WESTERN-YATES

Oil Production History - State 648 Lease, Wells No. 52,63,64,67,69,71,72,73,75 & 174

ဂ္ဂ to January 1, 19471 135, 084

Cens.	Total	Dec.	Nov.	Oct.	Sept.	Aug.	July	ime	Мау	Apr.	Mar.	Feb.	Jan.		Cumul
139,744	4,660	421	207	432	431	412	419	400	470	576	438	224	230	1947	Cumulative to January 1, 1947! 135,084
144,004	4,260	433	402	467	313	237	439	142	472	472	303	236	340	1948	nuary 1, 1
148, 655	4, 651	641	329	381	256	472	384	360	315	373	411	374	355	1949	9471 135,
152, 754	4,099	335	237	364	364	373	381	35	374	112	626	336	146	1950	084
156, 568	3,814	343	362	325	338	272	274	340	355	306	318	302	279	1951	
160,780	4,212	310	332	376	424	427	449	264	324	298	419	227	362	1952	
164, 873	4, 093	405	129	450	464	(A)	283	1 1	3 5 5	351	307	307	370	1953	
168, 348	3, 475	193	255	229	293	283	بى س س س	392	219	283	292	300	403	1954	
170,630	2, 282	204	223	204	292	320	217	61	42	, <u>a</u> ,	107	253	315	1955	
172,670	2,040	179	217	207	185	242	202	242	195	110	107	ند ندا	121	1956	
174, 368	1,698	116	100 100 (10)	110	143	152	185	98	118	139	122	181	221	1957	
175, 555	1, 187	91	101	107	<b>4</b> 3	74	97	163	108	99	97	99	108	1958	
176, 266	711	5.8	19	ភ ភ	47	16	87	3.6	0	50	116	68	83	1959	٠
176, 892	626	33	47	ភូ	57	55	50	ts ts	59	Jr Jr	61	66	88	1960	
. 892 177, 51	622	ড়া সে	Un !JI	76	e de la companya de l	7.5	dk n	i de la companya de l	UT Ess	er Land	(v) A	46	22	1961	

BEFORE EXAMINER NUTTER OIL CONSERVATION COMMISSION EXHIBIT NO.

Canadit	Debra	C - 80 G	T C P SE		1 500	The second of th
Perforated Intervals	Casing		Total	Elevation	Completion	Copany, Lease

Not Completed 3550	3-3-37 3499	3-20-36 - 3500	12-19-35 3520	3~29~35	4-13-34 3506	1-6-34 3539	6-21-33 3531	9-30-32 3524	1-64-36
1550 <b>22</b> 00	1499 2238	1500 2149	520 2139	2132	506 2180	2856	1531 2190	1524 2196	2000

T State 648 No. 67

Mate 648 No. 69

Trate 648 No. 71

11 State 648 No. 73

state 648 No. 74

State 648 No. 75

State 648 No. 174

my State 648 No. 64

State 548 No. 62

State 648 No. 63

2180   8 1/4" @ 610 (No record of cement)	81/4" @ 570 (No record of coment)		2139 8 1/4" @ 575 (No record of cement)	8 1/4" @ 575 (No record 8 1/4" @ 570 (No record	8 1/4" @ 575 (No record 8 1/4" @ 570 (No record 8 1/4" @ 579 (No record
of cement)		of cement)	of coment)	of cement) of cement)	of cement) of cement) of cement)

HOH

OH - 580 - 2196

OIL CONSERVATION COMMISSION
EXHIBIT NO.

CASE NO.

