
PHILLIPS PETROLEUM COMPANY FOR
PERMISSION TO EFFECT DUAL COMPLETION
OF ITS FORZO No. 1 WELL, LOCATED IN
N½/4 NW/4, SECTION 35, TOWNSHIP 14
SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY,
NEW MEXICO (IN THE DAKOTA POOL) IN SUCH
A MANNER AS TO PERMIT PRODUCTION OF OIL
FROM THE DAKOTAN FORMATION, THROUGH
EXISTING CASING PERFORATIONS, 12,530 TO
12,680 FEET, AND FROM 12,456 TO 12,550 FEET,
AND GAS FROM THE MORRISON FORMATION,
AFTER PERFORATING 9,590 to 9,260 FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 16, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 28th day of August, 1953, the Commission, a quorum being present, having considered the application and the testimony adduced at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

(2) That dual completion of the Forzo No. 1 well, in the N½/4 NW/4 [illegible], Township 14 South, Range 37 East, [illegible], in such manner that [illegible] New Mexico, for production [illegible] the Dakota formation [illegible] will not [illegible] subject to the approval [illegible] and the Commission.

(3) That [illegible] the evidence [illegible] the Dakota formation, [illegible] the Morrison formation, [illegible] the Morrison [illegible].

(4) That [illegible] the Dakota [illegible] the Morrison [illegible] the Dakota [illegible] the Morrison [illegible].

(5) That [illegible] the Dakota [illegible] the Morrison [illegible] the Dakota [illegible] the Morrison [illegible].

(6) That application for oil-oil dual completion of the Ponso No. 1 well should be denied.

IT IS THEREFORE ORDERED:

That the application of Phillips Petroleum Company for permission to dually complete its Ponso No. 1 well, located in the [illegible] Section 35, Township 14 South, Range 37 East, NMPM, for oil from the Benton-Wolfcamp formation and oil from the Benton-Devonian formation be, and the same hereby is denied.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

/s/ A. L. Porter

[illegible], Chairman

/s/ [illegible]

[illegible], Member

/s/ A. R. Kurtz

[illegible], Secretary

SEAL

557
3-19-73

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

Case No. 557
Order No. R-351-B

THE MATTER OF THE APPLICATION
OF PHILLIPS PETROLEUM COMPANY
FOR PERMISSION TO SET UP A DUAL
COMPLETION OF IT. FUHRO NO. 1
WELL, LOCATED IN THE NW/4 NW/4
SECTION 35, TOWNSHIP 14 SOUTH,
RANGE 37 EAST, HOBBS, LEA COUNTY,
NEW MEXICO (IN THE DENTON FIELD),
IN SUCH A MANNER AS TO PERMIT
PRODUCTION OF OIL FROM THE DEVON-
IAN FORMATION THROUGH EXISTING CASING
PERFORATIONS, 12,580 to 12,690 FEET,
AND OIL FROM THE FUSSELMAN FORMATION
AFTER PERFORATING FROM 9,590 to 9,260
FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing upon the petition of Phillips Petroleum Company on July 16, 1953 at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission" and for re-hearing on October 15, 1953.

NOW, on this 10th day of December, 1953, the Commission, a quorum being present, having fully considered the record and the testimony adduced and the exhibits received at said hearing and re-hearing, and being fully advised in the premises.

FINDS:

(1) That due public notice having been given, in accordance with law, the Commission has jurisdiction of this cause, the persons and subject matter thereof.

(2) That after due public notice and hearing on July 16, 1953, the Commission entered its order No. R-351, denying petitioner's application for dual completion (oil-oil) of its Fuhro No. 1 well, NW/4 NW/4 Section 35, Township 14 South, Range 37 East, N.M.P.M., Lea County, New Mexico in the Denton Field.

(3) That upon motion for rehearing, the Commission granted the re-hearing by its order No. R-351-A, for the purpose of taking additional testimony and hearing oral arguments, and has been re-heard by the Commission on October 15, 1953.

(4) That on evidence presented at both hearings, petitioner has complied with all rules governing dual completions.

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3-17-93

Order No. R-351-B

IT IS THEREFORE ORDERED:

That Phillips Petroleum Company's application for permission to dually complete its Fonto No. 1 well located in the S /4 N-/4 section 35, Township 14 South, Range 37 East, [illegible], Lea County, New Mexico for production of oil from the Denton-Wolfcamp Pool, and oil from the Denton-Devonian Pool be and the same hereby is denied and the Commission's Order No. R-351 be and the same hereb is affirmed.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

[illegible] L. [illegible], Chairman

E. S. [illegible], Member

A. L. [illegible], Member and Secretary

S E A L

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3178

IN THE DISTRICT COURT OF LEA COUNTY

STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY,

Plaintiff

-vs- No. 11,422

OIL CONSERVATION COMMISSION
OF NEW MEXICO, et al.,

Defendant

TRANSCRIPT

MINUTES OF PRE-TRIAL CONFERENCE

BE IT REMEMBERED, That on the 23rd day of July, A. D., 1954, at 9 o'clock, A. M., the above styled and numbered cause came on for pre-trial conference at Lovington, Lea County, New Mexico, in Chambers, before the Honorable John R. Brand, Judge of the Fifth Judicial District in and for Lea County, New Mexico; at which time and place there appeared as follows, to-wit:

Name and Address	Representing
T. J. Roberts P. O. Box 1751 Amarillo, Texas	Phillips Petroleum Company
E. H. Foster P. O. Box 1751 Amarillo, Texas	Phillips Petroleum Company
Jason W. Kellahin P. O. Box 361 Santa Fe, New Mexico	Phillips Petroleum Company

Name and Address	Representing
Ross Madole P. O. Box 900 Dallas, Texas	Magnolia Petroleum Company
Willard F. Kitts P. O. Box 871 Santa Fe, New Mexico	Oil Conservation Commission
Melvin T. Yost P. O. Box 871 Santa Fe, New Mexico	Oil Conservation Commission
H. C. Kerr P. O. Box 1650 Tulsa, Oklahoma (Associate and co-counsel Seth & Montgomery Santa Fe, New Mexico)	Skelly Oil Company
Paxton Howard P. O. Box 1509 Midland, Texas (Associate counsel Seth & Montgomery Santa Fe, New Mexico)	Shell Oil Company

THE COURT: Very well, what is the first order of business? I have read the pleadings.

MR. KALLAHIN: If the Court please, Mr. Roberts, who is a member of the Texas Bar and associated with me here in this case, will be our representative at this conference.

THE COURT: All right. You are the plaintiff. I suppose you may lead off.

MR. ROBERTS: The first matter before the Court is the motion that has been filed by Mr. Madole representing Magnolia, and, if the Court wants to dispose of that before proceeding to the other matters by reason of this suit, we can do that.

THE COURT: Very well. You gentlemen may move up where you can use these desks if you wish.

(Reporter's Note: Whereupon, Mr. Madole presents written motion to dismiss. Mr. Roberts makes oral objection and argument against dismissal of the action, and Mr. Madole counters in behalf of the motion.)

THE COURT: Our rule provides generally that all parties must be named in the original complaint or petition, but, that, thereafter, only the name of one plaintiff and one defendant need be named. I think it would serve no good purpose to require the Phillips Petroleum Company to back up and start over.

Now your objection, the objection of the Magnolia Petroleum Company, is purely technical. I cannot see that any prejudice would result to you from overruling your motion. You are evidently prepared to defend the second matter on its merits and

present your case. Certainly you are an indispensable party. But I do not believe that the failure to name you as a party is fatal. The motion will be overruled.

MR. MADOLE: Probably it ought to be entered that we are a party of record so as to be entitled to an appeal, and at the present time we are not in the petition in any way. The main objection that I had was that I wanted to be in control of the destiny of my own law suit; and, if the Commission should not see fit to appeal for some reason or other and I felt obligated to appeal, that I would be entitled to appeal the case and process it on my own right as a party defendant.

THE COURT: It will be ordered that Magnolia Petroleum and the other two interested companies are of record as party defendants.

Now, then, Mr. Roberts. I believe--

MR. MADOLE: Your Honor, we will have an exception to the ruling of the Court.

THE COURT: Very well.

MR. ROBERTS: I think for me to properly present the points that should be disposed of, or at least considered in this pre-trial conference, I should briefly depict for the Court what this is all about.

THE COURT: I believe I know what it is all about. The only thing, I am hazy about it, reading the record is that you're producing from one stratum and you wish to also produce on the same well from another stratum. I would like to know: are you

now producing from the lower or upper?

MR. ROBERTS: We are producing from the lower, from the Devonian formation.

THE COURT: And you are perforating to produce also from the upper?

MR. ROBERTS: That's right.

THE COURT: And, just as a matter of curiosity, what is the distance between the two?

MR. ROBERTS: Without referring to the files, the Silurian comes within the 9,000-foot level and the Devonian is on the 12,000-foot level.

THE COURT: Yes. All right. Well, my thought on that, considered, is, I believe, this. Recently I held a pre-trial conference in an appeal having been taken from an order held by the Commissioner of Public Lands, and the pre-trial order was entered permitting the parties to introduce such additional testimony as they saw fit but requiring each of the parties to supply the other, within ample time prior to the date of the hearing, with the names and the addresses of the additional witnesses whom they intended to call, and with a summary of what they expected their testimony to disclose. I think such an order would be appropriate here.

(Reporter's Note: Thereupon, Mr. Fitts presented a written "Memorandum of Points and Authorities.")

THE COURT: The new testimony which they propose to introduce will be limited, as you have set out in your paragraph 6,

to such further evidence as may clarify the record, and which is not available below.

Mr. Roberts, how long will it take you to supply the other parties with the names and addresses of additional witnesses that you propose to use, and what you wish to testify to?

MR. ROBERTS: Not longer than 10 days or two weeks, your Honor.

THE COURT: Can you do it in two weeks?

MR. ROBERTS: Yes, sir.

THE COURT: It will be ordered then that you supply all opposing parties with the names and addresses of the additional witnesses that you propose to use with a brief summary of what their testimony is expected to be, and the opposing parties, on receipt of that notice, will furnish Phillips with a similar list.

(Reporter's Note: Thereupon, a tentative setting for hearing was discussed.)

THE COURT: Very well, we will make a tentative setting for the 20th of October 1954.

You will have 20 days to furnish an answer.

MR. MADOLE: For the record, your Honor, they have two weeks. We may need around 20 days to furnish them with that.

THE COURT: The same order will apply to the remainder of you gentlemen.

MR. YATES: Which brings up another matter. Would like to offer the Transcript in evidence.

THE COURT: I am going to overrule you as to that.

(Reporter's Note: Mr. Roberts objects to the transcript being admitted. Mr. Kitts argued that no review of the testimony was expected at this conference.)

THE COURT: I would say this. For example, if I read the record here and someone below is permitted to testify as to pure hearsay evidence without objection, certainly you wouldn't expect this Court to receive that or give that any credence, and that should not be considered if objected to at the hearing in my Court. But what I propose to do, in order to conserve time at the trial, is to read that record before the trial so I'll have it in my mind.

MR. MADOLE: I would wish to reserve the right to inspect that record so as not to be bound by that.

THE COURT: Do you gentlemen have copies of that?

(Reporter's Note: All counsel indicated they did with the exception of Mr. Madole.)

THE COURT: Do you have a copy that you can furnish Mr. Madole?

MR. KITTS: Yes, we can furnish him one.

MR. HOWARD: If the Court please, may I ask one question? We are to furnish a return list of the names and addresses--

THE COURT: Furnish a list by letter to be sent, and you will not be permitted to relate what has been testified to before. It must be additional or by way of clarification.

MR. KITTS: Do I understand the Court's ruling is to be adverse to the admission of the evidence here at this time?

The Court will give it the credence to which he thinks it is entitled but as to matters such as leading questions--

THE COURT: No, I will pay no attention to that, but evidence that is clearly inadmissible by the Commission should be excluded anyway, although, of course, they don't do so.

Gentlemen, I take it that's all.

(Reporter's Note: The conference adjourned at 9:55 a.m.)

** *** **

STATE OF NEW MEXICO :
: ss
COUNTY OF LEA :

I, Clarence V. Johnson, Official Court Reporter of the Fifth Judicial District, in and for the County of Lea, State of New Mexico, do hereby certify that I was the official court reporter in the said District Court, that I reported the proceedings had at the pre-trial conference in the above styled and numbered cause, and that the above and foregoing 8 pages of typewritten matter constitute a full, true and correct transcript of minutes taken at said pre-trial conference.

Clarence V. Johnson
Court Reporter

IN THE DISTRICT COURT OF LEA COUNTY
STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY,

Plaintiff,

vs.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, COMPOSED OF Hon. Edwin L. Mechem, Governor and Chairman, Hon. E. S. Walker, Commissioner of Public Lands, Member, and Hon. Richard R. Spurrier, State Geologist and Secretary,

Defendants.

No. 1122

ANSWER

Comes now the above named defendant and in answer to the complaint herein states:

1. It admits the allegations contained in Paragraphs numbered 1, 2 & 3.

2. In answer to Paragraph numbered 4, defendant admits that plaintiff is and at all material times was engaged in the production of oil and gas within the State of New Mexico and as to the remaining allegations contained therein this defendant does not have sufficient information or knowledge upon which to form a belief as to the truth of the matters therein contained and therefore denies the same.

3. Defendant admits the allegations contained in Paragraph numbered 5.

4. In answer to paragraph numbered 6, defendant expressly denies that plaintiff now is or at any material time has been adversely affected by the orders of the Commission therein complained of or any other order of this Commission mater ial to the issues involved herein.

5. In answer to paragraph numbered 7 of the complaint defendant expressly denies that said well can or is capable of being non-wastefully operated so as to produce from both the Devonian and Wolfcamp formations as therein alleged; and in further answer to said allegations contained in said paragraph defendant states that the dual oil-oil completion of said well as contemplated

GILBERT, WHITE AND GILBERT
ATTORNEYS AT LAW
SANTA FE, NEW MEXICO

and proposed by plaintiff is hazardous, wasteful and contrary to the prudent and reasonable conservation practices within the oil industry, and that said plaintiff can economically produce oil from each formation by the drilling and operation of a separate well to each oil reservoir or formation in question.

6. Defendant admits the allegations contained in paragraphs numbered 8, 9, 10, 11 and 12 of the complaint.

7. Defendant denies each and every allegation contained in paragraphs numbered 13, 14 and 15 of the complaint.

WHEREFORE, defendant prays that plaintiff take nothing by its complaint and that this Honorable Court enter its order affirming each and all of the orders of the Commission complained of by plaintiff herein.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

By _____

_____
Its Attorneys

GILBERT, WHITE AND GILBERT
ATTORNEYS AT LAW
SANTA FE, NEW MEXICO

CERTIFICATE OF SERVICE

I hereby certify that I have this 29th day of January, 1954, mailed a copy of the foregoing Answer to Jason W. Kellahin addressed to him at P. O. Box 361, Santa Fe, New Mexico, he being one of the attorneys of record for the Complainant herein.

_____
One of the Attorneys for Defendant.

SUMMONS

IN THE DISTRICT COURT, COUNTY OF LEA, STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY

....., Plaintiff

VS.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, COMPOSED OF Hon. Edwin L. Mechem, Governor and Chairman, Hon. E. S. Walker, Commissioner of Public Lands, Member, and Hon. Richard R. Spurrier, State Geologist and Secretary, Defendant

NO. 11422

DEC 30 1953

THE STATE OF NEW MEXICO

TO: Oil Conservation Commission of the State of New Mexico,

Hon. Edwin L. Mechem, Chairman

Hon. E. S. Walker, Member

Hon. Richard R. Spurrier, Secretary

Greeting: Defandant.

You are hereby commanded to appear before the Fifth Judicial Court District of the State of New Mexico, sitting within and for the County of Lea, that being the county in which the complaint herein is filed, within thirty days after service of this summons, then and there to answer the complaint of Phillips Petroleum Company, Plaintiff in the above cause.

You are notified that unless you so appear and answer, the plaintiff will apply to the court for the relief demanded in the complaint together with costs of suit.

WITNESS, the Honorable C. ROY ANDERSON, District Judge of the Fifth Judicial District Court of the State of New Mexico, and the Seal of the District Court of Lea County, this 29th day of December, A. D., 1953

Seal

W M Beauchamp
Clerk of the District Court.

By .....
Deputy.

A statement of the nature of the action in general terms, viz: Complaint Attached

W M Beauchamp
Clerk of the District Court.

By .....
Deputy.

AFFIDAVIT OF SERVICE

THE STATE OF NEW MEXICO
COUNTY OF LEA
} SS.

I, ..., being first duly sworn, on oath, state: That I am a citizen of the United States and over the age of eighteen years, and not a party of said action that I have made service of the within summons in the above-named county and state by delivering a true copy of this summons together with a copy of the complaint, filed in said cause to (each of) the following defendant..... herein named, to-wit:

.... on ....., 19.....

..... on ....., 19.....

..... on ....., 19.....

.....

Subscribed and sworn to before me this..... day of ....., 19.....

.....

.....

SHERIFF'S RETURN

State of New Mexico,
County of Lea

I, ...
Sheriff of Lea County, New Mexico, do hereby certify that this writ came to hand the

... ... day of ....., 19.....

and that I ... at the time delivered to me

for service herewith ... ...thereof.

of this summons and ...thereof.
of the complaint filed therein; that I made service hereof by delivering one copy of this summons and one copy of the complaint herein to each of the within named defendant..... within the said County of Lea, as follows to-wit:

.....

.....

(Name)

on ..... and

(Date of Service)

.....

on .....

.....

FEES FOR SERVICE

Serving writ and return . . . $.....

Mileage . . . . . $.....

Total . . . . . $.....

....., Sheriff

By ....., Deputy

No. .....

IN THE

DISTRICT COURT

LEA COUNTY, NEW MEXICO

PHILLIPS PETROLEUM COMPANY

.....
Plaintiff.....

vs.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, Et Al

.....
Defendant.....

SUMMONS

Jason W. Kellahin
Attorney at Law
P.O.Box 361
Santa Fe,New Mexico

Attorney..... for Plaintiff.....

Re: Application of Phillips Petroleum Company to effect Oil-Oil Dual Completions between the Devonian and Wolfcamp formations in its Fort Well No. 1, Ponzo Well No. 1, and Penton Wells Nos. 12 and 13, Penton Field, Lea County, New Mexico

Mr. W. B. Macey
Chief Engineer, Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Macey:

Phillips Petroleum Company desires to oil-oil dually complete between the Devonian and Wolfcamp formations the following wells:

1. Fort Well No. 1, located in the NW/4 NE/4, Section 34-14S-37E, Lea County, New Mexico. This well was completed on September 1, 1951, in the Devonian ray at a plugged back total depth of 12,724 feet. 12,739 feet of 5-1/2" casing was set and perforated opposite the Devonian formation from 12,564 feet to 12,630 feet; and from 12,660 feet to 12,71[illegible] feet.

   It is proposed to perforate the Wolfcamp in this well as follows:

   Perforate 9645'-9680' test for water. If water squeeze
   and Perforate 9580'-9610' test for water. If water squeeze
   and Perforate 9500'-9550' test for water. If water squeeze
   and Perforate 9360'-9400' combine with previous formations that were water free.

   Offset operators to this lease with their addresses are as follows:

   Atlantic Refining Company — Atlantic Building, Dallas, Texas
   Magnolia Petroleum Company — Magnolia Building, Dallas, Texas
   Shell Oil Company — Petroleum Building, Midland, Texas
   Union Texas Natural Gas Co. — [illegible]

2. Ponzo Well No. 1, located in the [illegible]

3. [illegible]

3. Denton Well No. 12, located in the [illegible], Lea County, New Mexico. This well [illegible] 1952, in Devonian pay at a plugged back total depth of 12,772 feet. 12,752 feet of 5-1/2" casing was set and perforated opposite the Devonian formation from 12,650 feet to 12,700 feet; and 12,600 feet to 12,650 feet.

   It is proposed to perforate the Wolfcamp in this well as follows:

	Perforate 9540'-9590'	test for water. If water squeeze
and	Perforate 9430'-9500'	test for water. If water squeeze
and	Perforate 9350'-9460'	test for water. If water squeeze
and	Perforate 9230'-9320'	combine with previous formations that were water free.

   Offset operators to this lease with their addresses are as follows:

Atlantic Refining Company	Atlantic Building, Dallas, Texas
Shell Oil Company	Petroleum Building, Midland, Texas
Gulf Oil Corporation	Gulf Building, Pittsburgh 30, Pennsylvania
Ohio Oil Company	Donnell Building, 539 S. Main St., Findlay, Ohio

4. Denton Well No. 13, located in the NW/4 NW/4, Section 11-15S-37E, Lea County, New Mexico. This well was completed on October 19, 1952, in the Devonian pay at a plugged back total depth of 12,745 feet. 12,736 feet of 5-1/2" casing was set and perforated opposite the Devonian formation from 12,700 feet to 12,730 feet; and from 12,530 feet to 12,670 feet.

   It is proposed to perforate the Wolfcamp in this well as follows:

	Perforate 9530'-9580'	test for water. If water squeeze
and	Perforate 9460'-9500'	test for water. If water squeeze
and	Perforate 9290'-9430'	test for water. If water squeeze
and	Perforate 9150'-9260'	combine with previous formations that were water free.

   Offset operators to this lease with their addresses are as follows:

Atlantic Refining Company	Atlantic Building, Dallas, Texas
Shell Oil Company	Petroleum Building, Midland, Texas
Gulf Oil Corporation	Gulf Building, Pittsburgh 30, Pennsylvania
Ohio Oil Company	Donnell Building, 539 S. Main St., Findlay, Ohio

Baker & Otis equipment will be used in [illegible], together with some additional equipment [illegible] Tools, [illegible] lift installations. [illegible] of proposed installations, and will [illegible] equipment and installations to the Commission.

[illegible]

[illegible]

[illegible]

[illegible]

IN THE DISTRICT COURT OF LEA COUNTY

STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY Plaintiff v. OIL CONSERVATION COMMISSION OF NEW MEXICO, ET AL Defendants	)	No. 11422

NOTICES OF WITNESSES TO BE USED, THEIR ADDRESSES, AND SUMMARY OR NATURE OF THEIR TESTIMONY

TO PHILLIPS PETROLEUM COMPANY, OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, THE SKELLY OIL COMPANY, AND SHELL OIL COMPANY:

You are hereby notified, in accordance with instructions of the Court given on July 23, 1954, that the names, addresses, and the nature of the testimony of the witnesses of Magnolia Petroleum Company expected to be used in the trial of this action are as follows:

W. A. Daniel
Kermit, Texas

Information pertaining to dual oil-oil completions in the East Texas area, their operation and difficulties experienced, the cost of drilling wells in the Eunice Field, New Mexico, the accumulated production of existing wells in the Wolfcamp formation in the Denton Field, the estimated ultimate recovery therefrom, and the reservoir characteristics of the Wolfcamp formation and the Devonian formation in the Denton Field, New Mexico.

