



March 14, 1995

New Mexico Oil Conservation Commission P.O. Box 2088 Santa Fe, New Mexico 87504-2088

Attention: William J. LeMay

Re: Application for Expansion of Waterflood; Order R-4019; R-4020; WFX-648; WFX-657 Texaco Exploration and Production Inc. Cooper Jal Unit Jalmat and Langlie Mattix Formations T-24-S, R-36 & 37-E Lea County, New Mexico

### Gentlemen:

Texaco Exploration and Production Inc. respectfully requests administrative approval for the conversion of four wells to downhole commingled injection, within the Cooper Jal Unit, Enhanced Oil Recovery Project. Of the four wells designated in this application, one will be converted from an existing downhole commingled producer to a downhole commingled injector. The remaining three wells will be modified from single injectors to downhole commingled injectors for the purpose of secondary recovery by water injection. This work will help maintain reservoir pressure and recover additional oil reserves that would otherwise be left in place.

Texaco E&P Inc. respectfully requests that the Cooper Jal Unit Waterflood Project covered by R-4019, R-4020, WFX-648 and WFX-657 be expanded to include the modification of the four wellbores to downhole commingled injection wells. Administrative approval, or a NMOCD sponsored hearing is requested so that the necessary operations can be advanced in a prudent manner. If you have any questions concerning the application, please contact me at (505) 397-0411.

Yours very truly,
Michael C. alwal

Michael C. Alexander Production Engineer

MCA/ Attachments File Chrono

cc: Jerry Sexton - NMOCD; Hobbs, New Mexico Gary Gourley - BLM; Roswell, New Mexico

## OIL CONSERVATION DIVISION POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING

FORM C-108 Revised 7-1-81

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Application qualifies for administrative approval? [Nyes	APPLICA	ATION FOR AUTHORIZATION TO INJECT
Address:  P. O. Box 730 , Hobbs , New Mexico 88240  Contact party: Michael Alexander, Prod. Engineer Phone: (505) 393 - 7191  III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.  IV. Is this an expansion of an existing project? Mayes not stacked in eccessary.  V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle daraw around each proposed injection well. Inits circle identifies the well's area of review.  VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.  VII. Attach data on the proposed operation, including:  1. Proposed average and maximum daily rate and volume of fluids to be injected; 2. Whether the system is open or closed; 3. Proposed average and maximum disjection pressure; 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).  VIII. Attach appropriate geological data on the injection zone including appropriate lithologic datail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) averlying the proposed will all solved solids concentrations of 10,000 mg/l or less) averlying the proposed will as and datas and t	I.	Purpose: X Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? X yes no
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\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. R-4019, Aug. 19, 1970; R-4020, Aug. 19, 1970; WFX-648, Oct. 1,

1993; WFX-657, Feb. 21, 1994

### III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
  - (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
  - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
  - (3) A description of the tubing to be used including its size, lining material, and setting depth.
  - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
  - (1) The name of the injection formation and, if applicable, the field or pool name.
  - (2) The injection interval and whether it is perforated or open-hole.
  - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
  - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
  - (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

#### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

4-13-95

#### NEW MEXICO OIL CONSERVATION DIVISION - Form C-108

#### III. INJECTION WELL DATA

### Cooper Jal Unit : Jalmat & Langlie Mattix Pools

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132 - Unit Letter I, 2310'FSL & 990'FEL, Section 24, T24S, R36E
143 - Unit Letter F, 2310'FNL & 1650'FWL, Section 25, T24S, R36E
153 - Unit Letter L, 1400'FSL & 280'FWL, Section 19, T24S, R37E
226 - Unit Letter A, 330'FNL & 330'FEL, Section 25, T24S, R36E
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All pertinent data for each of the above proposed injection wells is included on the well schematic sheets in this application.

### IV. COOPER JAL UNIT - AREA MAP

### V. COOPER JAL UNIT - AREA OF REVIEW

A map of the subject area, Cooper Jal Unit, including all wells within a 2 mile radius is attached. Also attached is a map showing each of the subject well's 1/2 mile radius circle or area of review.

### VI. TABULATION OF DATA ON WELLS WITHIN AREA OF REVIEW

The current Cooper Jal Unit waterflood was developed under NMOCD Order R-4019, Langlie Mattix Pool, and R-4020, Jalmat Pool, dated August 19, 1970. Since completion of the original hearing, 13 new wells have been completed to the subject horizon. Three of the new wells were completed by Reserve Oil & Gas Company, well numbers 151, 153 and 154. During 1993, Texaco drilled five new wells during 1993, numbers 401, 402, 403, 404 and 405. And during 1994 Texaco drilled numbers 406, 407, 409, 413 & 419 as part of the enhanced recovery project on the Cooper Jal Unit.