EXHIBIT NO. 5

97 with 2016-27, 2068-72, 2084-92; 2150-54

OH - 579 - 2238

OH - 570 - 2149

OH - 575 - 2139

OH - 570 - 2132

OH - 610 - 2180

OH - 315 - 2856

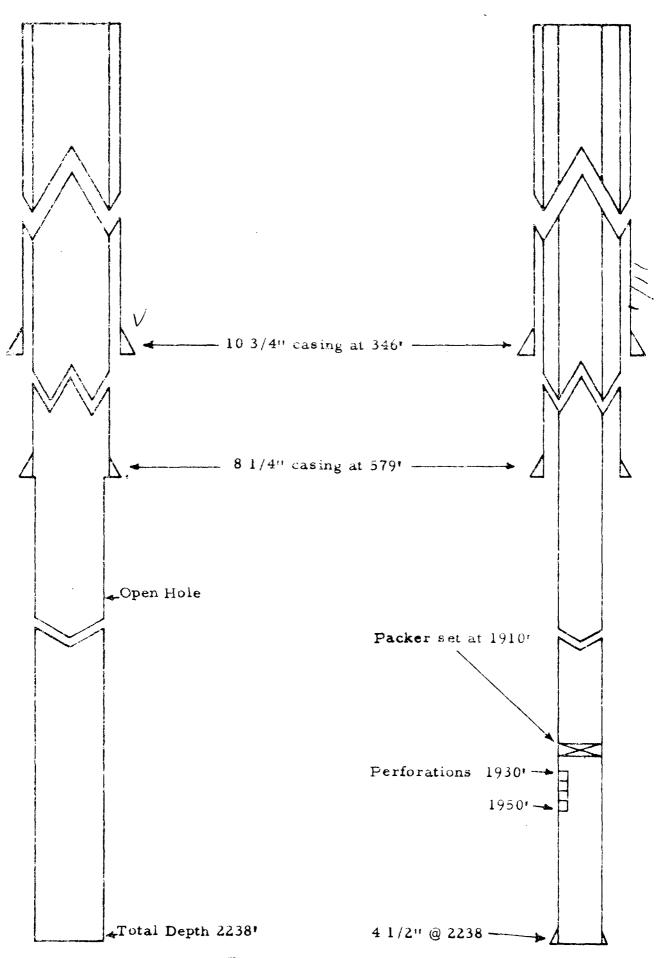
#### WESTERN-YATES STATE 648 NO. 75

Location: 1980' FNL & 1520' FEL

Section 16, T-19S, R-28E

Present Casing Program

Proposed Casing Program

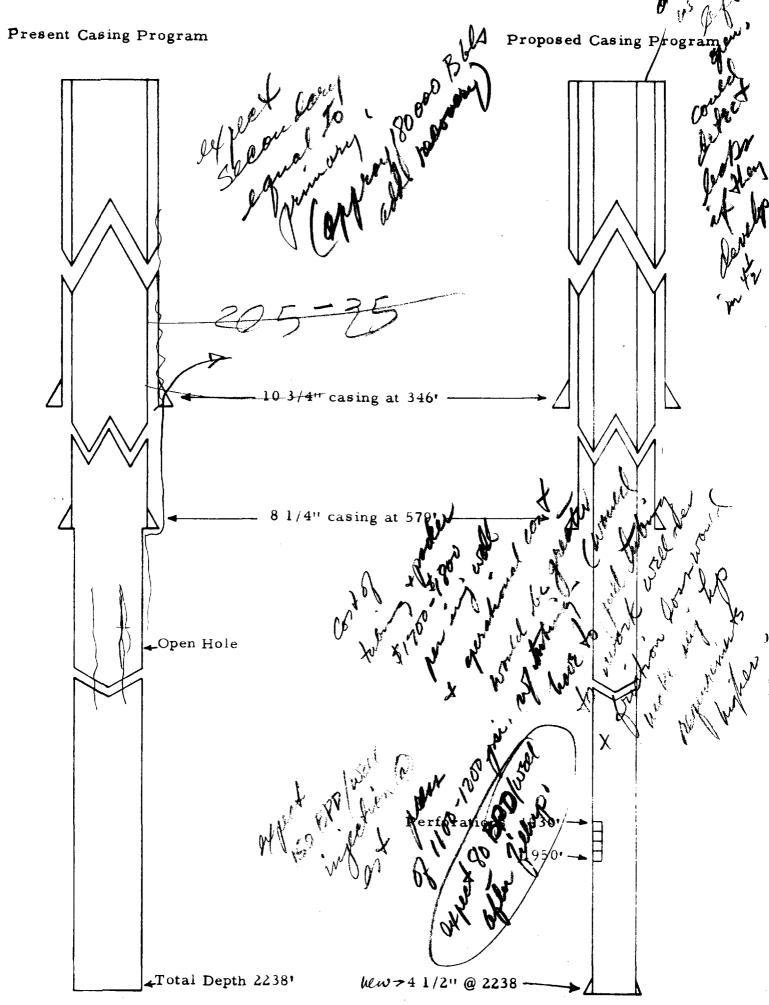


Cement volumes will be calculated after running Caliper Log. Cement to return to 1750.

#### WESTERN-YATES STATE 648 NO. 75

Location: 1980' FNL & 1520' FEL

Section 10, T-19S, R-28E



BEFORE EXAMINER NUTTER
CIL CONSERVATION COMMISSION
EXHIBIT NO.
2492

Cement volumes will be calculated after running Caliper Log. Cement to return to 1750.