Leonard O. Franklin
Midland, Texas

Information pertaining to dual oil-oil completions in the West Texas area, their operation and difficulties experienced, and the cost of workovers due to mechanical failures.

R. C. Handle
Brownfield, Texas

Information pertaining to dual oil-oil completions in the West Texas area, their operation and difficulties experienced, and the cost of workovers due to mechanical failures.

V. E. Leonard
Duncan, Oklahoma

Information pertaining to dual oil-oil completions in Oklahoma, their operation and difficulties experienced, and the cost of workovers due to mechanical failures.

John D. Howard
Vanderbilt, Texas

Information pertaining to dual oil-oil completions in the Texas Gulf Coast area, their operation and difficulties experienced, and the cost of workovers due to mechanical failures.

Earl F. Thurman
Midland, Texas

Information pertaining to dual oil-oil completions in the East Texas area, their operation and difficulties experienced, the cost of workovers due to mechanical failures, limitations of dual zone artificial lift equipment, and the reservoir characteristics of the Wolfcamp and Devonian formations in the Fenton Field, New Mexico.

Robert E. Murphy
Roswell, New Mexico

Reservoir characteristics of fields of West Texas and New Mexico as related to the Phillips' Ponzo No. 1.

The extent and necessity of the use of such witnesses will be dependent upon the extent that the Court allows the testimony of the proposed Phillips' witnesses as served upon this defendant, and this notice is served without prejudice to its right to object to the admission of testimony of such witnesses of Phillips Petroleum Company.

EARL A. BROWN

CHAS. B. WALLACE

A. L. AIKMAN

RUSS MADOLL

P. O. Box 900
Dallas, Texas

G. T. BAILEY
Lovington, New Mexico

[illegible]

I hereby certify that I have this 31st day of August, 1954 mailed a copy of the foregoing, [illegible] to:

[illegible]
[illegible]
[illegible]
Santa Fe, New Mexico

E. H. Foster
501 First National Bank Building
Amarillo, Texas

H. C. Kerr
P. O. Box 1650
Tulsa, Oklahoma

Paxton Howard
P. O. Box 1509
Midland, Texas

Jason W. Kellahin
P. O. Box 361
Santa Fe, New Mexico

Seth & Montgomery
First National Bank Building
Santa Fe, New Mexico

Ross Madole

ROSS MADOLE

Attorney for Defendant
Magnolia Petroleum Company

CJP:LF 8-5-54 14

IN THE DISTRICT COURT OF LEA COUNTY,

STATE OF NEW MEXICO

Phillips Petroleum Company, Plaintiff	)	
vs.	)	No. [illegible]
Oil Conservation Commission of New Mexico et al., Defendants	)	

NOTICES OF WITNESSES TO BE USED, THEIR ADDRESSES, AND SUMMARY OR NATURE OF THEIR TESTIMONY

TO OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, ITS MEMBERS, THE MAGNOLIA PETROLEUM COMPANY, THE SKELLY OIL COMPANY, AND SHELL OIL COMPANY:

You are hereby notified in accordance with the instruction of the court given on the 23rd day of July, 1954, the names and addresses of the following witnesses expected to be used in the trial of this action, the summary or nature of their testimony being set forth under the names of each witness.

BILL HARVEY
Ada Oil Company
Houston, Texas

Information pertaining to dual oil-oil completions, reflected upon the Corporation Commission's records of the State of Oklahoma, including the number of dually completed wells classified by operators, fields, leases, well names, formations, and depths.

RUSSELL McCLELLAND
Phillips Petroleum Company
Bartlesville, Oklahoma

Information pertaining to dual oil-oil completions reflected upon the Railroad Commission's records of the State of Texas, including the number of dually completed wells, classified by operators, fields, leases, well names, formations, depths, dates, and type of equipment used.

J. K. BUSSELL
Austin, Texas

1. The mechanical feasibility and economic necessity of dual completions at comparable depths, pressures, and other factors pertaining to the Phillips Fonzo No. 1.

2. The history, nature and character of dual oil-oil completions, types of equipment used to prevent intersone communication while either zone is being flowed and/or artificially lifted; safeguards adopted and used by the industry in connection with dual oil-oil completions and the successful results achieved at various depths and pressures.

3. Aspects of the scientific soundness and world-wide industrial acceptance of dual oil-oil completions at comparable depths, pressures and other factors involved in the Phillips Fonso No. 1.

4. Dually completing the Phillips Fonso No. 1 will not result in waste and has a reasonable relationship to waste prevention when the operation thereof is properly supervised through available safeguards, techniques, and methods in preventing intersone communication.

5. Aspects of the confiscatory nature of the Commission's order.

6. Information pertaining to dual oil-oil completions reflected upon the Railroad Commission's records of the State of Texas, including the number of dually completed wells, classified by operators, fields, leases, well names, formations, depths, dates, and type of equipment used.

HARRY N. STANSBURY
Box 2859
Dallas, Texas

1. The mechanical feasibility and economic necessity of dually completing oil wells at comparable depths, pressures, and other factors as are involved in the Phillips Fonso No. 1.

2. Availability and adequacy of equipment, that which was established in the records before the Commission, to prevent intersone communication and to prevent waste at comparable depths, pressures, and other factors as are involved in the Phillips Fonso No. 1.

3. The successful history of Atlantic Refining Company in dually completing oil wells.

4. Confiscatory and arbitrary nature of the Commission's order in this action as based upon antiquated ideas and notions in light of scientific progress, proven equipment available and historical background of dually completed oil-oil wells.

J. J. [illegible]
McClintic Building
Midland, Texas

1. Economic necessity of dually completing the Phillips Fonso

Well No. 1.

2. The imprudent aspects of twinning the Phillips Ponso No. 1.

3. The mechanical feasibility of dually completing the Phillips Ponso No. 1.

4. Reservoir engineering problems and practices in fields in West Texas and New Mexico as establishing the soundness of dually completing Phillips Ponso Well No. 1 from the standpoint of conservation.

M. E. MASSEY
P. O. Box 1152
Gladewater, Texas

1. The successful history, the nature and results of dually completing oil-oil wells in the Dollarhide Field in West Texas, including all reservoirs therein.

2. The mechanical feasibility of dually completing the Phillips Ponso Well No. 1 and the safeguards against intersone communication.

3. Dually completing the Phillips Ponso will not result in waste.

JACK TANNER
Phillips Petroleum Company
Bartlesville, Oklahoma

1. Proper safeguards that will prevent waste, that may be used and employed in any Commission order, and if enforced will prevent intersone communication in dually completed oil-oil wells.

2. The equipment available for use which Phillips Petroleum Company offers to use, that will prevent waste in the Phillips Ponso well when either zone is being produced.

3. Successful history of dually completed oil wells in Oklahoma.

4. The mechanical feasibility of dual oil-oil wells at comparable depths, pressures, and other factors as involved in the Phillips Ponso No. 1 application.

5. Availability of methods to detect intersone communication and safeguards to prevent intersone communication.

6. The confiscatory nature of the Commission's order as established by the industrial acceptance of dual oil-oil completions, the proven soundness of the equipment available, and in view of the non-feasibility of twinning the Phillips Ponso No. 1.

ED WASHBURN
Phillips Petroleum Company
Bartlesville, Oklahoma

1. The production history of Wolfcamp wells offsetting the Phillips Fonso No. 1, showing the economic necessity for dually completing the Phillips Fonso No. 1 and the confiscatory nature of the Commission's order.

2. The successful history of dual oil-oil wells in the State of Texas.

3. The economic necessity for dually completing the Phillips Fonso No. 1 and the relationship of the same to the confiscatory nature of the Commission's order.

JACOB L. WILLIAMS
Phillips Petroleum Company
Midland, Texas

Reservoir characteristics of fields of West Texas and New Mexico as related to the Phillips Fonso No. 1.

Jason W. Kellahin
P. O. Box [illegible]
Santa Fe, New Mexico

E. H. Foster
Thomas M. Blume
C. J. Roberts
501 First National Bank Bldg.
P. O. Box 1751
Amarillo, Texas

ORIGINAL SIGNED BY
C. J. ROBERTS
Of Counsel

Attorneys for Phillips Petroleum Company

A copy of the foregoing Notice has been delivered to the Oil Conservation Commission of the State of Oklahoma and to its members, to the Magnolia Petroleum Company, to the Skelly Oil Company, and to the Shell Oil Company, by depositing a copy thereof to each in the United States Post Office at Amarillo, Texas, with proper postage, addressed to counsel for each, respectively, as follows:

Mr. Willard F. Kitts and
Mr. Mel T. Yost
P. O. Box 871
Santa Fe, New Mexico

Mr. Ross Madole
P. O. Box 900
Dallas, Texas

Mr. H. C. Kerr
P. O. Box 1690
Tulsa, Oklahoma

Mr. Paxton Howard
P. O. Box 1909
Midland, Texas

A copy of the foregoing Notice has been delivered to resident counsel for each party as follows:

Seth & Montgomery
Santa Fe, New Mexico

Mr. Willard F. Kitts and
Mr. Hal T. Yost
Santa Fe, New Mexico

8M 55-2 Mid (6-47)

SHELL OIL COMPANY

MIDLAND AREA

MAILING ADDRESS
P. O. BOX 1509
MIDLAND, TEXAS

GENERAL OFFICES
PETROLEUM BUILDING
MIDLAND, TEXAS

September 24, 1954

Mr. Hawley C. Kerr
P. O. Box 1650
Tulsa, Oklahoma

Mr. Willard F. Kitts and
Mr. Mel T. Yost
P. O. Box 871
Santa Fe, New Mexico

In Re: Phillips Petroleum Company v. Oil Conservation Commission, et al - No. 11422, In the District Court of Lea County, New Mexico.

Gentlemen:

Herewith I enclose to each of you a copy of the Objections of Shell Oil Company to the Interrogatories propounded to it by Phillips Petroleum Company. Hearing on the said Objections has been set for 10 a.m. October 13, 1954 in Judge Brand's office at Hobbs, New Mexico.

Very truly yours,

Richard L. Hughston

Richard L. Hughston, Attorney

RLH:AW
Enc.

IN THE DISTRICT COURT OF LEA COUNTY

STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY, Plaintiff,	)	
v.	)	No. 11422
OIL CONSERVATION COMMISSION OF NEW MEXICO, ET AL, Defendants.	)	

OBJECTIONS BY SHELL OIL COMPANY TO INTERROGATORIES PROPOUNDED TO IT BY PHILLIPS PETROLEUM COMPANY.

Defendant Shell Oil Company objects to the interrogatories propounded to it by Phillips Petroleum Company as follows:

1. It objects to each of the interrogatories separately as calling for matter that is immaterial and irrelevant to the issues of this case. How many dually completed wells Shell Oil Company owns and operates throughout the United States and Canada, their location, their bottom hole pressures, their depths, the nature of their crudes, whether any of them was dually completed before any other well in the field where it is located was so completed, or before offsetting wells were dually completed, or whether in some particular field in some State other than New Mexico Shell Oil Company did not oppose dual completions is wholly irrelevant as to whether a dual completion is necessary to prevent, or will tend to cause, waste at the location in the Denton Field in Lea County, New Mexico where Phillips Petroleum Company asked permission to dually complete the well involved in this case, and can at most show that Shell Oil Company has not in every instance opposed oil-oil dual completions. Without going into all of the circumstances surrounding each well that Shell Oil Company has caused to be dually completed, the said evidence would be empty statistics and of no relevancy whatsoever. If the court were to undertake to go into the circumstances surrounding each of such wells, the trial would be unduly prolonged and the court would be trying many

matters instead of one. There are other and more direct ways of the case being tried, ways that would not involve the gathering of irrelevant data and that would not be so unneces sarily expensive and time consuming to this defendant.

2. It objects to each of interrogatories 11, 23, 24, 26, 28, 30, 33, 34 and 36 separately as calling for a matter of opinion or conclusion.

3. It objects to each of interrogatories 17, 18, 25, 27, 29, 32, 35, 37, 41, 45, 49, 51 and 55 separately as calling for a matter of public record, the best evidence of which is the record itself which is as available to Phillips Petroleum Company as it is to Shell Oil Company.

4. It objects to each of interrogatories 17 to 22, inclusive, separately, because it calls for information concerning a field in which Shell Oil Company does not operate and as to which it has only hearsay information.

5. It objects to each of interrogatories 5 to 16, inclusive, separately, as being unnecessarily annoying and expensive in that each of them requires it to assemble information as to all its wells and regardless of whether conditions affecting them were similar to those affecting the well in the Denton Field involved in this suit.

WHEREFORE, defendant Shell Oil Company prays the court to set a time for hearing these objections and that upon such hearing each and all of them be sustained.

PAYTON HEARD
RICHARD L. BURGESS
By Richard L. Burgess
Richard L. Burgess
P. O. Box 1509
Midland, Texas

SETH & MONTGOMERY
111 San Francisco Street
Santa Fe, New Mexico

Attorneys for Defendant
Shell Oil Company

TO PHILLIPS PETROLEUM COMPANY:

You are hereby notified that Judge John R. Brand has fixed 10 a.m. on October 13, 1954, at his office in Hobbs, New Mexico, as the time and place for hearing the foregoing objections.

Richard L. Houghton
Attorney for Shell Oil Company

CERTIFICATE OF SERVICE

I hereby certify that on the 24th day of September, 1954 copy of the foregoing objections by Shell Oil Company to interrogatories propounded to it by Phillips Petroleum Company was served upon C. J. Roberts, attorney for said Phillips Petroleum Company by placing a copy of same in the United States Post Office at Midland, Texas, duly stamped and addressed to him at 501 First National Bank Building, P. O. Box 1751, Amarillo, Texas.

Richard L. Houghton
Attorney for Shell Oil Company

Shell Oil Company plans to call as witnesses in the case of Phillips vs. Oil Conservation Commission, Lea County, the following persons who will testify on the subjects indicated:

E. W. Nestor, Hobbs, New Mexico, who will testify on the commercial possibility of the Wolf Camp Reservoir on the Fort lease in the Denton field; also as to waste resulting from dual completion due to number and expense of workovers and possible communication between different reservoirs and greater expense and difficulties attendant to artifically lifting such wells.

B. O. Carlson, Hobbs, New Mexico, and C. A. Hull and R. P. Moscrip of Midland, Texas, who will testify concerning the number and expense of workovers on dually completed wells and possible communication between different reservoirs and waste resulting therefrom and greater expense and difficulties attendant to artifically lifting such wells.

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

August 23, 1954

COPY

Clerk of the District Court
Lea County
Lovington, New Mexico

Re: Phillips Petroleum Company
vs.
Oil Conservation Commission
of New Mexico et al. Case No. 11422

Dear Sir:

Enclosed please find the defendant's list of witnesses to be used at the trial of this case, which I ask you to kindly file.

Very truly yours,

William F. Kitts
Co-counsel for Oil Conservation
Commission

WFK/ir

enclosure

COPY

X-6740

MAGNOLIA PETROLEUM COMPANY

P. O. Box 900, Dallas 21, Texas

MAIN OFFICE OCC

AUG 16 AM 1:35

LEGAL DEPARTMENT

August 16, 1954

Hon. John R. Brand
District Judge
Fifth Judicial District of New Mexico
P. O. Box 1176
Hobbs, New Mexico

Re: Phillips Petroleum Company v.
Oil Conservation Commission,
#11422, Lea County, New Mexico

Dear Judge Brand:

With reference to your letter of August 13, 1954, addressed to Mr. W. F. Kitts and copy of which I received, concerning the above styled case, I would like to advise that I will be glad to consent to a postponement of said case.

Yours very truly,

Ross Madole

Ross Madole

RM:pb

cc: Mr. W. F. Kitts, Oil Conservation Commission
Mr. Paxton H. Howard, Shell Oil Co.
Mr. Hawley C. Kerr, Skelly Oil Co.
Mr. Jason Kellahin, Atty., Santa Fe, N. M.

MAIN OFFICE OCC

SKELLY OIL COMPANY

TULSA 2, OKLAHOMA

August 16, 1954

Re: Phillips Petroleum Company v.
Oil Conservation Commission
et al, No. 11422, District Court,
Lea County, New Mexico.

Seth & Montgomery
Attorneys at Law
111 San Francisco Street
Santa Fe, New Mexico

Gentlemen:

On August 6, 1954 Mr. Hawley C. Kerr forwarded to you copies of the answer to be filed in the above styled and numbered case on behalf of Skelly Oil Company. Mr. Kerr is now on vacation and I am therefore forwarding a copy of a letter written by John R. Brand, District Judge of Hobbs, New Mexico, to Mr. W. F. Kitts, Co-Counsel of the Oil Conservation Commission, in which Judge Brand states that he does not want to change the trial date from October 20 unless this change is concurred in by opposing counsel.

Will you please advise Judge Brand whether or not you concur in a change of the trial date. I believe that setting the trial time up until later in the year would be suitable to Mr. Kerr.

Yours very truly,

GMP:dh

Gayle M. Pickens

cc: Mr. W. F. Kitts
Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Mr. Ross Madole
Magnolia Petroleum Company
P. O. Box 900
Dallas 21, Texas

cc: Mr. Paxton H. Howard
Shell Oil Company
P. O. Box 1509
Midland, Texas

Mr. Jason Kellahin
Attorney at Law
P. O. Box 361
Santa Fe, New Mexico

August 11, 1954

Re: No. 11422 - Phillips Petroleum Company v. Oil Conservation Commission of the State of New Mexico - District Court of Lea County, N. M.:

District Clerk
Lea County
Lovington, N. M.

Dear Sir:

On August 6, 1954, we forwarded to you for filing plaintiff's notice of witnesses in the above styled cause, but the file number thereon was erroneously stated to be 11,442. To correct that error and to provide for a proof of service in accordance with Rule 5 (f) of the New Mexico Rules of Civil Procedure, we enclose herewith a corrected copy, with proof of service for filing.

Yours very truly,

ORIGINAL SIGNED BY
C. J. ROBERTS

CJR:mm

C. J. ROBERTS

Enc.

cc Mr. T. H. Foster

Mr. Jason W. Kellahin
P. O. Box 361
Santa Fe, N. M.

Mr. Willard B. Pitts and
Mr. Joel B. Post
P. O. Box 871
Santa Fe, N. M.

Mr. Ross Rodgers
P. O. Box 510
Hobbs, New Mexico

Mr. H. C. Kerr
P. O. Box 1650
Tulsa, Oklahoma

Mr. Paxton Howard
P. O. Box 1509
Midland, Texas

Seth Montgomery
Santa Fe, N. M.

Yost + Rtg 3

BM 55-2 MID (6-47)

SHELL OIL COMPANY

MAIN OFFICE OCC

MIDLAND AREA

MAILING ADDRESS
P. O. BOX 1509
MIDLAND, TEXAS

1954 AUG 20 AM 8:16

August 17, 1954

GENERAL OFFICES
PETROLEUM BUILDING
MIDLAND, TEXAS

Honorable John R. Brand
District Judge
P. O. Box 1176
Hobbs, New Mexico

In Re: Phillips Petroleum Company v.
Oil Conservation Commission,
No. 11422, Lea County, New Mexico.

Dear Judge Brand:

It will be agreeable to me for this case to be reset as requested in Mr. W. F. Kitts' letter to you of August 4, 1954. If a resetting is effected, please advise me thereof.

Very truly yours,

Paxton Howard

Paxton Howard, General Attorney

PH:AW

cc: Mr. W. F. Kitts, Oil Conservation Commission
Mr. Ross Madole, Magnolia Petroleum Company
Mr. Hawley C. Kerr, Skelly Oil Company
Mr. Jason Kellahin, Atty., Santa Fe, N. M.

IN THE DISTRICT COURT OF LEA COUNTY

STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY, Plaintiff, vs. OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, COMPOSED OF Hon. Edwin L. Mechem, Governor and Chairman, Hon. E. S. Walker, Commissioner of Public Lands, Member, and Hon. Richard Spurrier, State Geologist and Secretary, Defendants.	)	No. 11482

ENTRY OF APPEARANCE

We, the undersigned, hereby enter our appearance as counsel for the Defendants in the above entitled and numbered cause.

Melvin T. Yost,

Willard F. Kitts,

Santa Fe, New Mexico,

Attorneys for the Oil Conservation Commission of New Mexico

MAGNOLIA PETROLEUM COMPANY

A SOCONY-VACUUM COMPANY

1954 JUN 10 AM 8:18 OCC

LEGAL DEPARTMENT

P. O. BOX 900
DALLAS 21, TEXAS

EARL A. BROWN
GENERAL COUNSEL
ROY C. LEDBETTER
RAYMOND M. MYERS
CHAS. B. WALLACE
R. T. WILKINSON, JR.
FRANK C. BOLTON, JR.
JACK VICKREY
SAM H. FIELD
ROSS MADOLE
FLOYD B. PITTS
ROY L. MERRILL
ALBERT E. AIKMAN
JACK E. EARNEST
ASSISTANTS

June 8, 1954

Mr. Willard F. Kitts
c/o New Mexico Oil Conservation Commission
125 Mabry Hall, Capitol Building
Santa Fe, New Mexico

Re: Phillips Petroleum Company v. Oil Conservation Commission of the State of New Mexico, etc., No. 11422 in the 5th Judicial District Court, Lea County, New Mexico

Dear Mr. Kitts:

Upon my return from Santa Fe I was served with a "Notice to Adverse Party" by Judge Foster. A copy of my Motion to Dismiss and Answer was sent to you and Mr. Yost.

I still think that the Commission should file a motion to dismiss. I do not believe that we are a party to the suit simply by service of such notice. The rules of practice and procedure that are prescribed for the district courts are applicable, and we feel that we should be made a party defendant by Phillips Petroleum Company amending its petition. I have just talked to Paxton Howard, with Shell, and he prefers that you file such a motion. There is some question in my mind of whether or not I have any status as a party so as to urge my motion to dismiss.

It has been my thought that Judge Foster did not want us a party to the suit and that that was the reason we

were left out initially.

Kindest personal regards.

Yours very truly,

Ross Madole

Ross Madole

RM:pb

cc: Mr. Paxton H. Howard
General Attorney
Shell Oil Company
P. O. Box 1509
Midland, Texas

Mr. Hawley C. Kerr
General Attorney
Skelly Oil Company
P. O. Box 1650
Tulsa 2, Oklahoma

July 6, 1954

COPY

The Clerk of the District Court
Lea County Court House
Lovington, New Mexico

RE: Phillips Petroleum Co.
vs. Oil Conservation
Commission of New Mexico

Dear Sir:

I enclose herewith the Entry of Appearance of Mr. Yost and myself as counsel for defendant in this cause, which I ask you to enter in the file of this case.