## SMITH MACHINERY COMPANY ROSWELL, NEW MEXICO

### WELL AND TEST DATA SHEET

Custome: Western	n Development Co	ompany		Date 1-3-62
	30x 427, Artesia,	New Mexico		
	L & 2310' FEL,	Section 14, T-19	S, R-28E	
	desc. P. O. Box 427, Artesia, New Mexico			
	Closs and			
	(ation)			
Drilled depth	Depth before	re test	Depth	after test
Remarks Equipment	for Test: 210 x	4" pipe; 3' x 4" S	suction, 25 Sta	ge MA bowl pump.
Total 2231				
	P. O. Box 427. Artesia, New Mexico  in 330' FNL & 2310' FEL, Section 14, T-19S, R-28E  235			
		TEST DA	TA	
		of time between reading	s to assure that cond	litions are stabilized.
Test Pump: 25 Stag	ge 6" MA	210	4''	
Bowls (No	stages and size)	•	A11. 175 )::	suction (length and diam)
Static level 180 (P1	Tor to real,	Orifice used	4 1D X 2	
Pumping level	Orifice	GP <b>M</b>	Ren	narks (air? sand? etc.)
1190'	17"	58	Clear	
2 187'	11"	46	an a callifornia angli a canada di albania di anakanaga di ang ang diang di ang ang di ang di ang di ang di ang	
3.		Andrew Control of the		
4 Fluid level	at 190' - rate 58	GPM. Steady (an	JEDOMISTTER	
	B	ELOKE EVAMIN	COMMISSION	
	C			
6	aned 18 hours		ugy	1 Val
Itematika			y ha increase ad	by was 44 key was a sand
	ie restriction —	eate Could possibl	y be increased	by washing water said
with acid.	·			
Recommend	lation: Pump lev	el at 190' - rate o	f 50 to 55 GPN	M ^ .
•		Ma-A-3	wesley N	leedham
Form No. 12 SMCO 1M Sets 8-85 HP	`	1 ested	Uy	

EXHIBIT NO. 8-B

## Western Development Company of Delaware

SALE HOME THE LAST

P O BOX 427 ARTESIA NEW MEXICO

January 22, 1962

Commissioner of Public Lands State Land Office P.O. Box 791 Santa Fe, New Mexico

Attention: Mr. Ted Bilberry

Ref: Proposed Waterflood Sec. 10, T-19-S, R-28-E Eddy County, New Mexico

Dear Sir:

Western Development Company of Delaware and Yates Petroleum Corporation have made application to the New Mexico Oil Conservation Commission to waterflood a portion of its State 648 lease located in Section 10, T-19-S, R-28-E, Artesia Pool, Eddy County, New Mexico. This application has tenatively been set for hearing February 7, 1962.

Enclosed are two copies of the application and exhibits that will be presented to the Commission at the hearing.

Yours very truly,

WESTERN DEVELOPMENT COMPANY of Delaware

711 C V .

M. E. Spitler General Manager

MES:cm

OIL CONSERVATION COMMISSION

**BEFORE EXAMINER NUTTER** 

# Western Development Company of Delaware



MANAGEMENT AND ASSESSMENT OF THE PARTY OF TH

P. O BOX 427 ARTESIA, NEW MEXICO

January 22, 1962

State of New Mexico State Engineer Office Santa Fe, New Mexico

> Ref: Proposed Waterflood Sec. 10, T-19-S, R-28-E Eddy County, New Mexico

Dear Sir:

Western Development Company of Delaware and Yates Petroleum Corporation have made a joint application to the New Mexico Oil Conservation Commission to waterflood its State 648 lease located in Section 10, T-19-S, R-28-E, Artesia Pool, Eddy County, New Mexico. This application has tenatively been set for hearing February 7, 1962.

Enclosed is one copy of the application and exhibits that will be presented to the Commission at the hearing.

Common completion practices when these wells were drilled were to set 8 1/4" casing around 600 feet, drill the Grayburg pay and complete openhole. Driller's logs in the area are very incomplete and there is little information concerning shallow waters. Six of the original nine wells are still producing water free oil after twenty-seven years indicating satisfactory casing jobs. The remaining three wells are plugged and abandoned. If you would like to discuss the present casing program further prior to the hearing, we will be happy to meet you at your convenience.

Yours very truly,

WESTERN DEVELOPMENT COMPANY

of Delaware

M. E. Spitler General Manager

BEFORE EXAMINER NO.