Thank you very much.

Very truly yours,

W. B. Mitts

WBM:nr

Enc.

July 7, 1954

Mr. Ross Madole, Legal Department
Magnolia Petroleum Company
P. O. Box 900
Dallas 21, Texas

RE: Phillips Petroleum Company vs.
Oil Conservation Commission,
No. 11422, Lea County, New Mexico

Dear Mr. Madole:

Please excuse my very belated reply to your letter of June 8, 1954. Although Mel Yost and I have both been serving as part-time attorneys for the Commission, it was only this week that we have been committed to a definite arrangement as to what days we would spend in the Oil Commission office. I am frank to say that in this instance, your letter was simply overlooked. Because of the new arrangement under which Mel Yost and I are now working, I am sure that such an oversight will not be repeated in the future.

As you probably know, Judge Brand has set this matter for trial at Lovington, New Mexico, on July 23, 1954. However, both Phillips and the Commission have requested that this setting be vacated and that a pre-trial conference be held on that same date instead. I feel reasonably confident that Judge Brand will grant our request. I do not know whether you plan to be or wish to be present in the event such a pre-trial setting is made and would like to hear from you in this regard.

We have no intention of waiving any motion to dismiss on the grounds that either Magnolia, Shell or Skelly are indispensable parties. Quite frankly, at this time I am in no way convinced that any of you are indispensable parties, although I believe that all of you are necessary parties within the meaning of the New Mexico statutes. However, a motion to dismiss for failure to join an indispensable party, being jurisdictional, can be raised at any time and I have told Phillips, through Jason Kellahin, that we still plan to make such a motion if we feel that it has any merit. I am presently working on an appellate brief in another case where this

question of indispensable parties is involved, so I feel that my thinking on this question is fairly clear at the moment, and should be even further clarified by the time I finish my brief at the end of this week.

Actually, what Mel Yost and I plan to do is to thrash out this whole question of indispensable parties and necessary parties when and if we are given a pre-trial conference by Judge Brand. I will contact you immediately as soon as I learn of Judge Brand's disposition of our request.

Kindest personal regards.

Very truly yours,

W. F. Kitts

WFK:BP

CC: Mr. Paxton B. Howard
General Attorney
Shell Oil Company
P. O. Box 1509
Midland, Texas

Mr. Hawley C. Kerr
General Attorney
Skelly Oil Company
P. O. Box 1650
Tulsa 2, Oklahoma

COPY

July 7, 1954

Hon. John R. Brand
District Judge
Lea County Court House
Lovington, New Mexico

RE: Phillips Petroleum Company vs.
Oil Conservation Commission,
No. 11422, Lea County

Dear Judge Brand:

I have received a copy of the notice of setting of this cause for trial on Friday, July 23rd in Lovington. As counsel for the Oil Conservation Commission, Melvin T. Yost and I respectfully request that this trial setting be vacated and that the matter be set for pre-trial on that same date, if at all possible.

We earnestly believe that a pre-trial conference would be most beneficial to all parties concerned in this case. There are several rather complicated procedural and legal questions under the Oil Conservation Act which should be ironed out before this matter comes to trial, and we believe that much time will be saved should some of these matters be determined and agreed upon at pre-trial. We are also confident that the plaintiff and possible intervenors, as well as the Commission as defendant, will be willing to cooperate to the extent of stipulating as to a large number of the pertinent fact questions involved.

I understand that the plaintiff, Phillips Petroleum Company, has made a similar request of the Court, and we therefore ask your favorable consideration of this matter.

Very truly yours,

Willard F. Kitts,
Co-Counsel for the Oil Conservation
Commission of New Mexico

WFK:BP

DASHKO BUILDING

TELEPHONE 3-2195

JOHN R. BRAND
DISTRICT JUDGE
FIFTH JUDICIAL DISTRICT
STATE OF NEW MEXICO

P. O. BOX 1176
HOBBS, NEW MEXICO

10 JULY 1956

MR. JASON W. KELLAHIN
ATTORNEY AT LAW
LAUGHLIN BUILDING
P. O. BOX 361
SANTA FE, NEW MEXICO

MR. WILLIAM F. [illegible]
ATTORNEY AT LAW
[illegible] EAST PALACE AVENUE
P. O. BOX [illegible]
SANTA FE, NEW MEXICO

[illegible], GILBERT, [illegible]
ATTORNEYS AT LAW
SANTA FE, NEW MEXICO

RE: PHILLIPS PETROLEUM CO.
VS.
OIL CONSERVATION COMMISSION
OF NEW MEXICO, ET AL.
No. 11,420

GENTLEMEN:

THE TRIAL SETTING OF THIS MATTER IS HEREBY VACATED, AND A PRE-TRIAL CONFERENCE WILL BE HELD AT [illegible] P.M., BEFORE THE UNDERSIGNED, IN LOVINGTON.

Very truly yours,

John R. Brand

JRB/jo

MAGNOLIA PETROLEUM COMPANY

A SOCONY-VACUUM COMPANY

LEGAL DEPARTMENT

P. O. BOX 900
DALLAS 21, TEXAS

EARL A. BROWN
GENERAL COUNSEL
ROY C. LEDBETTER
RAYMOND M. MYERS
CHAS. B. WALLACE
R. T. WILKINSON, JR.
FRANK C. BOLTON, JR.
JACK VICKREY
SAM H. FIELD
ROSS MADOLE
FLOYD B. PITTS
ROY L. MERRILL
ALBERT E. AIKMAN
JACK E. EARNEST
ASSISTANTS

August 2, 1954

Mr. Willard F. Kitts
Attorney at Law
P. O. Box 664
Santa Fe, New Mexico

Re: Phillips Petroleum Company v. Oil Conservation Commission of the State of New Mexico, etc., No. 11422, 5th Judicial District Court, Lea County, New Mexico

Dear Willard:

I enjoyed seeing you again at the pre-trial conference of the above styled suit. I believe that we are in excellent position in view of the Court.

Will you please forward to me, as soon as possible, a copy of the record so that I may compare the same to see that nothing has been omitted. I would like very much to have this transcript before I am served with a copy of the witnesses and their proposed testimony which is to be furnished by Phillips sometime this week.

Kindest personal regards.

Yours very truly,

Ross Madole

Ross Madole

RM:pb

VIA AIRMAIL

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

August 4, 1954

C
O
P
Y

Honorable John R. Brand
District Judge
Lea County Court House
Lovington, New Mexico

Re: Phillips Petroleum Company vs.
Oil Conservation Commission,
#11422, Lea County, New Mexico

Dear Judge Brand:

On behalf of the Oil Conservation Commission, I would like to request that the tentative setting for the trial of this case on October 20, 1954, be vacated. The reason for this request is that the regular monthly hearing of the Oil Conservation Commission commences that day in Santa Fe. This meeting will probably continue until October 22, 1954. Although normally it is not imperative that both Melvin Yost and I be present at these meetings, one of us has to be there. In addition, due to the importance of the subject case now in your court, both of us want very much to participate in the trial as counsel for the Commission.

Rule 503 of the Rules and Regulations of the Oil Conservation Commission states that the Commission "shall meet between the 15th and 20th of each month at open hearing for the purpose of determining the amount of oil to be produced from all oil pools for the following calendar month." These hearings are scheduled well in advance and, in fact, the schedule of monthly hearings for 1954 was drawn up and promulgated in November of last year.

Monthly hearings of the Commission are also scheduled for November 17th and 19th and December 16th to 18th of this year. Any other setting date will be agreeable to the Commission.

Very truly yours,

W. F. KITTS,
Co-Counsel for Oil Conservation Commission

WFK/ir

cc: Mr. Ross Madole
Legal Department
Magnolia Petroleum Company
P. O. Box 900 - Dallas 21, Texas

Mr. Paxton H. Howard, General Attorney
Shell Oil Company
P. O. Box 1509
Midland, Texas

Mr. Hawley C. Kerr
General Attorney
Skelly Oil Company
P. O. Box 1650
Tulsa 2, Oklahoma

Mr. Jason Kellahin
Attorney-at-Law
Box 361
Santa Fe, New Mexico

August 7, 1954

Mr. Ross Madole
Attorney at Law
Magnolia Petroleum Co.
Magnolia Building
Dallas, Texas

RE: Phillips Petroleum Co.
v. Corporation Commission

Dear Ross:

Enclosed is a copy of the record before the Commission in this case. Would you kindly return it to the Commission within ten days of its receipt?

Best regards,

W. F. Kitts

WFK:BP

Enc.

DASHKO BUILDING

TELEPHONE 3-2195

JOHN R. BRAND
DISTRICT JUDGE
FIFTH JUDICIAL DISTRICT
STATE OF NEW MEXICO
P. O. BOX 1176
HOBBS, NEW MEXICO

MAIN OFFICE OCC
AUG 16 11 9:07

13 August 1954

Mr. W. F. Kitts
Co-Counsel
Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Re: Phillips Petroleum Company vs.
Oil Conservation Commission,
#11422, Lea County, New Mexico

Dear Mr. Kitts:

I am just getting around to answering your letter of August 4 since I have been in Albuquerque for the past 12 days trying cases there.

I regret that you were not aware at Lovington that the date of October 20 conflicted with the meeting of the Conservation Commission but I do not feel like granting your request for change in date unless concurred in by opposing counsel to whom a copy of this letter is going for attention and reply.

Yours very truly,

John R. Brand

JOHN R. BRAND
District Judge

JRB/j

cc: Mr. Ross Madole, Magnolia Petroleum Co.
Mr. Paxton H. Howard, Shell Oil Co.
Mr. Hawley C. Kerr, Skelly Oil Co.
Mr. Jason Kellahin, Atty., Santa Fe, N. M.

MAIN OFFICE OCC

SHELL OIL COMPANY

MIDLAND AREA

MAILING ADDRESS
P. O. BOX 1509
MIDLAND, TEXAS

MAY 9 9:31

GENERAL OFFICES
PETROLEUM BUILDING
MIDLAND, TEXAS

May 7, 1954

Yeam

Yost

Mr. Melvin Yost
Attorney at Law
New Mexico Oil Conservation Commission
125 Mabry Hall
Capitol Building
Santa Fe, New Mexico

In Re: Phillips Petroleum Company v. Oil Conservation Commission of the State of New Mexico, etc., No. 11422 in the Fifth Judicial District Court, Lea County, New Mexico.

Dear Sir:

We have received copies of the letters of Mr. Ross Maiole, of Magnolia, and of Mr. Hawley C. Horr, of Skelly, regarding the above captioned case.

Like Magnolia and Skelly, we feel that the Commission's Order in this matter should be sustained and we will be glad to help in the defense of the Order.

We also feel that under the Statute Magnolia, Skelly and Shell should have been made parties to this appeal and should have been given notice thereof. We do not wish to intervene in the action but would like to be advised as to your plans regarding either asking that the appeal be dismissed or requiring that the said three companies be made parties to the action.

We would also like to be kept advised as to developments in the case so that we may have ample time within which to keep in such manner as we see fit in behalf of the Commission's Order.

Very truly yours,

Barton Howard

BH:AM

cc: Mr. [illegible]
[illegible]
[illegible]
cc: Mr. [illegible]
[illegible]
[illegible]

Please return for
Case file — Case 5556

NR

MAGNOLIA PETROLEUM COMPANY

A SOCONY-VACUUM COMPANY

LEGAL DEPARTMENT

P. O. BOX 900
DALLAS 21, TEXAS

OFFICE OCC
1954 APR 23 AM 9:22

EARL A. BROWN
GENERAL COUNSEL
ROY C. LEDBETTER
RAYMOND M. MYERS
CHAS. B. WALLACE
R. T. WILKINSON, JR.
FRANK C. BOLTON, JR.
JACK VICKREY
SAM H. FIELD
ROSS MADOLE
FLOYD B. FITTS
ROY L. MERRILL
ALBERT E. AIKMAN
JACK E. EARNEST
ASSISTANTS

April 22, 1954

Mr. Melvin Yost
Attorney at Law
New Mexico Oil Conservation Commission
125 Mabry Hall, Capitol Building
Santa Fe, New Mexico

Re: Phillips Petroleum Company v. Oil Conservation Commission of the State of New Mexico, etc., No. 11422 in the 5th Judicial District Court, Lea County, New Mexico

Dear Mr. Yost:

Magnolia Petroleum Company has actively participated in the trial of the application to dually complete Fonzo No. 1 well by Phillips, and likewise protested the application upon rehearing. The denial by the Commission of this application is the basis of the appeal by Phillips in the above styled suit. It is my interpretation of Section 69-223 of the New Mexico Statutes, as amended, that Magnolia Petroleum Company, Shell Oil Company, and Skelly Oil Company were necessary parties to this appeal. This section, among other things, provides that:

> "Notice of such appeal shall be served upon the adverse party or parties and the commission in the manner provided for the service of summons in civil proceedings."

Certainly, by virtue of our active participation in the trial of the case before the Commission by the introduction of affirmative evidence and the cross-examination of Phillips' witnesses, we effectively made ourselves "adverse parties" within the meaning of the statute.

We certainly desire to assist the Commission in every way possible to uphold the decision of the Commission. To effectively do this we feel that we should be made a party to the suit by Phillips, without the necessity of filing application for intervention under Rule 24 of the New Mexico Rules for the District Courts. It is therefore our suggestion that, under Rule 12 of said rules above referred to, a motion to dismiss be filed by the Commission for failure to join Magnolia, Shell, and Skelly in the suit as provided in Rule 12 (7), as we feel that we were necessary parties under Rule 19.

I am taking the liberty of sending a copy of this letter to the attorneys for Shell and Skelly, and would appreciate your advising us as soon as you can whether or not you plan on filing such a motion so that we can assist you in the presentation of such a motion and in the ultimate defense of this suit. In my opinion it is important as a matter of strategy to require Phillips to bring us into the suit rather than be compelled to come in by intervention. In the event additional testimony is offered by Phillips, the Commission would be dependent upon Magnolia, Skelly, and Shell to offer rebutting testimony and proper expert advice as to the cross-examination of Phillips' experts.

We feel that this appeal should be defended to the utmost, inasmuch as the whole policy of the Commission to prohibit dual oil-oil completions in the State of New Mexico where danger of injury to one of the reservoirs is present is now under attack by Phillips. There has always been in my mind some question as to whether or not these particular applications were being used simply as a guinea pig for future applications in other fields. It is my opinion that the board's order can be successfully defended, and should be defended vigorously.

Kindest personal regards.

Yours very truly,

Owen O'Neill

Owen O'Neill

OO'N:pb

cc's: Mr. Paxton H. Howard
Attorney at Law
Shell Oil Company
P. O. Box 1509
Midland, Texas

Mr. George W. Selinger
Attorney at Law
Skelly Oil Company
P. O. Box 1650
Tulsa, Oklahoma

Please return for
Case file - Case 556

N.R

MAIN OFFICE OCC

SKELLY OIL COMPANY

TULSA 2, OKLAHOMA

April 23, 1954

RE: Phillips Petroleum Company v. Oil Conservation Commission of the State of New Mexico, etc., #11422
5th Judicial District Court
Lea County, New Mexico

GENERAL ATTORNEY:
HAWLEY C. KERR
ASS'T. GENERAL ATTORNEY:
GAYLE M. PICKENS
ATTORNEYS:
JAMES E. HARA
WILLIAM R. HORKEY
FRED D. LEONARD
GEORGE W. MORROW
ROBERT S. RIZLEY
HORACE B. SMITH

Mr. Melvin Yost
Attorney at Law
New Mexico Oil Conservation Commission
125 Mabry Hall, Capitol Building
Santa Fe, New Mexico

Dear Sir:

Our Mr. George Selinger has requested me to write you concerning your recent conversation with him relative to whether or not our company is willing to assist the Conservation Commission of New Mexico in the above appeal proceedings in upholding the Commission's order denying Phillips' application for permission to dually complete certain of its oil wells in the Denton Field, Lea County, New Mexico.

Concurring and joining in the position taken and recommendations set forth in Mr. Ross Madole's letter to you on behalf of Magnolia, dated April 22, Skelly Oil Company desires to cooperate with and be of assistance to you in the above case in defending and upholding the Commission's order.

Please advise us as to whether or not you plan on filing the motion to dismiss as suggested in Mr. Madole's letter, or as to what steps, if any, you have to suggest in bringing us in as a party to the appeal proceedings. We shall be pleased to have your suggestions as to how we may be of assistance to you in the case.

Yours very truly,

Hawley C. Kerr

HCK/GPE

Cc Mr. Ross Madole
Box 900, Dallas 1, Texas
Mr. Paxton Howard
Shell Oil Company, Box 1509, Midland, Texas
John L. Freeman
George Selinger

GILBERT, WHITE AND GILBERT
ATTORNEYS AT LAW
SANTA FE, NEW MEXICO

IN THE DISTRICT COURT OF LEA COUNTY
STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY, Plaintiff,	)	
vs.	)	No. 11, 422
OIL CONSERVATION COMMISSION OF NEW MEXICO, ET AL. Defendants.	)	

NOTICE OF WITHDRAWAL

Comes now L. C. White, attorney of record for the Oil Conservation Commission of the State of New Mexico in the above entitled cause, and withdraws as their attorney of record.

Attorney for the Oil Conservation Commission of the State of New Mexico.

CERTIFICATE

I hereby certify that I have this 15th day of July, 1954, mailed a copy of the foregoing to Mr. Willard F. Kitts, Attorney at Law, 116 East Palace Avenue, Santa Fe, New Mexico, and to Mr. Jason W. Kellahin, Attorney at Law, Laughlin Building, Santa Fe, New Mexico, they being the attorneys of record for the plaintiff herein.

Attorney for the Oil Conservation Commission of the State of New Mexico.

JASON W. KELLAHIN
ATTORNEY AT LAW
LAUGHLIN BUILDING
P. O. BOX 1651
SANTA FE, N. M.

October 5, 1954

Mr. Melvin Yost and Mr. W. F. Kitts
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Mr. Paxton Howard
General Attorney, Shell Oil Co.
P. O. Box 1509
Midland, Texas

Mr. Ross Madole
Legal Dept., Magnolia Petroleum Co.
P. O. Box 900
Dallas, Texas

Mr. Hawley C. Kerr
General Attorney, Skelly Oil Co.
P. O. Box 1650
Tulsa 2, Oklahoma

Seth and Montgomery
111 San Francisco Street
Santa Fe, New Mexico

Re: Phillips Petroleum Co. v.
Oil Conservation Commission
No. 11422, Lea County

Gentlemen:

Enclosed is a copy of plaintiff's motion to dismiss the above captioned cause, which has been filed this date, together with copy of the order of dismissal which has been submitted to the Court.

I advised District Judge John R. Brand today that the motion to dismiss would be filed, and he advised me that it would be granted.

Yours very truly,

Jason W. Kellahin

Jason W. Kellahin
Attorney for Plaintiff

JWK/my
Encls.

STATE OF N. MEXICO COUNTY OF L.A.

IN THE DISTRICT COURT

PHILLIPS PETROLEUM COMPANY

Plaintiff

vs No. 11422

OIL CONSERVATION COMMISSION OF NEW MEXICO, et al.,

Defendants

M O T I O N

Comes now Phillips Petroleum Company, plaintiff in the above entitled cause, and moves this Court for an order dismissing the complaint filed herein, with prejudice.

/S/ JASON W. KELLAHIN
Attorney for Phillips Petroleum Company, Plaintiff

CERTIFICATE OF SERVICE

I hereby certify that a copy of the above and foregoing motion has been served upon all parties of record in the above entitled cause by mailing a copy thereof to attorneys of record, postage prepaid, this 5th day of October, 1954

/S/ JASON W. KELLAHIN
Jason W. Kellahin Attorney at Law
Santa Fe, New Mexico

STATE OF NEW MEXICO COUNTY OF LEA

IN THE DISTRICT COURT

SHELLTEX [illegible] COMPANY, Plaintiff	)	
vs.	)	No. 11422
OIL CONSERVATION COMMISSION OF NEW MEXICO, et al., Defendants	)	

O R D E R

This cause coming on to be heard on the motion of plaintiff for leave of Court to dismiss the complaint filed herein with prejudice, and the Court being fully advised in the premises, and good cause therefor appearing,

IT IS THEREFORE ORDERED That plaintiff's complaint be, and the same hereby is dismissed, with prejudice.

District Judge

SUMMONS

IN THE DISTRICT COURT, COUNTY OF LEA, STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY

....., Plaintiff

VS.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, COMPOSED OF Hon. Edwin L. Mechem, Governor and Chairman, Hon. E. S. Walker, Commissioner of Public Lands, Member, and Hon. Richard R. Spurrier, State Geologist and Secretary, Defendants

NO. 11422

THE STATE OF NEW MEXICO

TO: Oil Conservation Commission of the State of New Mexico,

Hon. Edwin L. Mechem, Chairman

Hon. E. S. Walker, Member

Hon. Richard R. Spurrier, Secretary

Greeting: Defandants

You are hereby commanded to appear before the Fifth Judicial Court District of the State of New Mexico, sitting within and for the County of Lea, that being the county in which the complaint herein is filed, within thirty days after service of this summons, then and there to answer the complaint of Phillips Petroleum Company, Plaintiff in the above cause.

You are notified that unless you so appear and answer, the plaintiff will apply to the court for the relief demanded in the complaint together with costs of suit.

WITNESS, the Honorable C. ROY ANDERSON, District Judge of the Fifth Judicial District Court of the State of New Mexico, and the Seal of the District Court of Lea County, this 29th day of December A. D., 1953.

Seal

WM Bouchamp
Clerk of the District Court.

By .....
Deputy.

A statement of the nature of the action in general terms, viz: Complaint Attached

WM Bouchamp
Clerk of the District Court.

By .....
Deputy.

SHERIFF'S RETURN

State of New Mexico,
County of Lea

I, ...
Sheriff of Lea County, New Mexico, do hereby certify that this writ came to hand the

..... day of ....., 19.....

and there was at the time delivered to me

for service herewith ..... cop.....

of this summons and .....cop.....
of the complaint filed therein; that I made service hereon by delivering one copy of this summons and one copy of the complaint herein to each of the within named defendant..... within the said County of Lea, as follows to-wit:

.....

.....
(Name)

on ..... and
(Date of Service)

.....

on .....

.....

FEES FOR SERVICE

Serving writ and return . . . $.....

Mileage . . . . . $.....

Total . . . . . $.....

....., Sheriff

By ....., Deputy

No. .....

IN THE

DISTRICT COURT

LEA COUNTY, NEW MEXICO

PHILLIPS PETROLEUM COMPANY

.....

Plaintiff.....

VS.

OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO,
Et Al

.....

Defendant.....

SUMMONS

Jason W. Kellahin
Attorney at Law
P.O.Box 361
Santa Fe,New Mexico

Attorney..... for Plaintiff.....