MES:cm

The content of the	100 0-11 S			19150 411	Western Nates,	TYEMES .	7 0924
Part	enard Conti	Mando- L. ** Kersey    Western   Nichols   (R.E.Lloy   Yates D/R   Rotery"	grariage corp.   306 W	T0.3000' \$93	SS   36f   Dev. Co. [Rondo &		1-31.011
The column	111	h) M. Kelly	19 12 19 49 10 08 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$2 Fag: 53a7	Jno Al Yates" Humble	- Mobil GH	
### 1		4. S. WEICH		Western - Yates to	15		
The content of the	Bradfor	d Mando- 29 •11	10 WI 28 1 3 4 5 6	·84 ·89 27	W I Spears   Hondo &	NBP I	
## 15   Section   Proceedings   Proceedings   Process	V. HBP	Western- Hondo-Western-Yates DR Yates DR	Mesa Relations on 61 o Granidge of		Mesa Retailers : Western 8-1284	11276 T.P.C &O.	
### 1	S/R -66 6	5 e76 Graridge Corp. S/R	wilma Donohue Y2  Wilma Donohue Y2  Rersey & Co.  Bevid C Salken of ea. Wilden 5/8	●86 ●92 ♦ 3035'	E-538 1 OG-4639	16x8c0   Se. Petr. Expl.   OG-1219	
### 1	H	0348-Q8 054 040 044	O BE E. WELL SELV.	10000	TD.2100 SANTE B-6768		
### Company Services   Company S	p S.A.	07 03 04	7 //	2300	I.P.C.&O.   Gulf 9-17-67   8-16-65	Miccoy & Stevens	
### ARTES   A STORY		0 70.057	Rudman	Hondo - Yates - Welch	78fes   9:18-66 OG:182	9-18-66   8-20-67   4-21-69 OG-182 OG-1219 OG-5358	"Goodale" 378
The content of the	Flynn et al	ARTESIA	Yares //   •85	Oil Corp.	4-21-69 Westn Dev. OG-5358 E-1286		2-12.66 " T. J. Siv
The content of the		32	T // ZZwastown New -	34	L35	976 2053 98 1900 16 2488 70 2045	737 90
The color of the		10.2051 to 500' below top 5.A.	// western-	- Yates to F. 6945	Gulf	E.3428 P.1815	
The content of the		1	/ IR.Lowe	rop s.a.	Texaco H-W-Y O/R	SA-2530 SA-2628	
The content of the	e	state	10G-5940		OG-5358 E-1288	To 2888 State	
## 1995   1996	5.35  1-40.49	4-40.58   3-40.61   2-40.65   1-40.68		4-40.46   3-40.44   2-40.42   1-40.40	Pan Am. I		
### 1	do - Westn. Dev	HBP etal D/R	Ralph Lowe			10-10-60	1-18-65
### 1	0.7	Jno A. S. P. Yates	M. Yates 2-19-67	2-19-67 0G-605   TO.11442 E 5530	Western-Yates Rich & Bass HBP 10:10:60 #647 12 HBP	E-4397	Raip
### 1	,	Hondo -   63   Carrain-leed	Z923	WC 8400 Penn 9440 Miss.11425	Tex. New Mex. 4 E 3449 TD 1978 DIA 130-60 2 Gra. 2030	1	6.32.92
The content of the		E-2126 10 15 50 10	Hondo - Western Dev Yates D/R	# 648 Western		R E.McKee	
Part	It'n   HBP	Tares SVR U.A. Tares 1	Rainh Lowe	R Lowe	top S.A.   8-21-66	L	7-92.97
The content of the	126	Flynn, et al	12-19-67 OG-605	2-19-67 0G-605	State	d Floring	
		.5000.	An Renderson, et al   Sunray	Pan Am 13 Western	TD.2370	3015	1-32.88
	S.P. yates	Cavatas Honda- Labort Vates at	2860 85p 6-21-60	64 394 75 E-5003	Western-Yates Raiph Lowe	4-16-67 OG-784	
Telestro	E-641	E-641 Yates D/R   Hondo-	OG-106 E-7435		0G-272	E-4397	2-32.82
10   10   10   10   10   10   10   10		Yates S/R Yates D/  Yates S/R   E-2126  W-Y S/R		#67 063 071	TO 2950 0/4 4-17-51		
State   Stat	bil (D.Angle)	Hondo - Westn -	Hondo - Western - Yates WR		350f 0160 04-GB 03-QB		3 92 76
Section   Sect	7 10.50.69	4 9.1473 Western - 9-18-66	Western-Yates to soo' below top S.A.	D/A 4 - 25-52 2186	E-1061	OG Curtis S/R!	A 11 11
Section   Sect	09-6024	S.S.G.1770	10.14.66	W-Y S/R	0 02 01	06-272 55 56 76 0G-784	@1 to 2300