AFFIDAVIT OF SERVICE

THE STATE OF NEW MEXICO)
) ss
COUNTY OF LEA)

I, ..., being first duly sworn, on oath, state: That I am a citizen of the United States and over the age of eighteen years, and not a party of said action that I have made service of the within summons in the above-named county and state by delivering a true copy of this summons together with a copy of the complaint, filed in said cause to (each of) the following defendant..... herein named, to-wit:

..... on ....., 19.....

..... on ....., 19.....

..... on ....., 19.....

.....

Subscribed and sworn to before me this..... day of ....., 19.....

.....

.....

In the District Court of San Juan County, The Twelfth
Judicial District of New Mexico

STATE OF NEW MEXICO COUNTY OF SAN

PHILLIPS PETROLEUM COMPANY,
Compleinant

v.

OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO, composed of Hon. Edwin L. Mechem, Governor and Chairman, Hon. E. S. Walker, Commissioner of Public Lands, and Hon. Richard M. Spurrier, State Geologist and Secretary,
Defendants

No. 11422

C O M P L A I N T

Comes now Phillips Petroleum Company, a corporation, organized, created and existing under and by virtue of the laws of the State of Delaware, with a permit to do business and doing business in the State of New Mexico, hereinafter called complainant, and complaining of the Oil Conservation Commission of the State of New Mexico, composed of the Hon. Edwin L. Mechem, Governor of the State of New Mexico, Chairman, Hon. E. S. Walker, Commissioner of Public Lands, Member, and Hon. Richard M. Spurrier, State Geologist of the State of New Mexico and Secretary, hereinafter referred to as Commission, and for cause of action against the Commission alleges:

1.

The complainant, Phillips Petroleum Company, is a corporation organized, created and existing under and by virtue of the laws of the State of Delaware, with a permit to do business and doing business in the State of New Mexico. The Oil Conservation Commission of the State of New Mexico is a statutory body created by virtue of [illegible]

2.

...y be found for the purpose of the service of process, is at ...ta Fe, in ...ta Fe County, State of New Mexico.

3.

The Oil Conservation Commission of the State of New Mexico as constituted is a statutory agency vested with power to limit and prorate production of crude petroleum and natural gas in the State of New Mexico. As a statutory agency it is charged with the proper administration and enforcement of all laws, rules and regulations pertaining to the conservation and proration of oil and gas production, and as such duly constituted agency has exercised its delegated authority in relation to the compliance as hereinafter alleged.

4.

At all times hereinafter alleged, Phillips Petroleum Company has been and still is engaged in the business of producing oil and gas in the State of New Mexico. It is the owner of an oil well known as its Fonso No. 1 Well, located in the NW/4 NW/4 Section 35, Township 14 S, Range 37 E, N.M.P.M. in the Denton field in Lea County, New Mexico, on which it holds a good and valid and subsisting oil and gas lease. As the owner of the Fonso No. 1 Well it is, within the definition of the term owner as used in the Conservation Statutes of the State of New Mexico, vested with the right to drill into and produce oil and gas from the Denton Devonian formation and the Denton Wolfcamp formation which overlies the Denton Devonian formation in the Denton field, and appropriate the production of the oil and gas to its own use.

5.

That the Commission has and by statute is given jurisdiction and authority over all matters relating to the conservation of oil and gas in the State of New Mexico, and of the enforcement of all provisions of the Oil and Gas Conservation Act, and of any other law of the State of New Mexico relative to the conservation of oil and gas, and the Commission has the power to promulgate rules, regulations and orders pertaining to the conservation of oil and gas in the State of New Mexico.

6.

That at all times hereinafter alleged Phillips Petroleum Company has been and still is ... [illegible] ... of the Fonso No. 1 Well ...

of New Mexico. As an oil and gas producer it is and has been and now is adversely affected by a recent order of the Commission with respect to its property and property rights in Cause No. 557 before the Commission and by Orders R-351 and R-351-A issued in Cause No. 557.

7.

Phillips Petroleum Company alleges that on and prior to July 17, 1952, it completed an oil well in the Devonian formation in the Denton field in Lea County, New Mexico, known as its Fonzo No. 1 Well, located in the NW/4 NW/4 Section 35, Township 14 S, Range 37 E, N.M.P.M., Lea County, New Mexico. The well was completed at a plug-back total depth of 12,687 feet. That in completing the well it drilled through the Wolfcamp formation, which overlies the Devonian formation which is reached at a lesser depth. That the Fonzo Well No. 1 is capable of being non-wastefully operated so as to produce both from the Devonian formation and the Wolfcamp formation without the necessity of drilling an additional well to produce oil encountered in the well bore of the Fonzo Well No. 1 in the Wolfcamp formation.

8.

On June 15, 1953, and in compliance with the provisions of Rule 112 of the Commission, Phillips Petroleum Company filed its application requesting permission of the Commission to dually complete its Fonzo Well No. 1 so as to produce oil from both the Devonian and the Wolfcamp formation in the Denton field.

9.

That due notice was given to all interested parties of the application of Phillips Petroleum Company to dually complete its well and thereafter a hearing was held before the Commission in Santa Fe, New Mexico, on July 16, 1953. That on September 4, 1953, the Commission duly entered its Order No. R-351, dated August 28, 1953, denying to Phillips Petroleum Company permission to dually complete its Fonzo Well No. 1.

10.

That in due time after the entry of Order No. R-351 and on September 21, 1953, Phillips Petroleum Company filed with the Commission its petition for a re-hearing in Cause No. 557. On September 28, 1953, the Commission, by its Order No. R-351-A, granted a re-hearing to Phillips Petroleum Company.

11.

That pursuant to the Order of Re-Hearing, a re-hearing was had before the Commission on October 15, 1953. On December 24, 1953, the Commission entered its Order No. R-351-B, dated December 10, 1953, denying Phillips Petroleum Company permission to dually complete its Ponzo No. 1 Well.

12.

That attached hereto and made a part of this complaint and by reference thereto incorporated herein for all purposes, are true and correct copies of the Orders of the Commission R-351 and R-351-B.

13.

Phillips Petroleum Company alleges that by virtue of the issuance and entry of Orders Nos. R-351 and R-351-B, it has exhausted its administrative remedy before the Commission and that it is a person in interest and affected by the Orders, and as such prosecutes its appeal therefrom to this Court.

14.

Phillips Petroleum Company alleges that the action of the Commission in denying to it permission to dually complete its well is unreasonable, arbitrary, confiscatory, illegal, erroneous, and void, and deprives it of its property and a valuable property right without due process of law upon each and all of the grounds and for each and all of the reasons following:

(a) The orders are not supported by the evidence and there is no substantial evidence to support the orders.

(b) The findings of the Commission are vague and indefinite, ambiguous and doubtful, and wholly insufficient to support the orders of the Commission.

(c) That the findings of fact of the Commission are not supported by substantial evidence and are contrary to the evidence, and are not supported by any evidence.

(d) That the testimony offered and exhibits introduced clearly show that the dual completion of the well will not subject such well to operational hazards, that no serious danger of inter-zonal communication exists, and that reservoir conditions are highly favorable to the dual completion of the well as proposed, and that the equipment proposed to be used will offer adequate

adequate protection to all producing horizons, all of which was clearly shown by the testimony and exhibits at the hearings, and that such dual completion will result in the prevention of waste and the protection of correlative rights.

(e) That the orders of the Commission were not entered in accordance with law.

(f) That the orders will require the drilling of an excessive number of wells with attendant risks and economic loss.

15.

That each and all of the grounds of error as above alleged were contained in the petition for rehearing filed with the Commission, and were urged upon the Commission and were acted upon by the Commission at the hearings.

WHEREFORE, premises considered, Phillips Petroleum Company prays that proper process be issued to the New Mexico Oil Conservation Commission of the State of New Mexico, composed of the Hon. Edwin L. Mechem, Governor of the State of New Mexico, Hon. E. S. Walker, Commissioner of Public Lands of the State of New Mexico, and Hon. Richard K. Spurrier, State Geologist of the State of New Mexico, commanding it and them in terms of law to appear and answer the Complaint of Phillips Petroleum Company, and that upon hearing herein this Honorable Court enter its judgment reversing the action of the New Mexico Oil Conservation Commission and its members in entering Orders R-351 and R-351-B, denying to the Complainant permission to dually complete its Ponzo Well No. 1, and remanding this cause to the Commission for the entry of an appropriate order, together with such other and further relief, both in law and in equity to which the Complainant may show itself justly entitled.

Jason W. Kellahin

E. S. Walker

L. J. Roberts

BEFORE THE OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 557
Order No. R-351

THE MATTER OF THE APPLICATION OF
PHILLIPS PETROLEUM COMPANY FOR
PERMISSION TO EFFECT DUAL COMPLETION
OF ITS FORZO NO. 1 WELL, LOCATED IN
NW/4 NW/4, SECTION 35, TOWNSHIP 14
SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY,
NEW MEXICO (IN THE DENTON FIELD) IN SUCH
A MANNER AS TO PERMIT PRODUCTION OF OIL
FROM THE DEVONIAN FORMATION, THROUGH
EXISTING CASING PERFORATED 12,530 TO
12,680 FEET, AND FROM 12,456 TO 12,550 FEET,
AND OIL FROM THE MONTOYA FORMATION,
AFTER PERFORATING 9,590 to 9,260 FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 16, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 28th day of August, 1953, the Commission, a quorum being present, having considered the application and the testimony adduced at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

(2) That dual completion of the Forzo No. 1 well, in the NW/4 NW/4 of Section 35, Township 14 South, Range 37 East, NMPM, in the Denton Field, Lea County, New Mexico, for production of oil from the Devonian-Silurian formation and oil from the Denton-Montoya formation through tubing is in the opinion of the Commission feasible and should be approved.

(3) That the evidence before the Commission considered this matter satisfactorily, and, in the interest of conservation, it is necessary that the proper record of this hearing be made a part of this order.

(4) That the application should be granted, and the operator should be authorized to make the dual completion as proposed.

(5) That the operator should be required to comply with all applicable rules, regulations and orders of the Commission.

-/-
Case No. 557
Order No. R-[illegible]

(6) That application for oil-oil dual completion of the Ponso No. 1 well should be denied.

IT I. [illegible]:

That the application of Phillips Petroleum Company for permission to dually complete its Ponso No. 1 well, located in the NW/4 NW/4, Section 35, Township 14 South, Range 37 East, NMPM, for oil from the Denton-Wolfcamp formation and oil from the Denton-Devonian formation be, and the same hereby is denied.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

/s/ A. L. Lechan

JOHN L. McCULLOCH, Chairman

/s/ [illegible] alker

[illegible], Member

/s/ A. R. Kourier

A. L. [illegible], Secretary

SEAL

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

Case No. 557
Order No. A-351-B

IN THE MATTER OF THE APPLICATION
OF PHILLIPS PETROLEUM COMPANY
FOR PERMISSION TO EFFECT A DUAL
COMPLETION OF IT. FORD NO. 1
WELL, LOCATED IN THE NW/4 NW/4
SECTION 35, TOWNSHIP 14 SOUTH,
RANGE 37 EAST, NMPM, LEA COUNTY,
NEW MEXICO (IN THE DAKOTA POOL),
IN SUCH A MANNER AS TO PERMIT
PRODUCTION OF OIL FROM THE DEVON-
IAN FORMATION THROUGH EXISTING CASING
PERFORATIONS, 12,580 to 12,680 FEET,
AND OIL FROM THE FUSSELMAN FORMATION
THROUGH PERFORATIONS FROM 9,590 to 9,260
FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing upon the petition of Phillips Petroleum Company on July 16, 1953 at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission" and for re-hearing on October 15, 1953.

NOW, on this 10th day of December, 1953, the Commission, a quorum being present, having fully considered the record and the testimony adduced and the exhibits received at said hearing and re-hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given, in accordance with law, the Commission has jurisdiction of this cause, the persons and subject matter thereof.

(2) That a [illegible] hearing on July 16, 1953, the Commission entered its order No. [illegible], [illegible] application for dual completion (oil-oil) of the [illegible] Well, [illegible] Section 35, Township 14 South, [illegible] East, [illegible], Lea County, New Mexico.

(3) That [illegible] application [illegible] the Commission for [illegible] Well, [illegible] hearing and rehearing, and that [illegible] October 15, 1953.

(4) That no evidence was presented at such re-hearing which [illegible] previously entered Commission's order.

Order No. R-351-B

IT IS THEREFORE ORDERED:

That Phillips Petroleum Company's application for permission to dually complete its Ponso No. 1 well located in the NW/4 NW/4 Section 35, Township 14 South, Range 37 East, NMPM, Lea County, New Mexico for production of oil from the Denton-Wolfcamp Pool, and oil from the Denton-Devonian Pool be and the same hereby is denied and the Commission's Order No. R-351 be and the same hereby is affirmed.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID L. MACHIN, Chairman

E. S. WALKER, Member

A. L. PORTER, Member and Secretary

S E A L

PHILLIPS PETROLEUM COMPANY

AMARILLO, TEXAS

September 16, 1954

LEGAL DEPARTMENT
RAYBURN L. FOSTER
VICE PRESIDENT
AND GENERAL COUNSEL
HARRY D. TURNER
GENERAL ATTORNEY

AMARILLO DIVISION
E. H. FOSTER
CHIEF ATTORNEY
R. S. SUTTON
CLIFFORD J. ROBERTS
C. REX BOYD
JACK RITCHIE
THOMAS M. BLUME
JOE V. PEACOCK
WILLIAM M. COTTON
STAFF ATTORNEYS

Re: No. 11422 - Phillips Petroleum Company v. Oil Conservation Commission et al - In the District Court of Lea County, New Mexico:

Kitts & Yost
Attorneys at Law
P. O. Box 871
Santa Fe, New Mexico

Gentlemen:

Enclosed are copies of Interrogatories served upon Magnolia Petroleum Company, Shell Oil Company and Skelly Oil Company in the above styled case.

Yours very truly,

C. J. Roberts mm

CJR:mm

C. J. ROBERTS

Encs.

cc Mr. E. H. Foster

[illegible] COMPANY,
[illegible] Plaintiff,

vs. No. 11422

[illegible] R
[illegible], et al,
Defendants

TO THE [illegible] PETROLEUM COMPANY:

Leave of Court having first been obtained, Phillips Petroleum Company requests, in accordance with Rule 33 of the Rules of the District Courts of the State of New Mexico, that the following interrogatories be answered under oath by an officer or agent of Magnolia Petroleum Company, and that the answers be served upon counsel for Phillips Petroleum Company within fifteen days from the time these interrogatories are served upon it.

INTERROGATORY No. 1:

State the name and address of the employee or agent who is answering these interrogatories on behalf of Magnolia Petroleum Company.

INTERROGATORY No. 2:

State the position with Magnolia Petroleum Company of the employee named in Interrogatory No. 1.

INTERROGATORY No. 3:

State the duties of the employee or agent named in Interrogatory No. 1.

[illegible] No. 4:

[illegible]

[illegible] No. 5:

[illegible]

[illegible] No. 6:

[illegible]

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[illegible] dual oil-oil wells.

[illegible]

Give the names of wells owned or operated by Magnolia Petroleum Company that are or were completed in two or more strata, the names of the formations each well is currently or has in the past produced from, the total depth of each well, the depth of the upper and lower producing zone in each well, the bottom hole pressure of each producing zone of each well at the time of original completion as a dual oil-oil producer, the date each well was orally completed, and the date that each well has or has no longer orally produced ceased to be orally produced.

[illegible] No. 10:

Does any of Magnolia Petroleum Company's dual oil-oil wells produce what is commonly known in the oil and gas industry as "sour" oil from either zone, and if so, how many such dual oil-oil wells does Magnolia Petroleum Company have

[illegible] No. 11:

Does any of Magnolia Petroleum Company's dual oil-oil wells produce paraffin intermediate base crude, and if so, how many such dual oil-oil wells does Magnolia Petroleum Company have

[illegible] No. 12:

Has Magnolia Petroleum Company complied with the oil segregation provisions of the [illegible] Order applicable to dual oil-oil wells for the months that [illegible]

[illegible]

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. 15:

If you have answered [illegible] No. 14 in the negative, state the reasons why you believe the production of oil through the casing-tubing annulus in the Brunson Virgo No. 1 will be non-wasteful and the production through the casing-tubing annulus in the Phillips Cenco No. 1 will be wasteful.

INTERROGATORY NO. 16:

If you have answered interrogatory No. 15 in the negative, state the reasons why you believe the production of oil through the casing-tubing annulus in the Brunson Virgo No. 1 will be non-wasteful and the production through the casing-tubing annulus in the Phillips Cenco No. 1 will be wasteful.

INTERROGATORY NO. 17:

Have dual oil-oil installations or completions by Magnolia Petroleum Company been made without the recommendation of its Engineering Department, and if so, how many dual oil-oil completions or installations has Magnolia Petroleum Company made where the Engineering Department of it did not recommend the dual oil-oil installations or completions?

INTERROGATORY NO. 18:

Did the Engineering Department of Magnolia Petroleum Company make recommendations of any sort pertaining to whether or not dual oil-oil completions would be made by Magnolia Petroleum Company

INTERROGATORY NO. 19:

If the recommendations mentioned in Interrogatory No. 18 were unfavorable, in the event you have answered Interrogatory No. 18 affirmatively, what were the wells drilled without a favorable recommendation from its Engineering Department, giving names, leases, locations, [illegible]

INTERROGATORY NO. [illegible]:

[illegible]

INTERROGATORY NO. [illegible]:

[illegible]

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[illegible] No. 22:

[illegible] oil-oil well in oil sands where previously [illegible] oil-oil wells in the reservoir containing the oil strata

[illegible] No. 23:

In the event you have answered interrogatory No. 22 in the affirmative, state the names of the fields wherein you have completed the first dual oil-oil wells, as well as the states in which such fields are located.

INTERROGATORY NO. 24:

Has Magnolia Petroleum Company ever applied to a state regulatory oil and gas administrative agency for a permit to dually complete an oil-oil well where an offset operator had not at the time of its application applied for a permit to dually complete

INTERROGATORY No. 25:

In the event you have answered interrogatory No. 24 in the affirmative, state the names of the fields in which such wells were dually completed and the states in which such fields are located.

INTERROGATORY NO. 26:

Is it true that Magnolia Petroleum Company made no appearance before the Railroad Commission of Texas at the hearing before that Commission on the application to dually complete Avid-Grace Unit No. 1-A, Jackson, Jackson County, Texas, as well No. 1-A well in the Jackson (1-A), the order permitting such completion being dated February 8, 1954.

INTERROGATORY No. 27:

Is it true that in June of 1954 Magnolia Petroleum Company applied before a [illegible] Railroad Commission hearing at Corpus Christi, Texas, to dually complete its Stanolind-Hall No. 1 well in the Jackson (1-A) Field, Jackson County, Texas

INTERROGATORY No. 28:

Is it true that Magnolia Petroleum Company did not [illegible] to dually complete its Stanolind-Hall No. 1 well in the Jackson (1-A) Field, Jackson County, Texas

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. 29:

Is it correct that the Yates Clear Lemonayer stratum is deeper than 11,000 feet

. 30:

Is it correct that the Yates Clear Devonian stratum is deeper than 11,000 feet

. 31:

Is it not true that Apollo Petroleum Company did not have a lawyer or engineer or other employee personally present to protest the first hearing before the Railroad Commission of Texas for a dual oil-oil completion in the Pegasus Field of Texas

. 32:

Is it true that the Railroad Commission of Texas on or about June 27, 1950, granted a special order permitting dual oil-oil completions without separate hearings for each application to dually complete in the Shafter Lake Devonian and Wolfcamp strata

. 33:

Is it true that in the order entered by the Railroad Commission of Texas that is the subject of Interrogatory No. 32, the Railroad Commission recognized that dual completions in the Shafter Lake Devonian and Shafter Lake Wolfcamp were feasible

. 34:

What is your definition of sour crude

. 35:

Is it a fact that the crude in the Shafter Lake Devonian and Shafter Lake Wolfcamp strata is sour crude as that term is used in the oil and gas industry

. 36:

Is the crude in either the Shafter Lake Devonian or Shafter Lake Wolfcamp strata sour crude as that term is used in the industry

. 37:

Is it a fact that the crude in the Shafter Lake Devonian and Shafter Lake Wolfcamp strata is such that dual oil-oil completions in the Shafter Lake Devonian and Shafter Lake Wolfcamp would be feasible in the oil and gas industry

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It is true that Magnolia Petroleum Company, through a duly authorized agent, submitted to the Railroad Commission of Texas at a hearing on multiple zone completions of March 4, 1949, the following statement:

> "A thorough study has been made of the dually completed wells of Magnolia Petroleum Company, and in the light of that experience we hereby submit our opinion as to the feasibility and practicability of the use of multiple zone completions in this State.
>
> "(1) Great advances have been made during the past several years in the manufacture of equipment that is capable of maintaining a satisfactory seal between two producing horizons, except in those cases where corrosion is excessive. For this reason multiple zone completions have become more feasible and practical.
>
> "In our opinion, dual completions between two gas reservoirs and combination oil-gas dual completions where the oil is produced through the tubing are justified and should be permitted in order to prevent waste.
>
> "(2) It would be economically impossible to develop some stringer sands unless dual completions were permitted. In such cases dually completed wells result in greater ultimate recovery of oil and gas.
>
> "(3) We do not, in general, approve of any type of dual completion, either oil-oil or oil-gas, that results in oil being produced through the annular space between the tubing and casing. In our opinion the annulus does not, in most instances, provide a proper flow mechanism and wells so produced have a shorter flowing life and tend to dissipate reservoir energy and reduce ultimate oil recovery. It is, however, recognized that such dual completions are justified in some instances because of economic reasons or because of shortages in material.
>
> "(4) It is our recommendation that the system now followed by the Commission of having dual completion hearings on individual wells be continued. Since conditions vary from field to field and from reservoir to reservoir within the same field, it is not believed that the problems can be adequately and efficiently solved on a statewide basis. We do, however, believe that there is justification for statewide regulation in regard to the establishment of uniform periodic pressure tests to determine the possibility of communication between multiple completed reservoirs. Such tests to be made, in general, in connection with [illegible] view of the Commission the results of these tests reported to the Commission.

[illegible]

INTERROGATORY No. 40:

In the event you have answered that Mr. Hosler made a statement to the effect set forth in Interrogatory No. 39, does Apollo Petroleum Company agree that the statement made by Mr. Hosler is true

INTERROGATORY No. 41:

Is it true that in the East Monument Field Apollo Petroleum Company dually completed oil-oil wells

INTERROGATORY No. 42:

If you have answered Interrogatory No. 41 affirmatively, is it not true that the reason for so doing was competition of offset operations?