### And Company of the Company of th		I lenes 9   Vates T	Tevacolne			Sunray J.W Gates et al to sood	1-37.70 J.L.Yates
		#2   Westn   R Lowe   12-27-53	Ohio OG-955	Western-Yates S/R "E" 166	400f 384f 153 0149-5F 0148 Westn-Yates S/R 160f 300f	2 0 1 272 120f 41f 2740 "Elliott"	17 6-17-68
	S/R Jones	Warren" HBP OG-271 Western-		Nondo & Western Dev. LE 2003 & Yates D/R	& Yates D/R (Miller Bros.) "648" (Western-Yates S/R	Gulf	2 32 70 Sinclair
	DVR 02	1910-45   Western   HBP	Western-Yates to		286f 250f 200f 240f	207f 104f   50f 39p	Petr. E SOIS
	and Oil	75 1	top S A.		Q.1760-65   Yates	Eddy John H.Hill	Kinney
### 5746   State   Sta	1sf (llamex)	Jones S/R Hondo	[ 5×5×7	●165 225f	181f 110f   180f 400f	979	
March   Marc	BYR   02 709	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				.0	
Teaco   Store   Stor	974		1Hando- 19-2	8 50f State 1507 1507	1201 1501 State 3961 648"	D/A4-16-59 State	
Teaco   Store   Stor		1/1/1/1	Raiph Yates D/R Gulf Hondo -	LP 50 11-80-58 150 9 154-9 152 9 157 W. C. Welch W. Welch 274 9 1812 7	e1 e2 150f 105f		
Teaco   Store   Stor	HBP		2-19-67 - 1-GB E-7815  Yates DIR	erstone Hanson Ped Western-Yafes HBP S/R 115 "648" 162	Western-Yates 5/R "Malco Ref." E-5136	E - 5013	2-32.61 K 1337
Warring   1   1   1   1   1   1   1   1   1		1 Texaco	Istana i ra igna Western-	1 U.S. 036914 178 f	"SET Hondo -Western - Yates D/R	HBD	\$ 25.01
### ### ### ### ### ### ### ### ### ##		3-16-64   6:20:71	Wastern Value 6/8   Supleme 8 Buch	Marvin Coles 2	Z 5 Mogan ,etal	Conti.	Sinclair
State   Stat		E-7991   535 21 T	Hondo- State "Angell"			TD.3716	НВР
State   Stat		R Lowe   Ohio Hondo - Westh - 7	648 B Ferguson				
Coling   C		\$ 35.21 3/4/6	149f	State	! Floyd W. Smith		1-92.45
Coling   C	ndo &	7. Gray 1884 TD 1250 5-16-71 T. P.C. & O.   SA. 2329 (Humble)   K. 1429   TD 2480   C. 10   C.		Golf	Hondo - Western-	12-Q Gulf	5-19-49
Trivers   Texaco   Westin/Tates S/R   Westin/Tate	nor .	Quif E-7644	7-Riv 1805 Caroline" West'n Yates D/R	2-16-64 E-7815 Hondo - Western-	Yates D/R   Q.1790 Western-Yates S/R  SA.2490 TD.3200	5-12-61 # 3347	06 · 5486 2 · 32 · 4 4
Name	Q.1590			Western Yates S/R	Western Dev. Co.	"Eddy" +1	
Hondo   Size	1 70.2028 DM 1 44-61 Humble	Texaco 5-16-71   Westn: Yates S/R OT	Westn.	727	26 K-1669	P/B 2017	M.A Machris
State    State	ac." E-7991		NBP   Gulf   Humble   W-Y. 5/R 2-16-64   1-19-64	Wastn Dev S.P. Yates Eyates 10-11-53			3-16-64
State  St	12.15.63	E TOLE LITE TATES TI	NBP   E-7726	HBP B-10716 Gulf	HBP		
Hondo-West'n -Yates D/R  M.T.Anderson. Pauline v. Tripg P		State 2	3 Fare		M Anderson:	State	3
Perkins   Hab   Perkins   D Sams   Western-Yates SVR   D. Sams   D Sams   Western-Yates SVR   D. Sams   D Sams   Western-Yates SVR   D. Sams   D Sams   D Sams   Western-Yates SVR   D. Sams   D	huster	HOURS IN - ISLES DIK	5-14-64   anden mil	auline v. Trigg   Hondo O & G.	"Anderson"	_	
16.5 ess2 J. D. Millman Johnson Millman Johnso		srkins 648 Perkins 5ams   Western-Yates S/R  D. Sams	1	8-1-61 11-1-61		_	WLZ L
Eddy Co., New Mexico	749 06	18-69 -5852   8-18-69  -5852	J. D. Millman hhasan Millman	20.00		AKEA MAP	
	1		33	34 Moganietal	Eddy C	o., New Mexic	0
EXHIBIT NO I					EXHIBIT	NO 1	

SEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO.

CASE NO.

## Western Development Company of Delaware

MAIN OFFICE OCC

1.12.2492

1962 JAN 22 AM 5: 42

SENA PLAZA, SANTA FE, NEW MEXICO

-TELEPHONE YUCO 2-5568

P. O BOX 427 ARTESIA. NEW MEXICO January 19, 1962

New Mexico Oil Conservation Commission State Land Office Building Santa Fe, New Mexico

Attention: Mr. J. E. Whitfield

Dear Sir:

The following information is forwarded to you concerning the joint application of Waterflood Associates, Incorporated, Western Development Company of Delaware and Yates Petroleum Corporation for a waterflood in the East Artesia Pool Area, Eddy County, New Mexico.

Wells proposed for water injection:
Waterflood Associates, Inc., State 14 No. 3, SE/4 NW/4, Sec. 14, T-18S, R-28E.
Waterflood Associates, Inc., State 14 No. 5, NW/4 NE/4, Sec. 14, T-18S, R-28E.
Waterflood Associates, Inc., State 14 No. 8, SE/4 NE/4, Sec. 14, T-18S, R-28E.
Waterflood Associates, Inc., State 14 No. 14, SE/4 SW/4, Sec. 14, T-18S, R-28E.
Western-Yates, State 647 No. 118, NW/4 SW/4, Sec. 14, T-18S, R-28E.
Western-Yates, State 647 No. 123, NW/4 SE/4, Sec. 14, T-18S, R-28E.

The following wells are proposed for water injection on the Western Development Company of Delaware and Yates Petroleum Corporation application to waterflood the Section 10 area of the Artesia Pool, Eddy County, New Mexico:

Western-Yates, State 648 No. 64, NE/4 NW/4, Sec. 10, T-19S, R-28E. Western-Yates, State 648 No. 67, SW/4 NW/4, Sec. 10, T-19S, R-28E. Western-Yates, State 648 No. 69, SW/4 SE/4, Sec. 10, T-19S, R-28E. Western-Yates, State 648 No. 73, NW/4 NE/4, Sec. 10, T-19S, R-28E. Western-Yates, State 648 No. 75, SW/4 NE/4, Sec. 10, T-19S, R-28E. Western-Yates, State 648 No. 174, NE/4 SW/4, Sec. 10, T-19S, R-28E.

Production from both pool areas is from the Grayburg formation.

Very truly yours,

WESTERN DEVELOPMENT COMPANY of Delaware

R. J. Davenport

Production Superintendent

RJD: cm

#### OIL CONSERVATION COMMISSION

P. O. BOX 871 SANTA FE, NEW MEXICO

January 15, 1962

Mr. M. E. Spitler P. O. Box 427 Artesia, New Mexico

Dear Mr. Spitler:

The Commission is in receipt of two applications for waterflood projects, one on behalf of Waterflood Associates, Inc., Western Development Company of Delaware and Yates Petroleum Corporation, and the other on behalf of Western Development Company of Delaware and Yates Petroleum Corporation.

Reference is made to Paragraph B of Commission Rule 701 concerning the method of making application for approval of a waterflood. This rule requires that plats, logs, casing programs and other pertinent information be submitted to the Commission along with the application for hearing. It will be appreciated if you will submit this information as soon as possible to supplement these two applications.

An examiner hearing is tentatively scheduled for February 7, at which time your cases will be docketed.

Very truly yours,

RICHARD S. MORRIS
Attorney

RSM/esr

## OIL CONSERVATION COMMISSION P. O. BOX 871 SANTA FE, NEW MEXICO

March 29, 1962

Mr. Jerry Losee
Losee & Stewart
Attorneys at Law
Box 239
Artesia, New Mexico

Dear Mr. Losee:

100

Enclosed herewith is Commission Order No. R-2203, entered in Case No. 2492, approving the Western-Yates Waterflood Project in the Artesia Pool, Eddy County, New Mexico.

According to our calculations, when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 364 barrels per day.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or

### OIL CONSERVATION COMMISSION P. O. BOX 871

#### SANTA FE. NEW MEXICO

-2-Mr. Jerry Losee March 29, 1962

producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr. Cocretary-Director

ALP/ir

 $V = \bigcup_{i \in \mathcal{I}_{i+1}} v_i$ 

Ti //

cc: Oil Conservation Commission
Drawer DD
Artesia, New Mexico

Mr. J. E. Kapteina Oil Conservation Commission Santa Fe, New Mexico

case 2496

## Western Development Company of Delaware

. . MAIN :

ISB2 JAN

1.5

-SENA PLAZA, SANTA FE, NEW MEXICO

-TELEPHONE YUCO 2-5568

P. O BOX 427 ARTESIA, NEW MEXICO January 22, 1962

New Mexico Oil Conservation Commission P.O. Box 871 Santa Fe, New Mexico

Attention: Mr. Richard S. Morris, General Counsel

Ref: Proposed Waterflood

Sec. 10, T-19-S, R-28-E Eddy County, New Mexico

Dear Sir:

Please find enclosed a plat of the area requested for water-flooding on the Western Development Company of Delaware and Yates Petroleum Corporation joint waterflood application. The area is outlined in red and proposed injection wells denoted by a red triangle.