INTERROGATORY No. 43:

Is it true that the nature of the formations in both the Wolfcamp and Devonian in the Denton Field, Lea County, New Mexico, the field involved in this case, is not that of a sandy, crumbling nature so that the sand itself is not produced to any great extent with the liquids

INTERROGATORY No. 44:

Is it true that no trouble will be encountered in dually completing wells in the Wolfcamp and Devonian formations in the Denton Field, Lea County New Mexico, insofar as setting a packer between the two producing formations or zones is concerned.

Dated this the 16th day of September, 1954.

Apollo Petroleum Company
P. O. Box 301
Amarillo, Texas

ORIGINAL SIGNED BY
C. J. ROBERTS
Counsel

P. O. Box 1351
Amarillo, Texas

Attorneys for Phillips
Petroleum Company

Sworn to and subscribed before me this the 16th day of September, 1954, a duly authorized officer of the Apollo Petroleum Company, a Texas corporation, appeared in person, who is known to me personally, and being by me duly sworn on oath stated that he is the duly authorized agent of the above corporation and that he executed the above and foregoing instrument as the act and deed of said corporation, and that the statements therein contained are true and correct.

ORIGINAL SIGNED BY
Notary Public

37 1963

[illegible] Y

[illegible],

Plaintiff

vs. No. 11122

[illegible]

Defendants

TO THE SHELL OIL COMPANY:

Leave of Court having first been obtained, Phillips Petroleum Company requests, in accordance with Rule 33 of the Rules of the District Courts of the State of New Mexico, that the following interrogatories be answered under oath by an officer or agent of Shell Oil Company, and that the answers be served upon counsel for Phillips Petroleum Company within fifteen days from the time these interrogatories are served upon it:

INTERROGATORY NO. 1:

State the name and address of the employee or agent who is answering these interrogatories on behalf of Shell Oil Company.

INTERROGATORY NO. 2:

State the position with Shell Oil Company of the employee named in Interrogatory No. 1.

INTERROGATORY NO. 3:

State the duties of the employee [illegible] named in Interrogatory No. 1.

[illegible] Interrogatory No. 4:

[illegible]

[illegible]

[illegible]

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[illegible] completed oil-oil wells?

INTERROGATORY NO. 8:

Name the fields in which Shell Oil Company owns or operates dually completed oil wells.

INTERROGATORY NO. 9:

State the names of the wells owned or operated by Shell Oil Company that are or were completed in two or more strata, the names of the formations each well is currently or has in the past produced from, the depth of the upper and lower producing zone in each well, the bottom-hole pressure of each produced zone of each well at the time of original completion as a dual oil-oil producer, the dates each well was dually completed, and the date that each well that is no longer dually produced, ceased to be dually produced.

INTERROGATORY NO. 10:

Does any of Shell Oil Company's dual oil-oil wells produce what is commonly known in the oil and gas industry as 'sour' oil from either zone, and if so, how many such oil-oil wells does Shell Oil Company have

INTERROGATORY NO. 11:

What is your definition of 'sour' oil?

INTERROGATORY NO. 12:

Does any of Shell Oil Company's dual oil-oil wells produce paraffin intermediate base crude, and if so, how many dual oil-oil wells does Shell Oil Company have

[illegible]

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[illegible]

[illegible] offset operator has not at this [illegible] application, [illegible] permit to dually complete.

[illegible] No. 16:

In the event you have answered Interrogatory No. 15 in the affirmative, state the names of the fields in which such wells were dually completed, and the states in which such fields are located.

[illegible] No. 17:

Is it true that the Railroad Commission of Texas, on or about June 27, 1950, granted a special order permitting dual oil-oil completion without separate hearings for each application to dually complete in the Baxter Lake Devonian and Wolfcamp strata.

[illegible] No. 18:

Is it true that in the order entered by the Railroad Commission of Texas that is the subject of Interrogatory No. 17, the Railroad Commission recognized that dual completions in the Baxter Lake Devonian and Baxter Lake Wolfcamp were feasible?

[illegible] No. 19:

Is it a fact that the crude in the Baxter Lake Devonian and Baxter Lake Wolfcamp strata is sour crude as that term is used in the oil and gas industry?

[illegible] No. 20:

If the crude in the Baxter Lake Devonian and Baxter Lake Wolfcamp strata is not sour as to both zones, is the crude in either zone sour as that term is used in the oil and gas industry, and if so, in which zone [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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[illegible] No. 24:

[illegible] true that no trouble will be encountered in [illegible] drilling wells in the Gilfillan and Seminole formations in the Seminole field in Gaines County, New Mexico, insofar as setting a packer between the two producing formations or zones is concerned.

Interrogatory No. 25:

Is Mr. E. J. Adams, representing the Shell Oil Company at a hearing concerning the use of multiple completions in well bores in the State of Texas before the Railroad Commission of Texas held at Austin, Texas on March 8, 1949, state to the Railroad Commission of Texas as follows:

> "First I will read a statement. Shell is opposed to an enactment of any statewide rule which will prohibit or eliminate or tend to prohibit or eliminate the practice of dual completions, or liberalize the present policy by elimination of separate hearings on applications to complete wells dually. In other words, we hold that each case should be considered on its merits. Most of the data I have here is on conditions where dual experience has been good. I think in some places dual completions don't work too well."

Interrogatory No. 26:

In the event you have answered that Mr. Adams made the statement as set out in Interrogatory No. 25, does Shell Oil Company agree that the statement made by Mr. Adams is true.

Interrogatory No. 27:

Is Mr. [illegible] Adams, representing the Shell Oil Company at a hearing concerning the use of multiple zone completions as identified in Interrogatory No. 25, make a statement concerning the performance of Shell Oil Company in the [illegible] field of Texas, to-wit:

> "Mr. Adams, Shell has [illegible] wells, [illegible] of those are new wells, [illegible] think that at [illegible] they have passed two-thirds to [illegible] production practice. Those are all oil-oil. [illegible] some gas [illegible] to us. [illegible] were recompleted in 1944, partly because of war-time pressure. That resulted in [illegible] more oil with less critical tubular goods. The intervening five-year period has given us [illegible] to look at the performance in the light of [illegible] often expressed misgivings of [illegible] and we still often hear [illegible] failures. [illegible] the exceptions can be explained. [illegible] most of the instances of [illegible] were [illegible] occurred upon completion of the well. [illegible] all [illegible] efforts [illegible] successful. [illegible] operators [illegible] at hand. [illegible] complete production test is made on each well at least [illegible] more a month. [illegible] pressures are run every six months. [illegible] tests are made each [illegible] to, [illegible] while [illegible] the detection of failure. Profits are measured [illegible]. [illegible] from most of the [illegible]

37 1931

This is done by closing both wells in for a period of time, and then opening one well and observing the pressure on the closed-in well. If the pressure remains constant, then the two zones are separated. I might mention one more point here. Of the 40 dual completions, five failures, all of these were war-time packers. We have had no failures in recent years. We believe these failures were due to faulty rubber in the war-time packers. Generally speaking, mechanical separation in the casing, we believe have been perfected to an extent comparable with any other device or tool on the market. In a gas-gas well in the Riverside Field we had extreme pressure and that is holding. We feel commingling is also possible outside of the casing and very important, whether one or two zones are ~~produced simultaneously or not, whether~~ dual or single, and we have been following an early program deemed to improve casing practice. We have had very nice results. In Seeligson, other than dual zones completed above the casing shoe, as I recall, 93 per cent were successful, some distance 200' above the shoe, and by successful, I mean when perforated the zone produced what it should have produced. That test was made to see whether or not we should squeeze and in 93 per cent of the cases squeeze was not necessary.

INTERROGATORY NO. 28:

In the event that you have answered that Mr. Hodson made a statement to the effect set forth in Interrogatory No. 27, does Shell Oil Company agree that the statement made by Mr. Hodson is true?

INTERROGATORY NO. 29:

Did Mr. [illegible] J. Hodson, representing the Shell Oil Company at a hearing concerning the use of multiple zone completions in well bores in the State of Texas as identified in Interrogatory No. 25, state that he did not know of any waste in dually completed wells of Shell Oil Company in the Meridan field of Texas?

INTERROGATORY NO. 30:

In the event you have answered Interrogatory No. 29 in the affirmative, does that position taken by Mr. Hodson represent the position of Shell Oil Company in respect to waste in the Meridan Field of Texas.

INTERROGATORY NO. 31:

[illegible]

INTERROGATORY NO. 32:

[illegible]

INTERROGATORY NO. 33:

[illegible]

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. 34:

In the event you have answered interrogatory No. 33 in the negative, state the reasons why the Shell Oil Company does not feel that corrosion problems in dually completed wells cannot be successfully handled.

Interrogatory No. 35:

Mr. E. O. Thorson, representing the Shell Oil Company in 1949 at a hearing before the Railroad Commission of Texas on multiple zone completions in well bores in the State of Texas which is identified in Interrogatory No. 25, in respect to the experience of the Shell Oil Company in the Seeligson Field of Texas, gave the following statement:

> "Artificial lift in flowing life, either by pumping or gas lift, is already feasible for one of the zones. One well pumps the full allowable plus 58 per cent water in zone 19-A. The other flows the full 19-A allowable through the casing. When the casing well fails, we will be in a position to install a two-zone pump. We have had no experience with the two-zone pump, but understand it is working satisfactorily for other operators.
>
> "Another well I think the Commission will find interesting, No. 26, the upper zone, zone 13-A, pumps its full allowable plus 13 per cent water while the lower zone flows its full allowable through the annulus by the use of a cross-over packer. The two-zone - the two packer installations were made in January, 1946, the production and cross-over packers to divert the upper zone to the tubing. You often hear that a packer won't hold in a pumping well. We watch these very carefully, and since October it has been doing very nicely. We don't know how long it will last; it is holding so far. There is some general objections that we haven't found particularly troublesome. No unusual paraffin trouble has been experienced. Sometimes the side-door chokes have to be pulled and it runs up the price of pressure surveys. It is not necessary to take pressure surveys of every well, so we have a pressure pattern or survey. Work-overs are more expensive. We have not encountered any difficulties we would term unusual or attributable to dual completions there.

[illegible]

INTERROGATORY NO. 36:

If you have answered that Mr. [illegible] made the statement that is set out in Interrogatory No. 35, does the Shell Oil Company agree in substance with that statement made by Mr. [illegible], and if it does not agree in substance, state the reasons why it does not agree.

INTERROGATORY NO. 37:

Did the Shell Oil Company, through Mr. [illegible] Brunner, advise the Railroad Commission of Texas by telegram in regard to a hearing set for May 16, 1950, that the Shell Oil Company agreed that hearings before the Commission should not be required for dual completions in the Bedford Devonian and Ellenburger fields of Texas.

INTERROGATORY NO. 38:

What are the approximate depths of the Bedford Devonian and Bedford Ellenburger fields of Texas?

INTERROGATORY NO. 39:

Which, if either, of the Bedford Devonian and Bedford Ellenburger fields produces sour crude as that term is used in the industry?

INTERROGATORY NO. 40:

Does either the Bedford Devonian or Bedford Ellenburger field produce paraffin intermediate base crude?

INTERROGATORY NO. 41:

Did the Shell Oil Company, through Mr. [illegible] Brunner, by telegram, advise the Railroad Commission of Texas in connection with a hearing to be held on May 16, 1950, before the Railroad Commission of Texas, that the Shell Oil Company as the operator of [illegible] wells in the [illegible]

[illegible]

[illegible]

INTERROGATORY NO. 42:

[illegible]

[illegible]

INTERROGATORY NO. 43:

[illegible]

[illegible]

INTERROGATORY NO. 44:

[illegible]

[illegible]

INTERROGATORY NO. 45:

Did the Shell Oil Company, through ... advise the Railroad Commission of Texas, ... hearing to be held on May 16, 1950, that the Shell Oil Company ... the necessity for public hearings on dual completions in the Robertson Ellenburger and Devonian fields in Texas?

INTERROGATORY NO. 46:

What are the approximate depths of the Devonian and Ellenburger zones in the Robertson field?

INTERROGATORY NO. 47:

Does either the Robertson Devonian field or the Robertson Ellenburger field produce sour crude as that term is used in the industry?

INTERROGATORY NO. 48:

Does either the Robertson Devonian field or the Robertson Ellenburger field produce paraffin intermediate base crude?

INTERROGATORY NO. 49:

Did the Shell Oil Company advise the Railroad Commission of Texas by telegram in regard to a hearing to be held on May 16, 1950, that the Shell Oil Company agrees that hearings should not be required for dual completions in the Goldsmith 560-foot and Clearfork fields?

INTERROGATORY NO. 50:

Does either the Goldsmith 560-foot field or the Goldsmith Clearfork field produce sour gas as that term is used in the oil and gas industry?

INTERROGATORY NO. 51:

Did the Shell Oil Company, by telegram, advise the Railroad Commission ... in regard to a hearing to be held on May 16, 1950, ... [illegible]

. 54:

[illegible] either the Mason [illegible] Intermediate base crude

[illegible] . 55:

In the Shell Oil Company, [illegible] telegram, advise the [illegible] relative to a hearing to be held on May 16, 1950 to determine whether dual completions should be completed without hearing in the Flanagan field, that the Shell Oil Company recommended eliminating the necessity of public hearing for dual completions from the Clearfork, Devonian and Ellenburger reservoirs of that field?

[illegible] NO. 56:

What are the approximate depths of the Clearfork, Devonian and Ellenburger zones in the Flanagan field?

[illegible] NO. 57:

Does either of the Clearfork Devonian or Ellenburger reservoirs of the Flanagan field produce sour crude?

[illegible] NO. 58:

Does either the Clearfork Devonian or Ellenburger zones of the Flanagan field produce paraffin intermediate base crude?

[illegible] NO. 59:

How many wells does the Shell Oil Company operate in the Flanagan field?

Dated this the 16th day of September, 1954.

[illegible]
[illegible]
Box 361
[illegible], New Mexico

[illegible]
[illegible]
[illegible]

[illegible]
Box 1751
Odessa, Texas

ORIGINAL REPORTED
C. O. ROBERTS

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]
L. O. ROBERTS

[illegible]

IN THE [illegible]

STATE [illegible]

[illegible] COMPANY,
Plaintiff

vs. No. 11422

[illegible] CONSERVATION COMMISSION [illegible]
OF NEW MEXICO [illegible],
Defendants

TO THE [illegible] COMPANY:

Leave of Court having first been obtained, Phillips Petroleum Company requests, in accordance with Rule 33 of the Rules of the District Courts of the State of New Mexico, that the following interrogatories be answered under oath by an officer or agent of Kelly Oil Company, and that the answers be served upon counsel for Phillips Petroleum Company within fifteen days from the time these interrogatories are served upon it:

INTERROGATORY NO. 1:

State the name and address of the employee or agent who is answering these interrogatories on behalf of Kelly Oil Company.

INTERROGATORY No. 2:

State the position with Kelly Oil Company of the employee named in Interrogatory No. 1.

INTERROGATORY No. 3:

State the duties of the employee or agent named in Interrogatory No. 1.

INTERROGATORY No. 4:

[illegible] Kelly Oil Company employees to [illegible] answers to [illegible] actually prepared by [illegible]

INTERROGATORY No. 5:

[illegible] Kelly Oil Company have, or has had [illegible] to have employees testify [illegible]

INTERROGATORY No. 6:

[illegible]

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[illegible] No. 7:

[illegible] completed oil-oil wells

INTERROGATORY NO. 8:

Name the fields in which Kelly Oil Company owns or operates dually completed oil wells.

INTERROGATORY NO. 9:

State the names of the wells owned or operated by Kelly Oil Company that are or were completed in two or more strata, the names of the formations each well is currently or has in the past produced from, the depth of the upper and lower produced zone in each well, the bottom-hole pressure of each produced zone of each well at the time of original completion as a dual oil-oil producer, the dates each well was dually completed, and the date that each well that is no longer dually produced, ceased to be dually produced.

INTERROGATORY NO. 10:

Does any of Kelly Oil Company's dual oil-oil wells produce what is commonly known in the oil and gas industry as "sour" oil from either zone, and if so, how many such oil-oil wells does Kelly Oil Company have

INTERROGATORY NO. 11:

What is your definition of "sour" oil

INTERROGATORY NO. 12:

Does any of Kelly Oil Company's dual oil-oil wells produce paraffin intermediate base crude, and if so, how many such dual oil-oil wells does Kelly Oil Company have

[illegible]

[illegible] Kelly Oil Company ever completed the first dual oil-oil well in [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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[illegible] permit to dually complete.

[illegible] No. 16:

In the event you have answered Interrogatory No. 15 in the affirmative, state the names of the fields in which such wells were dually completed, and the states in which such fields are located.

INTERROGATORY NO. 17:

Is it true that the Railroad Commission of Texas, on or about June 27, 1950, granted a special order permitting dual oil-oil completion without separate hearings for each application to dually complete in the Hafter Lake Devonian and Wolfcamp strata

INTERROGATORY NO. 18:

Is it true that in the order entered by the Railroad Commission of Texas that is the subject of Interrogatory No. 17, the Railroad Commission recognized that dual completions in the Hafter Lake Devonian and Hafter Lake Wolfcamp were feasible

INTERROGATORY NO. 19:

Is it a fact that the crude in the Hafter Lake Devonian and Hafter Lake Wolfcamp strata is sour crude as that term is used in the oil and gas industry

INTERROGATORY NO. 20:

If the crude in the Hafter Lake Devonian and Hafter Lake Wolfcamp strata is not sour as to both zones, is the crude in either zone sour as that term is used in the oil and gas industry, and if so, in which zone

INTERROGATORY NO. 21:

[illegible] sour crude as that term is used in the oil and gas industry

INTERROGATORY NO. 22:

[illegible]

4

[illegible]

. 4:

s it the opinion of the Kelly Oil Company that the lack of a 100-foot interval between the Wolfcamp and Permian formations in the Denton Field in Lea County, New Mexico, is a sound objection to dually completing wells in the Wolfcamp and Permian formations in that field

. 5:

Is it the opinion of the Kelly Oil Company that the lack of a sufficient interval between two separate producing zones so as to permit the setting of a packer between the two producing zones with certainty, is a sound objection to dual completions in such two zones

Dated this the 16th day of September, 1954.

Jason . Kellahin
. . . ox 361
anta Fe, New Mexico

. K. Foster
Thomas . Hume
. J. Roberts
501 First National Bank Bldg.
. . . ox 1751
Amarillo, Texas

Attorneys for Phillips
Petroleum Company

ORIGINAL SIGNED BY
C. J. ROBERTS

Of Counsel

I hereby certify that on this the 16th day of September, 1954, a copy of the foregoing interrogatories to the Kelly Oil Company was served upon Seth Montgomery, attorneys for the said Kelly Oil Company, by placing a copy of the same in the United States Post Office at Amarillo, Texas, duly stamped and addressed to him at his only mery, first class postage prepaid, ant a, New Mexico.

ORIGINAL SIGNED BY
C. J. ROBERTS

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37

MAGNOLIA PETROLEUM COMPANY

A SOCONY-VACUUM COMPANY

LEGAL DEPARTMENT

P. O. BOX 900
DALLAS 21, TEXAS

EARL A. BROWN
GENERAL COUNSEL
ROY C. LEDBETTER
RAYMOND M. MYERS
CHAS. B. WALLACE
R. T. WILKINSON, JR.
FRANK C. BOLTON, JR.
JACK VICKREY
SAM H. FIELD
ROSS MADOLE
FLOYD B. PITTS
ROY L. MERRILL
ALBERT E. AIKMAN
JACK E. EARNEST
ASSISTANTS

Sep. 21, 1954

RE: Phillips Petroleum Company v. Oil Conservation Commission of New Mexico, et al, No. 11422 in the District Court of Lea County, State of New Mexico

Mr. Willard F. Kitts,
P. O. Box 871,
Santa Fe, New Mexico.

Dear Sir:

Enclosed is a copy of objections to interrogatories, with notice of hearing on said objections set by the court for October 13th at 10 A. M. in Judge John R. Brand's chambers in Hobbs, New Mexico.

Yours very truly,

A. E. Aikman

AEA:as

Enclosure

PHILLIPS PETROLEUM COMPANY

Plaintiff

v.

OIL CONSERVATION COMMISSION OF NEW MEXICO, ET AL

Defendants

No. 11422

OBJECTIONS BY MAGNOLIA PETROLEUM COMPANY TO INTERROGATORIES OF PHILLIPS PETROLEUM COMPANY

TO THE HONORABLE COURT AND TO PHILLIPS PETROLEUM COMPANY:

COMES NOW defendant Magnolia Petroleum Company, in accordance with Rule 33 of the Rules of the District Courts of the State of New Mexico, objecting to the interrogatories propounded by Phillips Petroleum Company to defendant Magnolia Petroleum Company.

Defendant Magnolia Petroleum Company:

1. Objects to each and all the interrogatories, 1 through 44, for the following reasons:

(a) That none of the interrogatories are material or relevant to the issues of the case, and any answers thereto will simply confuse and complicate the true issues of the case.

(b) That the interrogatories are propounded in an effort to show that Magnolia Petroleum Company may not produce oil-oil gas ratio allowables in other pools, and in connection with different fields, or that Magnolia Petroleum Company is not altogether opposed to oil-oil gas correlations, all of which are void and tend to prove or disprove any of the issues in the case, nor check the Oil Conservation Commission's action in urging Plaintiff's application be granted.

(c) That the interrogatories primarily amount to a rehash of the testimony before the Oil Conservation Commission, in violation of this court's pretrial ruling that such a rehash would not be permitted.

(d) That the interrogatories are simply a form of argument that if oil-oil duals are permitted in states other than New Mexico, and particularly Texas, then oil-oil duals must be permitted in New Mexico.

(e) That the nature and scope of the interrogatories are such that Magnolia Petroleum Company would be put to a tremendous expense to gather the information requested and, in addition, the time necessary to gather and correlate such information would extend quite beyond the time allowed by law to answer interrogatories, and that such answers would serve no useful purpose, and certainly not any purpose commensurate with the time and expense required.

(f) That Rule 33 pertaining to interrogatories was not designed to permit one party to a suit to harrass an opposing party by requesting answers to interrogatories which are so general in nature and pertaining to information and data so far removed and irrelevant to the case as these interrogatories are.

2. Objects to each and all of Interrogatories Nos. 4, 5, 6, 7, 8, 9, 10, and 11 for the reason that they are not relevant or material to any issue in the lawsuit and will only serve to confuse and complicate the true issues, that they are designed to create issues not material to the suit, but, irrespective of that the answers to such interrogatories may be, such answers could not tend to justify or show error in the Commission's action in denying Plaintiff's application for an oil-oil dual in the Eunice Field, etc.

3. Objects to each and all of interrogatories Nos. 4, 5, 6, 7, 8, 9, 10, and 11 for the reason that they are not relevant and material to any issues in the case, and further specifically

Petroleum Company made such an application in a completely different field can scarcely hinder or substantiate plaintiff's case, that the context of Interrogatory No.12 shows that any such application is concerned with an entirely different situation than the one involved in this lawsuit, and that such application is merely for the purpose of testing.

4. Objects to Interrogatory No. 14 for the reason that it is irrelevant and immaterial to any issue in the case, that it is argumentative, and does not constitute a proper question, and that it is based upon the erroneous assumption that Interrogatories Nos. 12 and 13 are relevant and material.

5. Objects to each and all of Interrogatories Nos. 15 and 16 for the reason that they are immaterial and irrelevant, that they are argumentative in nature and do not constitute proper questions, and that they are based upon the erroneous assumption that Interrogatories Nos. 12, 13 and 14 are relevant and material.

6. Objects to each and all of Interrogatories Nos. 17, 18, 19, 20 and 21 for the reason that they are immaterial and irrelevant, that they are argumentative and do not constitute proper questions, that answer thereto by defendant to such interrogatories may be used to prove or disprove or to substantiate or hinder plaintiff's case, nor are they tend to justify or show error in the questions set forth in plaintiff's petition.

7. Objects to each and all of Interrogatories Nos. 22 and 23 for the reason that they are immaterial and irrelevant to the issues of the case, [illegible] and [illegible]

to prove or disprove plaintiff's case, nor do they tend to justify or show error in the Commission's action in denying plaintiff's application, and that the questions obviously pertain to fields and reservoirs other than the Benton field and fields located elsewhere than in the State of New Mexico.

8. Objects to each and all of Interrogatories 24 and 25 for the reason that they are immaterial and irrelevant to any issues in the case, that they do not tend to prove or disprove plaintiff's case, nor do they tend to justify or show error in the Commission's action in denying plaintiff's application.

9. Objects to each and all of Interrogatories Nos. 26, 27 and 28 for the reason that they pertain to a matter completely immaterial and irrelevant to the issues of the case, that they pertain to a completely different field located in a completely different state than the Benton field involved in this case, that the answers to such questions do not tend to prove or disprove plaintiff's case, nor do they tend to justify or show error in the Commission's action in denying plaintiff's application, and that they are argumentative in nature and do not constitute proper questions.

10. Objects to each and all of Interrogatories 29 and 30 for the reason that they are immaterial and irrelevant to the issues in this case, that they pertain to a completely different field in a completely different state than the Benton field involved in this case, that they do not tend to prove or disprove any of the issues of the case, nor do they tend to justify or show error in the Commission's action in [illegible] in this

11. Objects to Interrogatory No. 31 for the reason that it is immaterial and irrelevant to the issues in this case, does not tend to prove or disprove plaintiff's case, nor does it tend to justify or show error in the Commission's action in denying plaintiff's application.

12. Objects to each and all of Interrogatories Nos. 32 and 33 for the reason that they are immaterial and irrelevant to the issues of the case, they do not tend to prove or disprove any issues of the case, nor do they tend to justify or show error in the Commission's action in denying Phillips' application; that whether the Railroad Commission of Texas acted in a certain manner is a matter of public record and not a proper question to be propounded to defendant Magnolia Petroleum Company.

13. Objects to Interrogatory No. 34 for the reason that it is immaterial and irrelevant to the issues of the case, it is argumentative and does not tend to in any manner prove or disprove the issues of the case, nor does it tend to justify or show error in the Commission's action in denying Plaintiff's application.

14. Objects to Interrogatory No. 35 for the reason that it is immaterial and irrelevant to the issues of the case, it is argumentative and does not tend to in any manner prove or disprove the issues of the case, nor does it tend to justify or show error in the Commission's action in denying Plaintiff's application, and that it calls for a conclusion of law involved in this case.

15. Objects to Interrogatory No. 36 for the reason that it is immaterial and irrelevant to the issues of the case, it is argumentative and does not tend to in any manner prove or disprove the issues of the case, nor does it tend to justify or show error in the Commission's action in denying plaintiff's application, and that it relates to a completely different field in a different state than the Benton field involved in this cause.

16. Objects to Interrogatory No. 37 for the reason that it is immaterial and irrelevant to the issues of the case, it is argumentative and does not tend to in any manner prove or disprove the issues of the case, nor does it tend to justify or show error in the Commission's action in denying plaintiff's application, and that it relates to a completely different field in a different state than the Benton field involved in this cause.

17. Objects to Interrogatory No. 38 for the reason that it is immaterial and irrelevant to the issues of the case and does not tend to prove or disprove any of the issues in the case, nor tend to justify or show error in the Commission's action in denying plaintiff's application, that it relates to matters completely different to the Benton field and to a state other than the State of New Mexico, and is argumentative in nature and not a proper question to be propounded.

18. Objects to Interrogatories Nos. 39 and 41 for the reason that they are immaterial and irrelevant to the issues of the case, it is argumentative in nature and does not tend to prove or disprove any of the issues in the case, nor tend to justify or show error in the Commission's action in [illegible]

19. Objects to each and all of Interrogatories Nos. 41 and 42 for the reason that they are immaterial and irrelevant to the issues in this case, that they relate to a completely different field in a different state other than the Fenton field involved in this case, that they do not tend to prove or disprove any issues of the case, nor do they tend to justify or show error in the Commission's action in denying plaintiff's application.

20. Objects to Interrogatory No. 3 for the reason that it amounts to a rehash of the testimony before the Commission, which this court by its pretrial ruling has precluded.

21. Objects to Interrogatory No. 44 for the reason that it amounts to a rehash of the testimony before the Commission, which by virtue of its pretrial ruling this court has precluded.

WHEREFORE, premises considered, defendant Magnolia Petroleum Company prays the court to set a time for hearing these objections and that upon said hearing each and all of the foregoing objections be sustained.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

You are hereby notified that Judge John R. Brand has set a hearing on the foregoing objections at 10 A. M. on October 1, 1954 at his office in Hobbs, New Mexico.

A. E. Aikman

CERTIFICATE OF SERVICE

I hereby certify that on the 21st day of September, 1954 copy of the foregoing objections by Magnolia Petroleum Company to interrogatories propounded to it by Phillips Petroleum Company was served upon C. J. Roberts, attorney for said Phillips Petroleum Company by placing a copy of same in the United States Postoffice at Dallas, Texas, duly stamped and addressed to him at 501 First National Bank Building, P. O. Box 1751, Amarillo, Texas.

A. E. Aikman

JASHKO BUILDING

JOHN R. BRAND
DISTRICT JUDGE
FIFTH JUDICIAL DISTRICT
STATE OF NEW MEXICO

P. O. BOX 1176
HOBBS, NEW MEXICO

TELEPHONE 3-2195

Midland, Texas

John R. Brand

IN THE DISTRICT COURT OF LEA COUNTY
STATE OF NEW MEXICO

PHILLIPS PETROLEUM COMPANY, Plaintiff,	)	
v.	)	No. 11422
OIL CONSERVATION COMMISSION OF NEW MEXICO, ET AL., Defendants.	)	

NOTICES OF WITNESSES TO BE USED,
THEIR ADDRESSES, AND SUMMARY OR NATURE OF THEIR TESTIMONY

TO PHILLIPS PETROLEUM COMPANY, OIL CONSERVATION COMMISSION OF NEW MEXICO, THE MAGNOLIA PETROLEUM COMPANY, AND THE SKELLY OIL COMPANY:

You are hereby advised, in accordance with instructions of the Court, that the names, addresses, and the nature of the testimony of the witnesses which Shell Oil Company proposes to use in the trial of this case are as follows:

E. W. Nestor
Hobbs, New Mexico

The commercial possibility of the Wolfcamp Reservoir in the area involved in this action in the Denton field; also as to waste resulting from dual completion due to number and expense of workovers and possible communication between different reservoirs and greater expense and difficulties attendant to artificially lifting such wells.

B. O. Carlson
Hobbs, New Mexico

C. A. Hull
Midland, Texas

R. P. Moscript
Midland, Texas

The number and expense of workovers on dually completed wells and possible communication between different reservoirs and waste resulting therefrom and greater expense and difficulties attendant to artificially lifting such wells.

H. H. Carter
Midland, Texas

Information pertaining to drilling and well completion costs in

the Denton Field.

W. F. Quevreaux
Midland, Texas

Use of dual completion equipment and mechanical failures experienced, and limitations of dual lift equipment.

Seth & Montgomery
SETH and MONTGOMERY
Santa Fe, New Mexico

Paxton Howard
PAXTON HOWARD
Midland, Texas

Attorneys for Shell Oil Company

CERTIFICATE

I hereby certify that I have this 10th day of September, 1954, mailed a copy of the foregoing, postage prepaid, to Mr. Jason W. Kellahin, P. O. Box 361, Santa Fe, New Mexico, Mr. E. H. Foster, 501 First National Bank Bldg., Amarillo, Texas, Mr. W. F. Kitts, P. O. Box 871, Santa Fe, New Mexico, Mr. Ross Madole, P. O. Box 900, Dallas, Texas, and Mr. H. C. Kerr, P. O. Box 1650, Tulsa, Oklahoma: they being attorneys of record in this cause.

Paxton Howard
Attorney for Shell Oil Company

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

September 21, 1954

COPY

Mr. Paxton Howard,
General Attorney
Shell Oil Company
Petroleum Building
Midland, Texas

Re: Phillips Petroleum Company
v. Oil Conservation Commission,
et al, No. 11422, District Court,
Lea County, New Mexico.

Dear Mr. Howard:

I have your letter of September 17, 1954, regarding the meeting to be held on October 12 in Midland of the attorneys and the defense witnesses in the above captioned case.

Bill Macey and Mel Yost are both out of town this week but I think that I can say with certainty that either Mr. Yost or I, and probably both of us, will be present at the meeting accompanied by Stanley J. Stanley, our witness.

As soon as Mr. Macey and Mr. Yost return from Washington I will notify them immediately about this meeting and will also take it upon myself to inform Mr. Walker and Governor Mechem.

Very truly yours,

W. F. KITTS, Attorney
Oil Conservation Commission

WFK/ir

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

September 21, 1954

COPY

Mr. Stanley J. Stanley
Oil Conservation Commission
P. O. Box 2045
Hobbs, New Mexico

Re: Phillips Petroleum Company
v. Oil Conservation Commission,
et al, No. 11422, District Court,
Lea County, New Mexico.

Dear Stan:

Earlier this week I received a letter from Paxton Howard of Midland. He proposes to have a meeting in Midland October 12, 1954 at 9:30 a. m. for the purpose of organizing the testimony of the various defendants in this case. The meeting will be attended by all the attorneys and witnesses representing the various defendants. I am sure that you will wish to attend this meeting and I therefore ask you to hold October 12 open for this purpose.

Bill Macey and Mel Yost are back in Washington this week appearing before the Federal Power Commission, and I will discuss this matter with them upon their return. In all probability both Mel and I will attend this meeting, and it sounds to me as though it will be well worthwhile. Mr. Howard informs me that the meeting will take place in the Ground Floor Conference Room of Shell in the Petroleum Building in Midland.

You will hear from us further on this matter within the next week.

Very truly yours,

W. F. KITTS, Attorney
Oil Conservation Commission

WFK/ir

SHELL OIL COMPANY
MIDLAND AREA

MAILING ADDRESS
P. O. BOX 1509
MIDLAND, TEXAS

GENERAL OFFICES
PETROLEUM BUILDING
MIDLAND, TEXAS

September 17, 1954

Mr. W. F. Kitts
Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

In Re: Phillips Petroleum Company v. Oil Conservation Commission, et al, No. 11422, District Court, Lea County, New Mexico.

Dear Sir:

It is planned that on Tuesday, October 12, there will be a meeting in Midland of the attorneys and the defense witnesses in the above captioned case for the purpose of organizing the testimony to be presented at the trial of the case. The meeting will be held in the Ground Floor Conference Room of Shell in the Petroleum Building at Midland, and will commence at 9:30 a.m.

We feel that it is most important that the attorneys for the Commission and the Commission's witnesses meet with the representatives of the defendant companies at this time, so that we may line out our case, and would appreciate word from you that you will attend accompanied by your witnesses.

I would appreciate it also if you would advise the others on the Commission and the Commission Staff who should be advised of this meeting so that it will not be necessary for me to send out other notices to the Commission.

I trust that this arrangement will be satisfactory and that I may have word that you will attend.

Very truly yours,

Paxton Howard

Paxton Howard, General Attorney

PH:AW

DASHKO BUILDING

TELEPHONE 3-2195

JOHN R. BRAND
DISTRICT JUDGE
FIFTH JUDICIAL DISTRICT
STATE OF NEW MEXICO
P. O. BOX 1176
HOBBS, NEW MEXICO

All Attorneys of record concerned.

Gentlemen:

In compliance with the order of the Oil Conservation Commission of the State of New Mexico in Case No. 1, Order No. R-1670, the hearing on objections to the above named Application will be held at 10 o'clock a.m., Wednesday, October 14, in my office at Hobbs.

Yours very truly,

John R. Brand
District Judge

IN THE DISTRICT COURT OF LEA COUNTY
STATE OF NEW MEXICO

Phillips Petroleum Company Plaintiff vs. Oil Conservation Commission of New Mexico et al., Defendants	)	No. 11422

NOTICES OF WITNESSES TO BE USED, THEIR ADDRESSES, AND SUMMARY OR NATURE OF THEIR TESTIMONY

TO PHILLIPS PETROLEUM COMPANY, SHELL OIL COMPANY, THE MAGNOLIA PETROLEUM COMPANY, AND THE SKELLY OIL COMPANY:

You are hereby advised, in accordance with instructions of the Court, that the names, addresses, and the nature of the testimony of the witnesses of the Oil Conservation Commission of New Mexico, which witnesses will testify in event the Court should rule that the testimony of the proposed Phillips' witnesses will be received in evidence, are as follows:

Stanley J. Stanley
Hobbs, New Mexico

The impracticability, dangers and mechanical infeasibility of dually completed oil wells at comparable depths, pressures, and under the circumstances surrounding the Phillip's Fonzo No. 1; the danger of reservoir damage from such dual completions, and unsoundness from conservation standpoint of dually completed oil wells under conditions existing with respect to Phillip's Fonzo No. 1.

E. V. Nestor
Hobbs, New Mexico

The Commercial possibility of the Wolfcamp Reservoir in the area involved in this action in the Denton field; also as to waste resulting from dual completion due to number and expense of workovers and possible communication between different reservoirs and greater expense and difficulties attendant to artificially lifting such wells.

B O. Carlson
Hobbs, New Mexico

C. A. Hull
Midland, Texas

R. P Moscript
Midland, Texas

The number and expense of workovers on dually completed wells and possible communication between different reservoirs and waste resulting therefrom and greater expense and difficulties attendant to artificially lifting such wells.

/s/ Mel Yost
W. F. Kellahin
Attorneys for Oil Conservation Commission, State of New Mexico.

CERTIFICATE

I hereby certify that I have this 23rd day of August, 1954, mailed a copy of the foregoing, postage prepaid, to Mr. Jason W. Kellahin, P. O. Box 361, Santa Fe, New Mexico, Mr. E. H. Foster, 501 First National Bank Bldg., Amarillo, Texas, Mr. Ross Madole, P. O. Box 900, Dallas, Texas, Mr. H. C. Kerr, P. O. Box 1650, Tulsa, Oklahoma, Mr. Paxton Howard, P. O. Box 1509, Midland, Texas and Seth & Montgomery, Santa Fe, New Mexico; they being attorneys of record in this cause.

Mel Yost
Attorney for the Oil Conservation Commission of the State of New Mexico.

[illegible]
[illegible]

Phillips Petroleum Company, Plaintiff,	
vs.	No. 1142[illegible]
Oil Conservation Commission of New Mexico et al., Defendants	

NOTICES OF WITNESSES TO BE USED, THEIR ADDRESSES, AND SUMMARY OR NATURE OF THEIR TESTIMONY

TO: PHILLIPS PETROLEUM COMPANY, SHELL OIL COMPANY, THE MAGNOLIA PETROLEUM COMPANY, AND THE SKELLY OIL COMPANY:

You are hereby advised, in accordance with instructions of the Court, that the names, addresses, and the nature of the testimony of the witnesses of the Oil Conservation Commission of New Mexico, which witnesses will testify in event the Court should rule that the testimony of the proposed Phillips' witnesses will be received in evidence, are as follows:

Stanley J. Stanley
Hobbs, New Mexico

The impracticability, dangers and mechanical infeasibility of dually completed oil wells at comparable depths, pressures, and under the circumstances surrounding the Phillips' Lonzo No. 1; the danger of reservoir damage from such dual completions, and unsoundness from conservation of adjoining dually completed oil wells under conditions existing with respect to [illegible] No. 1.

[illegible] Nestor
Hobbs, New Mexico

The [illegible] possibility of the [illegible] reservoir in the [illegible] possible [illegible] expense and [illegible] wells.

B. S. Garrison
Hobbs, New Mexico

C. A. Hall
Midland, Texas

A. P. Moscript
Midland, Texas

The number and expense of workovers on dually completed wells and possible communication between different reservoirs and waste resulting therefrom and greater expense and difficulties attendant to artificially lifting such wells.

Attorneys for Oil Conservation Commission, State of New Mexico.

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Attorney for the Oil Conservation Commission of the State of New Mexico.

TEXAS PACIFIC COAL & OIL COMPANY

MEMORANDUM BRIEF

THE NATURE AND SCOPE OF THE REVIEW BY THE DISTRICT COURT OF AN ORDER OF THE OIL CONSERVATION COMMISSION INCLUDING THE QUESTION OF WHAT EVIDENCE MAY BE PRESENTED UPON APPEAL.

This case represents the first appeal ever taken in the State of New Mexico from an order of the Oil Conservation Commission. It is taken under the provisions of the oil and gas conservation law of this State which was enacted in 1935 and which was re-enacted by the 1949 Legislature with certain amendments. Included in the amendments was one which changed the appeal and review sections under which this appeal is taken.

At the outset it would seem proper to state specifically the position of the Texas Pacific Coal and Oil Company in this case and its attitude concerning the power of the District Court to review matters decided by the Commission, including the nature of the evidence which may properly be heard by this Court.

The original application herein was filed by Amerada Petroleum Corporation and in its application it requested that it be granted an exception from the state-wide rules concerning the spacing of oil and gas wells. The general spacing program in New Mexico has for a number of years been upon a forty acre basis, and deviations from that spacing pattern have been granted from time to time upon application for an exception to the rule. It is of some significance to note that heretofore exceptions have been requested for spacing patterns for less than forty acres, but this appears to be the first instance in this State in which application has been made for an exception requesting a spacing pattern for more than forty acres. It should be noted in passing, that Amerada is not being forced by Commission or anyone else to drill on forty acre locations. Texas Pacific Coal and Oil Company is the owner of certain leases in the field here involved, and it entered the hearing before the Commission protesting the granting of the exception to the state-wide rule.

The Commission, after hearing the evidence, denied the application for the exception, by its order No. R-2, in which it found in effect that the evidence submitted by the applicant was insufficient to prove what the Commission considered to be necessary matters of proof for the granting of an exception to the state-wide rule. The applicant then filed its petition for rehearing setting out the respects in which it considered the Commission in error, as required by the statute, and upon the denial of the motion for rehearing it takes this appeal to the Court, in which appeal, under the statute, it is limited to the same questions which were presented to the Commission in its application for rehearing. There is no constitutional question presented in the petition for Review.

The first matter which Texas Pacific Coal and Oil Company would like to call to the attention of the Court, with the request that it be determined at this time, is the nature and extent of the review of the Commission's order which may be obtained before this Court. We consider this proposition fundamental, both from a substantive and a procedural point of view. It is a proposition which we raise at the outset, in order to avoid the possibility of delay in the disposition of this matter by the introduction of evidence and the inevitable objection to its admissiability. It is our position that the so-called "de novo" provisions in the New Mexico appeal statute violate the Constitution of the State of New Mexico, and that this Court, if review is to be granted, is limited upon review to the transcript of evidence before the Conservation Commission and only such other evidence as may bear upon the power of the Commission to act. It is our further position that this Court can only inquire into whether or not the decision of the Commission is supported by substantial evidence, or is arbitrary or capricious, or beyond the power of the Commission to make, or violates some constitutional right of the appellant.

Applicable Constitutional and Statutory Provisions

In order that the Court may bear in mind through this argument the basis of the position of the Texas Pacific Coal and Oil Company, we wish to call to the attention of the Court the constitutional and statutory provisions to which we will make reference and which we consider pertinent to this matter.

As has heretofore been state, the Oil Conservation Commission was created and its power defined by the re-enactment of the 1935 Statute by the 1949 Legislature, which Statute now appears at Chapter 69 of the 1949 Accumulative Pocket Supplement of the New Mexico Statutes 1941 Annotated. Section 69-210 of that Act defines that general powers of the Commission as follows:

> "The commission is hereby empowered, and it is its duty, to prevent the waste prohibited by this act and to protect correlative rights, as in this act provided. To that end, the commission is empowered to make and enforce rules, regulations and orders, and to do whatever may be reasonably necessary to carry out the purposes of this act, whether or not indicated or specified in any section hereof."

Section 69-211 enumerates certain specific powers of the Commission, including the one which is pertinent to this case by stating:

> "Apart from any authority, express or implied, elsewhere given to or existing in the commission by virtue of this act or the statute of this state, the commission is hereby authorized to make rules, regulations and orders for the purposes and with respect to the subject matter stated herein, viz:
>
> . . . . . .
>
> "(b) To fix the spacing of wells;
>
> . . . . . .

It should be apparent that the Legislature has delegated to the Oil Conservation Commission wide powers to deal with matters involving the production of oil and gas in this State, and that such powers are legislative powers which could be exercised by the Legislature itself or through committees, except for the fact that the Legislature obviously considered it more practical

to delegate these powers to an administrative body composed of the Governor of the State, the Commissioner of Public Lands and the State Geologist, as a member and Director. In connection with this legislative power invested in the Oil Conservation Commission, the provision of the Constitution of New Mexico relating to separation of powers must be considered. This provision is found in Section 1, Article III of the Constitution of the State, and is as follows:

> "The powers of the government of this state are divided into three distinct departments, the legislative, executive and judicial, and no person or collection of persons charged with the exercise of powers properly belonging to one of these departments shall exercise any powers properly belonging to either of the others, except as in this constitution otherwise expressly directed or permitted."

Certainly this is an unequivocal separation of power.