Injection will be into the upper Grayburg sand and sandy dolomite pay section. Anticipated rates and pressures are 150 barrels of water per day per injection well at 1200 PSI.

The enclosed radioactivity log on our State 648 No. 174 well is the only electric log in the proposed waterflood area.

Common completion practices when these wells were drilled were to set 8 1/4" casing at approximately 600 feet and complete openhole. We plan to clean out the injection wells, run a caliper survey and cement 4 1/2" casing. We would then be able to perforate the 4 1/2" and inject through tubing under a packer.

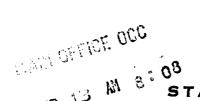
Yours very truly,

WESTERN DEVELOPMENT COMPANY

of Delaware

M. E. Spitler General Manager

MES: cm





### STATE OF NEW MEXICO

#### STATE ENGINEER OFFICE SANTA FE

S. E. REYNOLDS STATE ENGINEER

February 12, 1962

ADDRESS CORRESPONDENCE TO: STATE CAPITOL SANTA FE, N. M.

Mr. A. L. Porter, Jr. Secretary-Director Oil Conservation Commission Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of Western Development Company of Delaware and Yates Petroleum Corporation, which seeks permission to institute water flood operation in Section 10, Township 19 South, Range 28 East in Eddy County, New Mexico and to my letter on that subject dated February 2, 1962 on which hearing has already been held.

After discussingthis with Mr. Nutter, who was the Examiner at the hearing, I have reached the conclusion that this office will offer no objection to the injection of water through the casing provided the surface casing is cemented well into the salt section and the  $4\frac{1}{2}$  inch casing has been cemented from the shoe up to a point well above the perforations in the casing. In each case where these two conditions do not prevail, we do object to the injection of water through the casing and suggest that it be injected through tubing and packer with the packer set well below the top of the cement outside the  $4\frac{1}{2}$  inch casing. Naturally, we object to any injection whatsoever if the  $4\frac{1}{2}$  inch casing is not adequately cemented either at total depth or immediately above the producing formation.

Yours truly,

S. E. Reynolds State Engineer

Frank E. Irby

Chief

Water Rights Division

FEI/ma cc-Losee & Stewart Artesia, N. M.

Yates Petroleum Corp. Artesia, N. M.

Western Development Co. Denver 2, Colorado

F. H. Hennighausen Roswell, N. M.



#### STATE ENGINEER OFFICE SANTA FE

S. E. REYNOLDS STATE ENGINEER

February 2, 1962

ADDRESS CORRESPONDENCE TO: STATE CAPITOL SANTA FE, N. M.

Mr. A. L. Porter, Jr. Secretary-Director Oil Conservation Commission Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of Western Development Company of Delaware and Yates Petroleum Corporation which seeks permission to institute water flood operations in Section 10, Township 19 South, Range 28 East in Eddy County, New Mexico.

Information submitted indicates that the injection wells will have  $4\frac{1}{2}$  inch casing set at 2238 feet which is the total depth of the hole and that cement will be returned to 1950 feet. The diagram shows the perforations to be immediately above the top of the cement between 1930 and 1950 feet. My off-hand opinion is that all fluids injected will return to the surface through the annulus outside the  $4\frac{1}{2}$  inch casing. The diagram also shows that a packer will be set at 1910 feet in the  $4\frac{1}{2}$  inch casing and this location is some 20 feet above perforations and 40 feet above the cement on the outside of the  $4\frac{1}{2}$  inch casing. The diagram does not indicate, nor do any of their statements indicate that injection is to be through tubing, but I presume that it will be since the packer is shown at 1910 feet. It is my opinion that the cement outside the  $4\frac{1}{2}$  inch casing should return to a point above the packer setting, in order to control the injection and that injection should be through tubing and packer.

If injection is to be through tubing and packer with the packer set a reasonable distance below the top of the cement outside the  $4\frac{1}{2}$  inch casing, then this office offers no objection to the granting of the application.

Yours truly,

S. E. Reynolds State Engineer

Frank E. Irby

Chief

Water Rights Division

FEI/ma

cc-F. H. Hennighausen
Western Development Co.

# Western Development

OS SENA PEAZA, SANTA PE, NEW MEXICO

The state of the s

P. O BOX 427 ARTESIA, NEW MEXICO

October 15, 1962

New Mexico Oil Conservation Commission P. O. Box 871 Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr., Secretary

Dear Sir:

This is to inform you that casing pressure tests on our State 648 Lease, Wells No. 64, 73 and 75 as per Commission Order No. R-2203 have been completed and water injection has been initiated.