Finally, in considering this matter, it is necessary to realize that when the conservation act was amended by the 1949 Legislature, the provision for judicial review was completely revised in an effort to provide a "de novo" hearing before the Court. This statute, under which the present appeal is taken is found in Section 69-223 of the amended law, and it provides as follows:

> "(b) Any party to such rehearing proceeding, dissatisfied with the disposition of the application for rehearing, may appeal therefrom to the district court of the county wherein is located any property of such party affected by the decision, by filing a petition for the review of the action of the Commission within twenty (20) days after the entry of the order following rehearing or after the refusal or rehearing as the case may be. Such petition shall state briefly the nature of the proceedings before the Commission and shall set forth the order or decision of the commission complained of and the grounds of invalidity thereof upon which the applicant will rely; provided, however, that the questions reviewed on appeal shall be only questions presented to the Commission by the application for rehearing. Notice of such appeal shall be served upon the adverse party or parties and the commission in the manner provided for the service of summons in civil proceedings. The trial upon appeal shall be de novo, without a jury, and the transcript of proceedings before the commission, including the evidence taken in hearings by the commission, shall be received in evidence by the court in whole or in part upon offer by either party, subject to legal objections to evidence, in the same manner as if such evidence was originally offered in the district court. The commission

> action complained of shall be prima facie valid and the burden shall be upon the party or parties seeking review to establish the invalidity of such action of the commission. The court shall determine the issues of fact and of law and shall, upon a preponderance of the evidence introduced before the court, which may include evidence in addition to the transcript of proceedings before the Commission, and the law applicable thereto, enter its order either affirming, modifying, or vacating the order of the commission. In the event the court shall modify or vacate the order or decision of the commission, it shall enter such order in lieu thereof as it may determine to be proper. Appeals may be taken from the judgment or decision of the district court to the supreme court in the same manner as provided for appeals from any other final judgment entered by a district court in this state. The trial of such application for relief from action of the commission and the hearing of any appeal to the supreme court from the action of the district court shall be expediated to the fullest possible extent."

Thus, it will be seen that in this argument we must consider first, that the general powers of the Commission are derived from the Legislature and that the power to fix the spacing of wells has been specifically delegated to it. Second, that the Constitution of New Mexico contains a specific and unambiguous provision providing for separation of powers of government. Third, that the review statute, under which this appeal is taken, undertakes to authorize the court to conduct a "de novo" hearing, and to enter an order in lieu of the Commission's order, after hearing new and additional evidence which was not before the Commission.

General Applicable Principles of Administrative Law

Before proceeding with a discussion of the cases concerning the question here involved, we consider it proper to briefly mention some general principles of administrative law which are discussed in these cases and which we consider to be pertinent to the matter here under discussion.

As is stated in 42 American Jurisprudence, Public Administrative Law, Section 45:

> "The necessity for vesting administrative authorities with power to make rules and regulations because of the impracticability of the lawmakers providing general regulations for various and varying details of management, has been recognized by the court, and the power of the legislature to vest such authority in administrative officers has been upheld as against various particular objections.

Questions such as are present in the instant case arise not so much from the authority of the Legislature to confer power upon the administrative board, but rather upon the nature of the power exercised by the board and extent to which judicial review may be had. This proposition involves the question of whether the power exercised by the administrative body is legislative or judicial. The distinction between these types of powers is sometimes difficult to make, but in general it is, as stated in 42 American Jurisprudence, Public Administrative Law, Section 36, as follows:

> "Legislative power is the power to make, alter, or repeal laws or rules for the future, to make a rule of conduct applicable to an individual, who but for such action would be free from it is to legislate. The judicial function is confined to injunctions, etc., preventing wrongs for the future, and judgments giving redress for those of the past."

The broad general powers delegated to the Oil Conservation Commission by the statutes which have been quoted, coupled with specific power to regulate the spacing of wells indicates to us that this is a wide discretionary authority, a legislative authority granted by the lawmakers to the Oil Conservation Commission. It obviously affects the actions of persons in the oil and gas industry in the future and has no reference to the protection of private rights as of the present or for the redress against wrongs which have been done in the past. In other words it appears to us that this is clearly a legislative rather than a judicial function. This brings us to the meat of the proposition insofar as the general applicable principles of administrative law are concerned. As is stated in 42 American Jurisprudence, Public Administrative Law, Section 190:

> "It is a well settled general principle that non-judicial functions cannot be exercised by or imposed upon courts, and statutes which attempt to make a court play a part in the administrative process by conferring upon it administrative or legislative, as distinguished from judicial, functions may contravene the principles of separation of powers among the different branches of our government."

And in Section 191, American Jurisprudence, follows this line of reasoning by stating:

> "The statute which provides or permits a court to revise the discretion of a commission in a legislative matter by considering the evidence and full record of the case, and entering the order it deems the commission ought to have made, is invalid as an attempt to confer legislative powers upon the courts."

Decisions of the Courts of other States

There are several decisions of the courts of the western states concerning the power of the court to review the action of an administrative official or an administrative board. Before passing to the New Mexico cases, we would like to review briefly some of the language in these cases in other States which touch upon the subjects here involved.

The first case to which we wish to call the court's attention is the case of Manning V. Perry, 62 P. 2d 693 (Ariz.). This case involved an action between two parties who sought to obtain from the State Land Department a lease upon certain State land. After investigation and hearing, the Commissioner approved the application of one of the parties and the other party appealed. In the State of Arizona the Land Department consists of the Governor, the Secretary of State, Attorney General, State Treasurer, and State Auditor. After hearing this Land Department approved the decision of the Commissioner, and the party who had lost the application appealed to the court under the Constitution and statutes of Arizona. The case was tried in the superior court of one of the counties of Arizona without the aid of a jury and de novo as the statute seemed to contemplate that it should. The case was taken to the Supreme Court of Arizona upon appeal, the appelant contending that under the law of facts he was entitled to have his lease renewed. Concerning the question of the extent of the "trial de novo" as provided in the statute, the Arizona Supreme Court had this to say:

> "While the superior court on appeal from the Land Department tries the case de novo, it should not be forgotten that the court is not the agency appointed by law to lease state lands. The Legislature has vested that power in the Land Department. If it investigates and determines which of the two or more applicants appears to have the best right to a lease, its decision should be accepted by the court, unless

> it be without support of the evidence, or is contrary to the evidence, or is the result of fraud or misapplication of the law."

The Arizona court discussed with approval the decisions from the State of Wyoming which have held a similar vein:

> "In speaking of the functions of the court on an appeal from the Land Department it is said, in Miller v. Hurley, 37 Wyo. 334, 262 P. 238, 'the discretion of the Land Department in leasing the public lands should be controlling' except in a case of the illegal exercise thereof, or in the case of fraud or grave abuse of such discretion.' It was further said in that case: 'In the first place, nowhere in the Constitution or statutes is the district court or judge thereof, granted power to lease state lands. Both the Constitution and the statutes repose that power in the land board. In exercising such power, the land board exercises a wide discretion. (Citing Wyoming cases) If, by the simple expedient of an appeal from the decision of the land board, that discretion can be taken from the board and vested in the district court, as contended by appellant, then the discretion of the land board amounts to nothing on a contested case. It is an empty thing, a mere ignis fatuus'."

The Arizona court continues:

> "And, we may add, a practice which permits the court to substitute its discretion for that of the Land Department would give us as many leasing bodies as there are superior courts in the state, or fourteen in number, instead of one as provided for by the Legislature--an intolerable situation."

This same view is followed in Denver & R. G. W. R. Co. v. Public Service Commission 100 P. 2d 552 (Utah). In that case the applicant for a motor carrier permit and the protestant both applied for rehearings after the Public Service Commission of Utah had granted an application with certain limitations. The matter was appealed to the District Court under the statutes of Utah. The court called attention to the fact that prior to the enactment of the 1935 statute the court's review of the action of the commission was limited to questions of law and the commission's findings of fact were final and not subject to review. However, in 1935 the Legislature changed the statute and provided that the District Court" shall proceed after a trial de novo." The Arizona court in considering the extent of the authority of the District Court had this to say:

> "The expression 'trial de novo' has been used with two different meanings (3 Am. Jur. p. 356, sec. 815): (1) A complete retrial upon new evidence; (2) a trial upon the record made before the lower tribunal. Locally we find an example of the first in Section 104-77-4, R.S.U. 1933, covering appeals from the justice court to the district court--the case is tried in the district court as if it originated there. An example of the second meaning we find locally in our treatment of equity appeals wherein we say that the parties are entitled to a trial de novo upon the record."

In considering the effect of the amended Utah statute, as applied to these two different meanings, the court said:

> "To review an action is to study or examine it again. Thus, 'trial de novo' as used here must have a meaning consistent with the continued existence of that which is to be again examined or studied. If, in these cases, the first meaning were applied to the use of the term 'trial de novo' then one could not consistently speak of it as a review, as the Commission's action would no longer exist to be re-examined or restudied. There would be no reason for making the Commission a defendant to defend something that had been automatically wiped out by instituting the district court action.
>
> "What the Legislature has done by Section 9 is to increase the scope of the court's review of the record of the Commission's action to include questions of fact as well as questions of law. A submission to the court of the application, together with testimony other than the record of the testimony before the Commission was not contemplated. The Legislature had in mind the second meaning when it used the word 'trial de novo' here."

In the Wyoming case of Banzhaf v. Swan Co. 148 P. 2d 225, the Wyoming Supreme Court had before it an appeal from the District Court of a Wyoming county, which had reversed the decision of the State Board of Land Commissioners on the question of to whom a state lease upon certain lands should be issued. Conflicting applications were filed in the office of the Commissioner of Public Lands. The Commissioner of Public Lands awarded the lease to Banzhaf, and upon appeal to the Board of Land Commissioners under the statute that award was set aside and a lease issued to Swan Company. Upon appeal to the District Court, the District Court reversed the Board of Land Commissioners, and the appeal here is taken by Banzhaf from the order of the District Court.

Under the Wyoming Constitution certain state officials constitute the Board of Land Commissioners and have the power to lease state lands. The statute concerning the leasing of state lands provides that any party aggrieved by the decision of the board may have an appeal to the District Court, and upon the appeal the contest proceeding "shall stand to be heard and for trial de novo, by said court."

In Miller v. Hurley, 262 p. 238, the court said as follows:

> "In the former decisions of this court above set forth, it has been held that the discretion of the land board is a substantial things, and cannot be interfered with by the court, except in case of fraud or grave abuse, resulting in manifest wrong or injustice. Yet if appelant's contention were upheld, it would be necessary to hold that the discretion of the land board, conferred on it by the constitution and statutes of this state, and heretofore recognized by the decisions of this court, is completely wiped out by an appeal. We cannot concur in such contentions, but hold that that discretion should be controlling, except in the case of an illegal exercise thereof, or in case of fraud or grave abuse of such discretion."

The case which we consider to have almost the same factual situation as the case here involved is the recent case of California Co. v. State Oil & Gas Board, 27 so. 2d. 542 (Miss.) This was an appeal to the Supreme Court of Mississippi from a final judgment of the Circuit Court of Adams County, Mississippi, which had dismissed an appeal taken by the California Company from an order of the State Oil & Gas Board. The order had granted to T. F. Hodge, the appellee, an exception to general rule concerning the spacing of oil wells, which was the same type of order as is here involved. The Circuit Court had dismissed the appeal on constitutional grounds and no opportunity was offered the California Company to offer proof as to whether the Oil & Gas Board should have passed such an order. The Mississippi Statute at Section 6136, Code 1942, provides that anyone "being a party to such petition may appeal from the decision of the board within ten days from the date of the rendition of the decision to the circuit court of Hinds county, or of the county in which the petitioner is engaged in business or drilling operations . . . and the matter shall be tried de novo by the circuit court and the circuit court shall have full authority to approve or disapprove the action of the board."

The question raised here was that the requirement that the matter be tried de novo unconstitutional and void because it undertook to confer nonjudicial functions upon the circuit court. It should be noted here that the Mississippi statute does not go as far as the New Mexico statute, since it gives the court authority to approve or disapprove while our statute gives the court authority to modify, or in fact to enter any order in lieu of the Commission's order which the court deems to be proper. The Mississippi court called attention to the fact that the provision of the Mississippi statute for a de novo trial was inconsistant with the provision authorizing the court to approve or disapprove the action of the board. No such inconsistency appears to exist under the New Mexico statute. The Mississippi court found it possible under their statute "to hold the de novo provision unconstitutional but to sustain the power of the court to 'approve or disapprove' the action of the board." In so doing the court had this to say:

> "The decision of the foregoing questions is found to involve the question (1) or whether or not a trial de novo in the Circuit Court in the instant case would permit the Circuit Court to substitute its own findings and judgment for that of the State Oil and Gas Board on a purely legislative or administrative matter, and, (2) if so, whether or not the right of appeal should nevertheless be preserved by striking down the provision for a trial de novo and retaining the power of the Circuit Court to merely approve or disapprove the action of the State Oil and Gas Board, upon the theory that to permit said Court on a trial de novo to substitute its own ideas as to the proper spacing of oil wells for those of this administrative or legislative body is unconstitutional, while the mere right to approve or disapprove its action is a valid exercise of judicial power on a hearing as to whether or not the decision of said Board in that regard is supported by substantial evidence, is arbitrary or capricious, beyond the power of the Board to make, or violates some constitutional right of the complaining party.
>
> "We are unable to say that except for the provision granting a trial de novo the Legislature would not have given the right of appeal at all from any action of the Oil and Gas Board. It has made provision for appeals in many instances from the decisions of administrative boards created by statute in this State without requiring that the testimony taken before such boards be reduced to writing for such purpose. But it is unnecessary that we shall here digress to illustrate.
>
> "The Legislature itself had the right in the first instance to prescribe the general rule and regulation as to the spacing of oil and gas wells and to provide for exceptions thereto under given circumstances, and it had the right to delegate this legislative power to a special administrative agency, composed of the State Oil and Gas Supervisor, who is to be a competent

> petroleum engineer or geologist with at least five years experience in the development and production of oil and gas, and therefore presumed to have expert knowledge as to the proper rules and regulations for the spacing of oil and gas wells, and also the Governor, Attorney General, and State Land Commissioner, as it has done by Section 5 of Chapter 117, Laws of 1932, now Section 6136, Code 1942. And it is to be conceded that in adopting such general rule and regulation, the Oil and Gas Board was acting in a legislative capacity; and we are of the opinion that in granting the exception involved in the instant case to the said general rule and regulation the said Board was likewise acting in at least a quasi legislative capacity. In order that any hearing shall be judicial in character, it must proceed upon past or present facts as such, which are of such nature that a judicial trial tribunal may find that they do or do not exist, while in making these conservation rules and the exceptions thereto the larger question is one of state policy. So that what is to be made of the facts depends upon their bearing upon a legislative policy for which persons of special training and special responsibility have been selected.

There appeared to be little doubt in the minds of the Mississippi court, and there is little doubt in ours, that if the Legislature had seen fit it could have adopted this general spacing rule and regulation and could also have heard testimony as to whether exceptions should be provided for, and the fact that it may have conducted such a hearing would not have rendered its action judicial. The Mississippi court concluded that:

> 'And since the Legislature had the power to delegate this function to a Board composed of the officials hereinbefore mentioned, we are of the opinion that the action of said Board in adopting both the general rules and regulations, as provided for by the statute, and the exceptions thereto after a hearing, was as heretofore stated likewise legislative; that, therefore, the Circuit Court would be without constitutional power on appeal to substitute its own opinion as to what are proper oil conservation measures for that of the State Oil and Gas Board, on a legislative or administrative question. Since the separation of executive, legislative and judicial powers,, ... , forbid,"

In view of the presumption of validity of statutes, the Mississippi court held that the authority of the court to approve or disapprove the action of the board may be upheld by

> "limiting its authority in that behalf to the right to conduct a hearing to the extent only of determining whether or not the decision of the administrative agency is supported by substantial evidence, is arbitrary or capricious, beyond the power of the Board to make, or violates some constitutional right of the complaining party....."

The court further held that in determining these questions the circuit court would be acting judicially and to that end it might hear evidence to the extent of determining what state of facts the administrative body acted on. But the court specifically limited the evidence which might be introduced by saying:

> "But to allow an appellant to present to the Circuit Court a different state of case or one based on additional facts would merely tend to becloud the issue as to whether or not the administrative body had based its decision on substantial evidence, had acted arbitrarily or capriciously, beyond its power, or violated some constitutional right of the party affected thereby. In other words, to permit a trial de novo in the Circuit Court on a legislative or administrative decision of the State Oil and Gas Board, within the common acceptance of the term 'tried de novo' would permit a party to withhold entirely any showing of these facts, as he contends them to be, from the original board composed of experts and of those charged with the responsibility of a great public policy of the State, and wait until on appeal when he will make his full disclosure for the first time before none-experts in that field to determine as to the proper spacing of oil and gas wells. In such case the Court would be departing from its proper judicial function into the realm of things about which it has no such knowledge as would form the basis for intelligent action."

After disposing of the decisions of the Texas Courts, as not applicable to the Mississippi statute because based upon a statute providing for an independent action rather than an appeal, the opinion as a part of its conclusion recites:

> "Therefore, the only sound, practicable or workable rule that can be announced by the Court is to hold that when the appeal is from either a general rule and regulation or from an exception granted thereto, the Court to which the appeal is taken shall only inquire into whether or not the same is reasonable and proper according to the facts disclosed before the Board, that is to say, whether or not its decision is supported by substantial evidence or is arbitrary or capricious, or beyond the power of the Board to make, or whether it violates any constitutional right of the complaining party."

The concurring opinion of Justice Griffity considers the question of the power of the Court and of the type of evidence which may be presented concluding as follows:

> "The result is the conclusion that the legislature could not confer upon either of the said judicial courts the original authority in either respect above mentioned, and since it could not do so directly, it could not do so by the indirect device of a trial de novo on appeal; and thus there is the further result that all the authority which could be conferred on the courts would be of a review to determine whether the Oil and Gas Board in its order acted within the authority conferred on it by statute, and if so, then whether in making its order it did so upon facts substantially sufficient to sustain its action.
>
> "The essential nature of such a review is such that it must be of what the Board had before it at the time it made its order. It would be an incongruity as remarkable to permit another different record to be made up on appeal to the circuit court as it would be to allow another and a different record to be presented to this Court on an appeal to it. The question is, and must be, what did the Oil and Gas Board have before it, and all this the majority opinion has well and sufficiently pointed out.
>
> "But what the Oil and Gas Board had before it is best and most dependably shown by a certified transcript made by a competent person in precise duplication of what was there heard and what there transpired. It is an incongruity in merely another phase which omits such a transcript, and thereafter would call witnesses to prove what was heard by and what transpired before the Board, as is allowed to be done by the reversal in this case..."

It appears to us that these cases, particularly the last one, which involved an appeal from a board similar to our Oil Conservation Commission, clearly reflect that the most recent decisions leave to the administrative bodies the discretion which has been given them by the legislature, and that the courts confine themselves solely to the question of whether there is substantial evidence in the record before the Commission on which the Commission's decision can be based, or, in other words, whether the administrative body acted arbitrarily. It further appears that since this substantial evidence rule is the basis for the extent of review, the transcript

of evidence before the Commission is the only evidence which can logically be considered.

New Mexico Law Concerning Appeals and Reviews Of Orders of Administrative Bodies

We come now to the New Mexico law concerning appeals from reviews or orders from administrative bodies, which we consider to bear out our position as to the power of this court to review a decision of the Oil Conservation Commission. As has heretofore been stated, the pertinent provision of the Constitution of New Mexico is contained in Section 1, Article III and is as follows:

> "The powers of the government of this state are divided into three distinct departments, the legislative, executive and judicial, and no person or collection of persons charged with the exercise of powers properly belonging to one of these departments, shall exercise any powers properly belonging to either of the others, except as in this constitution otherwise expressly directed or permitted."

Until rather recent years, the cases in New Mexico concerning the powers of the courts to review decisions of administrative bodies have been confined primarily to appeals from the action of the State Corporation Commission. The Constitution of New Mexico is unique in that it contains the provision for the powers of the Corporation Commission and further provides for removal of matters covered by the constitutional provision to the Supreme Court of New Mexico, and:

> "In the event of such removal by the company, corporation or common carrier, or other party to such hearing the Supreme Court may, upon application in its discretion, or of its own motion, require or authorize additional evidence to be taken in such cause; but in the event of removal by the commission, upon failure of the company, corporation, or common carrier, no additional evidence shall be allowed.....
>
> ".....the said court shall have the power and it shall be its duty to decide such cause on their merits, and carry into effect its judgments, orders, and decrees made in such cases, by fine forfeiture, mandamus, injunction and contempt or other appropriate proceedings."

(Article II Section 7 Constitution of New Mexico)

As the functions and duties of the Corporation Commission have grown, it has become necessary to enact a statute supplementing the Constitution, which provides in effect that a motor carrier being dissatisfied with an order of the Commission, which order is not removable directly to the Supreme Court under the constitutional provisions, may:

> "Commence an action in the district court for Santa Fe County against the Commission as defendant, to vacate and set aside such order or determination, on the ground that it is unlawful or unreasonable. In any such proceeding the court may grant relief by injunction, mandamus or other extraordinary remedy....."

The Statute further provides that:

> "The same shall be tried and determined as other civil actions without a jury."

(New Mexico Statutes 1941 Annotated 68-1363)

It should be borne in mind that some of the cases cited are under the constitutional provision, and some are under the statutory provision.

The first case in New Mexico appears to be Seward v. D. & R. G. 17 N.M. 557, which was a proceeding under the constitutional provision, moving directly from the Commission to the Supreme Court. In this case the matter was removed by the Commission when the carrier refused to comply with the order, and the court refused to allow additional evidence under the Constitutional provision. The Attorney General took the position that the Supreme Court had a right to form its independent judgment in the matter and was not confined to a consideration of the reasonableness and lawfulness of the order of the Commission. He based his position upon the language in the statute quoted above, that the court shall have "the power and it shall be its duty to decide such cases upon their merits." The Supreme Court had this to say:

> "Now if the contention is sound then the provision just quoted invests this court with legislative power to fix rates. There is no doubt but that the people of the state, by constitutional provision could confer such power upon the judges of the Supreme Court. If they saw fit they might combine all the power of government in one department, but such action would not be in accord with the settled policy of the states of the Union, where it has been the studied purpose to, so far as possible, keep separate the three great departments, and we should not so construe the provision as conferring legislative power upon this body, unless compelled to do so by clear and unmistakable language."

The court held that the only thing to be decided upon the appeal by the Commission was the reasonableness and lawfulness of the order, and they concluded that if the court finds the order reasonable and lawful, it enters a judgment to that effect, but if it finds it unlawful and unreasonable, it refuses to enforce it and the State Corporation Commission may proceed to form a new order under its rule.

This proposition was further discussed in Seaberg v. Raton Public Service Co. 36 N. M. 59; 8 P. 2d 100, in which the petitioner had removed a matter before the Corporation Commission directly to the Supreme Court, and the Corporation Commission filed a motion to dismiss. The facts of the case are not particularly pertinent to the present question, but some of the language of the court indicates the position which it was quick to take in these matters. We quoted from the case as follows:

> "The proceeding of removal is not for the review of judicial action by the commission. It is to test the reasonableness and lawfulness of its orders. The function of the Commission is legislative; that of the court, judicial. The Commission is not given power to enforce any order; it being merely a rate-making or rule-making body, doing what, if there were no commission, the legislature alone could do. The court, on the other hand, can make no rate or rule, since it lacks the legislative power."

Perhaps the most complete discussion of the matter arose in the case of Harris v. State Corporation Commission 46 N. M. 352 P. 2d. 323, which was an appeal under the statute to the district court of Santa Fe county. The carrier had been granted a certificate and another carrier, adversely affected, appealed to the district court. The appeal to the district court was taken by way of a complaint filed by the protestant. At the trial, the plaintiff [illegible] Prior to the hearing before the Com-

mission, introduced new evidence by way of testimony of seven witnesses. Upon conclusion of the evidence the court made many findings contrary to those of the Commission and concluded, as a matter of law, that the action of the Commission was unlawful and unreasonable. The first question discussed was the scope of judicial review provided for in the statute. The court goes into a rather exhaustive review of the New Mexico authorities and discusses several Law Review articles concerning the subject. Some of its concluding remarks are as follows:

> " When our Legislature enacted Ch. 154, L. 1933, it declared its purpose and policy to confer upon the Commission the power and authority to make it its duty to supervise and regulate the transportation of persons and property by motor vehicle for hire upon the public highways of this state and to relieve the undue burdens on the highways, and to protect the safety, and welfare of the travelling and shipping public and to preserve, foster and regulate transportation facilities...
>
> "Counsel for Appellee contends that in the removal of a cause pending before the Commission under Sec. 51, etc. of the Act, the trial before the District Court is a trial de novo. This view is repelled distinctly by what we said in the Seward Case.....
>
> "Even where statutes of other states have said that upon judicial review of administrative or legislative acts the trial shall be de novo, some courts have held such provision unconstitutional, others hold that the de novo provision is limited to the ascertainment by the court of whether the jurisdictional facts exist and whether there had been due process, and whether the Commission had kept within its lawful authority.
>
> "That question of constitutional right and power raised by administrative action must be tried de novo so that the court may reach its own independent judgment on the facts and the law without being bound by the rule of administrative finality of the facts and that additional evidence may be introduced so that these questions of constitutional right and power need not be decided on the administrative record alone, may be conceded."
>
> "We hold that the District Court erred in receiving and considering testimony other than that which had been produced at the hearing before the Commission."

The most recent case on this subject is New Mexico Transportation Co., Inc. v. State Corporation Commission, 51 N. M. 59; 178 P. 2d 580, in which the Commission affirmed the position taken in Harris v. State Corporation Commission, supra, and refused to disturb an order of the State Corporation Commission. The Court said:

> "Following the rules there announced, we are unable to say from an examination of the record that the order of the Commission granting these certificates was either unlawful or unreasonable. It is not sufficient that we might have reached a different conclusion."

This matter has also been discussed in general in cases arising out of the enforcement of the liquor laws of New Mexico by the Bureau of Revenue. Out statutes authorize the Commissioner of Revenue to establish a Division of Liquor Control and to appoint a chief of this division to administer the powers and duties of it.

(New Mexico Statutes 1941 Annotated, 61-501 to 61-525)

Among powers given to the Division of Liquor Control is the power to issue, revoke, cancel or suspend licenses.

There are different appeal provisions from orders referring to the issuance of licenses and those referring to cancellation or revocation of licenses. The provisions relative to appeal of orders concerning issuance of licenses are found in Section 61-516 of New Mexico Statutes 1941 Annotated. This section originally provided as follows:

> "Any person, firm or corporation aggrieved by any decision made by the chief of division as to the issuance or refusal to issue any such additional license may appeal therefrom to the district court of Santa Fe County, by filing a petition therefor in said court within thirty (30) days from the date of the decision of the chief of division, and a hearing on the matter may be had in the district court. Provided, however, that the decision of the chief of division shall continue in full force and effect, pending a reversal or modification thereof by the district court."

In 1945 the provision was amended by adding the words "which hearing, shall be de novo."

The section of the statute dealing with revocation and suspension of licenses, and appeals from such orders, is Section 61-605, New Mexico Statutes 1941 Annotated, which provides, among other things, that:

> "The matter on appeal shall be heard by the judge of said court without a jury, and such court shall hear such appeal at the earliest possible time granting the matter of the appeal a preference on the docket. The judge, for good cause shown may receive evidence in such proceedings in addition to that appearing in the record of hearing and shall act aside and void any order or finding which is not sustained by, or has been overcome by, substantial, competent, relevant and credible evidence."

This section of the statute has not been amended to provide for a de novo hearing.

In the case of Floeck v. Bureau of Revenue, 44 N. M. 194; 100 P 2d 225, an appeal was taken under the section relating to cancellation of a liquor license, Section 61-605 New Mexico Statutes 1941 Annotated. Some question was raised as to the Constitutionality of the liquor control act, but the court did not pass upon that question. It did, however, have this to say:

> "Assuming the constitutionality of Sec. 1303, it did not undertake to vest in the district court the administrative function of determining whether or not the permit should be granted. It gave the court authority only to determine whether upon the facts and law, the action of the Commissioner in cancelling the license was based upon an error of law or was unsupported by substantial evidence or clearly arbitrary or capricious. (Ma-King Products Co. v. Blair, 271 U. S. 479, 46 S. Ct. 544, 70 L. Ed. 1046); otherwise it would be a delegation of administrative authority to the district court in violation of the Constitution. Bradley v. Texas Liquor Control Board, Tex. Civ. App., 108 S. W. 2d 300; State v. Great Northern Ry. Co. 130 Minn. 57, 153 N. W. 247, Ann. Cas. 1917B. 1201.
>
> "The New Mexico Liquor Control Act is an exercise of the police power of the state, for the welfare, health, peace, temperance and safety of its people. It prescribes the terms and conditions upon which licenses shall be issued and the grounds and procedure for their cancellation; all of which are made purely administrative."

Apparently the question was not raised in this case as to the introduction of new evidence.

However, in the case of Chiordi v. Jernigan 46 N. M. 396; 129 P. 2d 640 this same statute was under consideration. After revocation of his license, a licensee appealed to the district court of Santa Fe County. In discussing the authority or jurisdiction of the district court, the Supreme Court had this to say:

> "No provision is made on appeal for trial de novo, and jury trials are specifically excluded. It is provided that the judge for good cause shown may receive additional evidence. It is obvious that he must review the evidence taken in the hearing before the Chief of Division. As the trial is not de novo the Chief of Division's decision on the facts must be reviewed as he heard it, and it could not be if additional evidence was authorized upon the question of whether appellee was the party in interest. It is our conclusion that the new evidence which may be admitted must be confined to questions of whether the Chief of Division acted fraudulently, capriciously or arbitrarily in rendering his decision. Ma-King Products Co. v. Blair, supra; Floeck v. Bureau of Revenue, supra; Texas Liquor Control Board v. Floyd, supra.
>
> "The proceedings before the Chief of Division, while quasi judicial, were essentially administrative. The questions before the district court and here, are questions of law. They are, whether he acted fraudulently, arbitrarily or capriciously in making his order, and, whether such order was supported by substantial evidence, and generally, whether the Chief of Division acted within the scope of the authority conferred by the liquor control act."

It should be noted that some of the conclusions appear here to be based upon the fact that there is no provision for a trial de novo under this section of the statute.

It may have been this language which prompted the Legislature of 1943 to insert in Section 61-516 New Mexico Statutes 1941 Annotated, which is the section dealing with appeals refusing to issue licenses, the de novo provision. As has been noted above, however, this provision was not inserted in Section 61-605.

In the recent case of Maxbrough v. Montoya, 214 P. 2d 769, the Supreme Court of New Mexico was called upon to pass upon the effect of the insertion of the de novo provision in Section 61-516, New Mexico Statutes 1941 Annotated. As will be recalled this de novo provision was inserted after the Floeck and Chiordi cases were decided. The Court again called

attention to the fact that the Chief of the Liquor Division is given wide administrative judgment and discretion with respect to new licenses, and that the statute does not provide for formal hearing, and there is no requirement that he may only consider evidence that would be admissible in a court hearing. There is likewise no limitation upon evidence before the Oil Conservation Commission. The Court, in concluding that the de novo provision does not change the fundamental proposition of limitation of judicial review, had this to say:

> "We are further committed to the doctrine that the courts may not overrule the acts of administrative officers on matters committed to this discretion unless their actions are unlawful, unreasonable, arbitrary, capricious, or not supported by evidence."

The Court said further:

> "The applicant says this rule no longer obtains since the provision for a hearing de novo was written into the liquor law in 1945. A sufficient answer to this contention is found in Floeck case, supra, where in speaking of the powers of the District Court on appeal under the 1937 liquor act, we said: 'Assuming the constitutionality of Sec. 1303, it did not undertake to vest in the district court the administrative function of determining whether or not the permit should be granted. It gave the court authority only to determine whether upon the facts and law, the action of the Commissioner in cancelling the license was based upon an error of law or was unsupported by substantial evidence or clearly arbitrary or capricious (Ma-King Products Co. v. Blair, 271, U. S. 479, 46 S. Ct. 544, 70 L. Ed. (1046); otherwise it would be a delegation of administrative authority to the district court in violation of the Constitution.'
>
> "See also the case of Mervis v. State Corporation Commission, 46 N. M. 392, 129 P. 2d 328."

It is true that the statutes for appeal from orders of the Commissioner of Public Lands, Section 7-867 New Mexico Statutes, 1941 Annotated, provide for trials de novo, but we find no cases in which the question of extent of review was raised.

CONCLUSIONS

Based upon the decisions and authorities cited, it is the position of Texas Pacific Coal and Oil Company that the nature and scope of the review by this Court of orders of the Oil Conservation Commission, including the question of what evidence may be presented, is limited as follows:

1. In view of the apparent attempt to delegate non-judicial functions to this Court, the review provisions of the statute are unconstitutional unless limited by the Court to the affirming or vacating of the order of the Commission.

2. This court is limited upon review to a determination of whether the action of the Commission was unsupported by substantial evidence or was clearly arbitrary or capricious.

3. In making this determination this Court cannot pass upon the Commission's action unless it limits itself to the transcript of evidence before the Commission.

Respectfully submitted,

ATWOOD, MALONE & CAMPBELL

By_____

EUGENE T. ADAIR

Attorneys for Protestant,
Texas Pacific Coal & Oil Company.

(Rule 12 b6)

Rule 12(b)

Rule 19 - Necessary parties

2 Moore 2256 - Effect of
199 Fed 203 Affidavits, depositions.

Young v. Bowell N.C. 199 Fed 203

6 Cyc. of Fed. Proced. p 471 (sec. 21.69)
Indispensable Parties - jurisdictional.

6 Cyc. 480-61 - Definition of "indispensable" and "necessary"

6 Cyc. 486 (sec 21.77)
- Adding indispensable parties.
Court may do so.

Rule 19(c)

Underfield Packing Co. 29 Fed. Supp. 705

Cyclopedia P. 471

472

473 Act under Rule 19. Motion of Defendant to dismiss for failure to make an indispensable party. Held that the motion should be denied. Where the Court is satisfied that the Plaintiff cannot obtain service upon the absent party, the Court should retain the case and hold it until the Plaintiff can obtain service upon the absent party, or until the Plaintiff should elect to proceed against the defendant who is before the Court. Where the Court finds that the absent party is not indispensable to the determination of the controversy between the parties before the Court, the Court should proceed to determine the controversy between the parties before the Court.

2. 3 Cyc. 701

474 The

Cyc. P. 477

478 [illegible]

Also 480 - "Equity rule in general."

481 - Reason for - those who finance a cause in order to adjudicate it on their behalf

* 482 [illegible]

fail to [illegible] [illegible] [illegible] ... consent ~~[illegible]~~ will [illegible] [illegible] ... to [illegible] ... for [illegible] indispensable

Claim of severability 29 Calif. L. Rev. 731

P. 484 Joint owners of [illegible].

But — if a person has a claim which is a joint, undivided or common claim with others, and not separable among themselves [illegible] [illegible] must be brought by all as a true class action

Drescher v. [illegible] 81 F. Supp. 157

485 The absence of indispensable parties is not waived by failure to object.

It is, accordingly, the duty of the appellate court ex mero motu [illegible] point not made in the court below, to reverse and remand a case where indispensable parties are missing, and it has recently been said to be the duty of the reviewing court to protect the interests of property [illegible] [illegible] [illegible] [illegible] the [illegible] [illegible] distribution of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] indispensable parties [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

496 [illegible] [illegible] [illegible] indispensable parties to litigation affecting [illegible] [illegible] [illegible] [illegible] property.

But [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

498 Ordinarily all [illegible] joint
[illegible]

503 When a title to land or other property is
[illegible], the person relinquishment
all be [illegible]
Husband or wife or other party who could
from wife sought to [illegible] right and title in
oil and gas lease. 166 Fed 466

507 Partners or co-tenants in real estate are
indispensable parties in an action for partition,
as their co-tenants or partners or [illegible] or
Arizona a accounting must [illegible] an
a [illegible]

De Arnett

Pierce v. Mercantile Agency 1897

10

Lee [illegible] v. Chas 31 NM 543, 249 P. 100

47 ALR 1016

Langston v. Whitlock 33 NM 200 [illegible]

[illegible]

[illegible] 34 NM 28 [illegible]

Association

Not [illegible]

Effect of Decision. Decision that the husband [illegible] that the management of community property, and party indicted only, against [illegible] before trial, or at arraignment, and against [illegible] the party.

31 C.J. 140

McKay see 10.11 to Owner see 1241

Cole Realty Co. v. [illegible] 49 NM 472

46 NM 168 (155 ALR 293)

Jackson v. Petroleum [illegible] 48 N.M. 332, 151 P.2d 337

155 ALR 293

"No head of community [illegible] to control."

Law [illegible] management [illegible]

See Director v. Kerr 35 NM 45 259 Pac. 1049

Floor [illegible] Ford v. Ford

Jenkins v. Hodges 46 NM 168 [illegible]

By [illegible] husband [illegible] management of [illegible] property [illegible] management."

Hendricks v. Hendricks 37 NM 51 226 Pac. 464

Complaint for [illegible] Community [illegible] New Mexico [illegible] Office [illegible] Secretary of State [illegible] transfer [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

Dr. Desperado Parties

45 24

108 - 1351

[illegible] of help.

[illegible] of the statute [illegible]

[illegible] legislative intent [illegible] longer than [illegible] of the statute.

Obviously, the wife is not a formal party to the suit. If she is to be [illegible] thereby subjected to the statute's [illegible] it must be as a matter of construction. But statute says "an opposite party to the suit." Not an actual party to the suit.

Mrs. Ellen Ward

My objection to the holding that the wife is a [illegible] within the meaning of the statute is that [illegible] statute's construction upon which the majority has placed them. It is not the wife who actually [illegible] but [illegible] and [illegible] of the community, acting [illegible] of the opposite party to the suit."

Dillard v. State Tax Com. DNVM 12, 201
P 2d 375

Broad language, quoting U.S. Supt. Ct., but to consider Wash. to decide

Lodi v. 87 P. 839 - Wash. case v. homestead

McKay 1071 - Tho changes ought ignored legislation relate almost entirely to land laying the foundation of statutory estate in land.

31CJ 148 - The right of the husband to manage community property is not such a vested right to his status as husband and may be modified by legislation to manage and control community property.

42 C.J. 4 - no?

[illegible] 142 N.M. 1; 11 N.M. 28; LRA [illegible]

Cerrillos Mag. Mining 199 P. 1011, 27 N.M. 1

In this jurisdiction a mortgage on real estate is merely security for the payment of a debt, leaving the legal title in the mortgagor pending foreclosure. Colorado Coal & Iron Co. 158 P. 978, 21 N.M. 575, Ann. Cas. 1918 E, 1011

But special property vested in mortgagee
Arizona Nat. B. White 281 P. 702,
34 N.M. 602

Duffield v. Hubbell 134 P. 1134,
36 N.M. 113

Page [illegible]
Index 319

Vol. [illegible] 101

Pa. [illegible] 101

[illegible] 46

[illegible]

Circle v. Bateman [illegible] 8 21 N.M. [illegible]

10. It has been held in this jurisdiction, and it is
11 now the settled law that a mortgage of
real estate is a pledge or security for the payment
of a debt, leaving the legal title in the mortgagor.
Stearns - Page Co. v. Dyer and Madrid Co. 14 N.M. 300

Coteg (4p 456) Notary Case. The mortgagee has
no interest in the land mortgaged. He has a lien upon
it for the security of his debt.

Palma v. City of Albuquerque 19 N.M. 285, 142 P 909

4 A deed conditioned to pay a debt is treated as a
5 ~~mortgage~~ security for a debt will be regarded
8 and treated as a mortgage.

A mortgage, generally speaking, is a conveyance
of real estate, or some interest therein, defeasible
upon the payment of money or ~~of~~ the performance
of some other condition.

Mangas v. Mining 27 N.M. 261 [illegible] 1011
Similar to foregoing

CAN
[redacted] 11
REF
MOR
ALIVE

Commercial Mortgage Co. v. White et al
34 NM 82, 287 P. 702

[illegible] of personal property
[illegible]

Dr. New Mexico [illegible] mortgage
permits. 32 NM 469, 257 P. 621; 31 NM 249, 242
P. 1066; 29 NM 472, 1[illegible]; 14 N.M. 500,
93 P. 706

Under this type of the general property in the
thing mortgaged remains with the mortgagor, and
a lien upon the property vests with the mortgagee.
The mortgagee acquires no title to the
property nor [illegible] security for the debt.

Griffith v. Hamble 40 NM 18, 52 P.2d 12

"Much of [illegible] is [illegible] founded
upon the [illegible] and [illegible] the [illegible]
delinquent mortgagor [illegible] with [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]

Look after
Spanish Dollar.

Brasher Shirley STUHL

Look up

'12 Ariz 662

Rincon Central Railroad

661. Enrichment capable of being produced.

54 NM 91, 214 Pad 769

To permit the Court to amend or modify an order of an administrative agency is repugnant to the fundamental law providing for separation of powers of executive, legislature and judicial

Transcontinental Bus System v. State Corp. Commission 71 Pad 829, 66 NMex

Davis Division case, 56

Yarbrough v. Montoya 54 NM 91, 214 Pad 769

151
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Land Office closed 8-8-67

Collingswood Dairy v. Milk Control Comm.
300 N.J. 15, 184 A.2d 775, 10 ALR 1047

The plaintiff of the Pa. Milk Co. Act
[illegible] of Milk Control Commission. The Court
may receive additional [illegible]
dealers and producers would be at liberty
to withhold [illegible]
by the Commission at the [illegible]
that said [illegible]
[illegible]
may receive [illegible]
to [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Jaffe v. State Dept. of Health 135 Conn. 397
644 A 2d 330

Physician
Boards

Under the division of powers between the branches of government provided in our Constitution, adjudicative function as such cannot be vested in the courts. The revocation of a certificate of registration granted to a physician is an adjudicative matter unlike the original grant of it. Neither mandamus nor the grant of an appeal can authorize a court to determine upon independent judgment the question of whether a certificate should be revoked; the appeal can go so far as judicial review and no further. Appeal to a court is unknown to the law except by statute, and statutes must be strictly construed. Whenever the court has occasion to apply the statutory provisions in that question.

[illegible]

P-501

Sidetrack

Residual

Medium

1 Point [illegible] Sand

2 Drain formation - Varies from [illegible]

Wolfcamp interval

(Upper 60 ft only?)

FORT WORTH | TONZO VOL

DENTON MID

Packings - Varies dale Division Wolfcamp Pressure

3 Perforating

6 Depression about $320,000 and Cost 30 to 40 C

D-Sand - about $250,000 and to make capable

7 Drain Sand left - 3 to 5 years

Gravel interval left.

8 Wolfcamp - 1 year.

9 B. H.

Pressure - Wolfcamp 3200 lbs Wolfcamp pressure

Drain 4500 lbs Elect in Fields

Both sand

10 - Dual completion - process of separating two zones by a form of packer and having a cross-over flow nozzle which can alternately produce either zone through either the annulus or the tubing.

11 - Injection Completion which produces water or natural gas Propose the water or gas to be used [illegible]

12 [illegible]

13 [illegible]

[illegible]

19 I'd like more info on [illegible]
Would [illegible] Wolfcamp.

20 Would flow Wolfcamp thru tbg, because it is first that would have to be pumped, & I'd like to test for it.
More on plans for dual completion

21 Would want to know reservoir characteristics of gas injection method

22-23 Would take good bit of gas for formation gas.

26 This total reserves, gas & formation would be same, do not think would flow enough on DHC.

27 Would be shut down for formation, would need working at.
Tough, minimum cost of alternate economy. Difference in Bill's numbers & mine 1,760 this diff.

28 Would any of [illegible] as packer? No

29 [illegible]

31 [illegible]

[illegible]

37 No [illegible] Not in field

35 Phillips has changed policy. No cooperative
[illegible] oil - oil [illegible] - [illegible]
[illegible]
No [illegible] [illegible]

30 Do not [illegible] single completion
37 More in life of packers.
38 [illegible]
39 Effective water drive in Devonian.
40 Some W-D in Wolfhaps SE portion.
1

44 6% [illegible]
46 Breckenridge $200,000 cost?

51 When will gas lines go into existing wells in the Wolfhaps?

54 Cross by [illegible]

56 [illegible]
[illegible]

60 [illegible]

61 [illegible]

CC Taylor

67 Bank and Tank one.

68 Mountain Pacific.

68 Don Taylor

Otis Pressure Control, one

Cross-over nipple one.

76 Packer - Guiberson 9500 lb. [illegible]

77 - Guiberson packer in Wasson

Standard Oil Co. - Wasson (Bahar)

79 45 installations - Texas.

One 5½ casing

6 tubing at 12,800

* 83 Installations of the following units.

Dait value pumping equipment in artificial lift equipment.

84 Difficult not [illegible] for [illegible]

87 Installing equipment [illegible]

[illegible]

93 [illegible]

[illegible]

[illegible]

[illegible]

Magnolia [illegible]

101 Carl D. Perkins

Magnolia

[illegible] Magnolia is [illegible]

103 Magnolia had 12 [illegible]

Idaho 9 due to [illegible]

105 Dollarhide water has been very difficult, expensive

107 Crosby Peacock

109 Magnolia has no policy against oil-oil Dr.

113 - Shelly Statement

1 [illegible] ✓

183 Fed 630

(133 Pac 10th)

(154 Pac 382)

37 VA 194 ✓

CASE 558: Phillips' application for dual completion Denton #12, SW NW 11-15S-37E (Oil from Devonian and oil from Wolfcamp)