Well No. 64, located in Unit C Section 10, was tested prior to perforating on June 14, 1962 by Dowell Incorporated to 4,000 pounds and held that pressure for 30 minutes.

Well No. 73, located in Unit B Section 10, was pressure tested by The Western Company August 4, 1962 before perforating to 4,000 pounds and held for 30 minutes.

Well No. 75, located in Unit H Section 10, was pressure tested by The Western Company before perforating April 28, 1962 to 4,000 pounds and held for 30 minutes.

Water injection was initiated on Well No. 75 September 18, 1962; Well No. 73 September 19, 1962; Well No. 64 September 29, 1962. Injection is down casing and plans will be made to pressure test 4 1/2" casing over a packer in September, 1963.

Very truly yours,

WESTERN DEVELOPMENT COMPANY

of Delaware

Production Superintendent

RJD: cm

cc: State Engineer Office Santa Fe, New Mexico Attn: Mr. Frank Irby

> New Mexico Oil Conservation Commission P.O. Drawer DD Artesia, New Mexico Attn: Mr. M. L. Armstrong

October 17, 1962

Western Development Company of Delaware P. O. Box 427
Artesia, New Mexico

Attn. Mr. R. J. Davenport
Production Superintendent

Dear Mr. Davenport:

cc-Mr. A. L. Porter, Jr.

Receipt of your letter of October 13, 1962 reporting pressure tests on your wells No. 64, 73 and 75 in the Artesia Pool in Section 10, Township 19 South, Range 28 East is hereby acknowledged. I assume that we may expect a similar report on Wells 67, 69 and 174 at a later date. Please advise me if this assumption is incorrect.

Very truly yours,

S. E. Reynolds State Engineer

By:

Frank E. Irby Chief Water Rights Division

# Western Development Company of Delaware



SERVICE SANGE ENGINEERING

FEERHONE YU 2 5565

P. O BOX 427 ARTESIA, NEW MEXICO

October 18, 1962

State of New Mexico State Engineer Office State Capitol Santa Fe. New Mexico

Attention: Mr. Frank E. Irby, Chief

Water Rights Division

Dear Mr. Irby:

I will forward pressure test results on Well No. 67, 69 and 174, located on our State 648 Lease in Section 10, T.19 S., R.28 E., as soon as they are performed. These wells have not been prepared for water injection as yet, therefore, have not been pressure tested. The State 648 No. 174 well had pipe run to total depth upon completion and the surface pipe was cemented. This test will have to be performed over a packer.

Thank you for your letter of acknowledgement and early reply.

Very truly yours,

WESTERN DEVELOPMENT COMPANY of Delaware

Production Superintendent

RJD: cm

cc: New Mexico Oil Conservation Commission P.O. Box 871 Santa Fe, New Mexico Attn: Mr. A.L. Porter, Jr., Secretary

Western Development Company 825 Petroleum Club Building Denver 2, Colorado



### 1952 MAR SET AT E PAR SEEL

#### STATE ENGINEER OFFICE SANTA FE

S. E. REYNOLDS STATE ENGINEER

March 14, 1962

ADDRESS CORRESPONDENCE TO: STATE CAPITOL SANTA FE, N. M.

Mr. A. L. Porter, Jr. Secretary-Director Oil Conservation Commission Santa Fe. New Mexico

Dear Mr. Porter:

Reference is made to the application of Western Development Company and Yates Petroleum Corporation which seeks permission to institute a water flood operation in Section 10, Township 19 South, Range 28 East in Eddy County, New Mexico, and to my letters of February 2nd and February 12th 1962, pertaining to this application.

Yesterday this application was discussed with Mr. Nutter of your office and Mr. Spitler of Western Development Company who was accompanied by his District Engineer. After considerable discussion of the casing and cementing program to be used in this injection project I arrived at the following conclusion:

Injection through  $4\frac{1}{2}$  inch J-55 casing (11.6 pounds) will be permitted provided the casing is cemented from bottom to top, or provided casing is cemented from shoe up to so feet above 200 feet above the shoe, casing is pressure tested over a packer to 4000 psi on installation and tested to injection of installation and tested to inject pressure alternate, injection may be made through tubing under packer set below the top of the cement surrounding the  $4\frac{1}{2}$  inch casing. All pressure test results shall be forwarded to the Oil Conservation Commission and the State Engineer Office on completion of each test.

I have concluded that if these conditions are met there is not likely to be a threat of contamination to any of the fresh water which may exist in the area.

Very truly yours,

S. E. Reynolds State Engineer

> Chief Water Rights Division

FEI; hmv

My Mergers for the as to a menumen