The intent of this application is to seek approval, either through a NMOCD administrative approval, or through a New Mexico Oil Conservation Division sponsored hearing to modify the subject wells for injection. This application is pursuant to the continuation of an Enhanced Oil Recovery Project on the Cooper Jal Unit, which will enhance the recovery of additional reserves from the Jalmat and Langlie Mattix Pools.

To date the following wells within a half mile radius of the proposed injection wells on the Cooper Jal Unit have been plugged and abandoned:

### T-24-S, R-36-E

Section 24 : well(s) : None

Section 25 : well(s) : CJU #144, Harrison #3, 25 'A' Unit #1

Section 26: well(s): C. D. Woolworth #'s 1, 2 & 5

### VI. TABULATION OF DATA ON WELLS WITHIN AREA OF REVIEW (continued)

### T-24-S, R-37-E

Section 19 : well(s) : None Section 30 : well(s) : None

### VII. PROPOSED OPERATION

The proposed average injection rate per well is 500 BWIPD (800 BWIPD for downhole commingled injectors) with a maximum anticipated rate of 600 BWIPD (1200 BWIPD for DHC injectors). Maximum pressure will not exceed 1500 psi plant operating pressure. The average wellhead injection pressure will not exceed 600 psi, on the two new injectors, until a step rate test establishes a higher limit. The system will be closed.

### VIII. GEOLOGICAL DATA

Based on current geological and engineering data and a petrophysical rock-properties evaluation, there is no evidence of any natural or artificially created open faults within the unitized interval or above.

### IX. PROPOSED STIMULATION PROGRAM

The subject wells will be stimulated using 2,000 to 8,000 gallons of 20% NEFE HCl acid. Rock salt blocks or ball sealers will be utilized during the jobs.

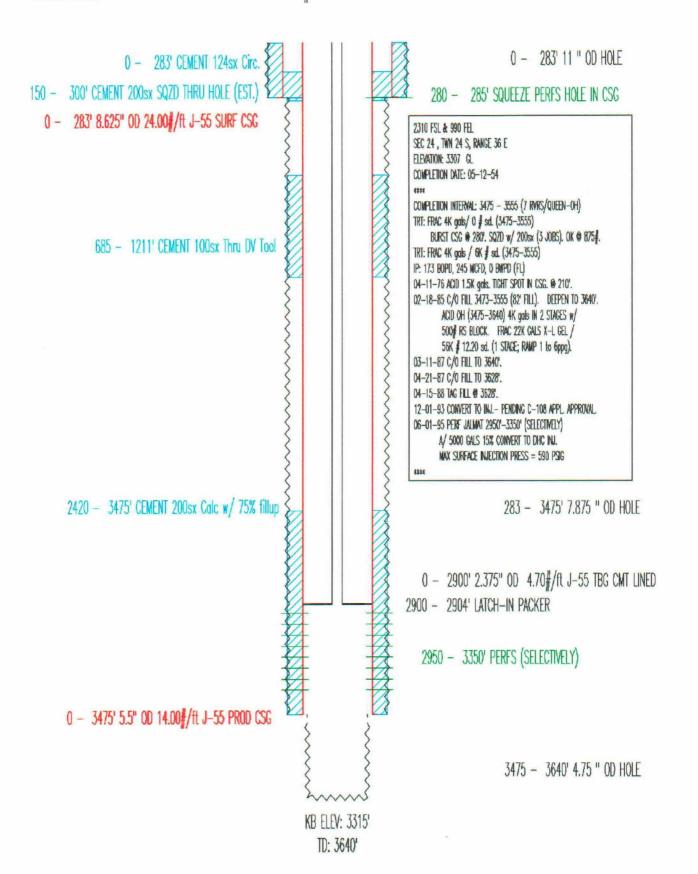
### **ATTACHMENTS**

- A. SCHEMATICS OF SUBJECT WELLS
- **B.** MAPS OF SUBJECT AREA
- C. TABULATION OF WELLS IN UNIT AREA AND AREA OF REVIEW
- D. WELLS NOT SUBMITTED IN PREVIOUS C-108
  APPLICATIONS (UNIT OR CURRENT AREA OF
  REVIEW
- E. NOTICES OF INTENT
  - LEGAL PUBLISHED IN LOCAL PAPER
  - OFFSET OPERATOR & LANDOWNER LETTER
- F. RECEIPTS FOR LETTERS TO OFFSET OPERATORS & LANDOWNERS
- G. COPIES OF PREVIOUS ORDERS

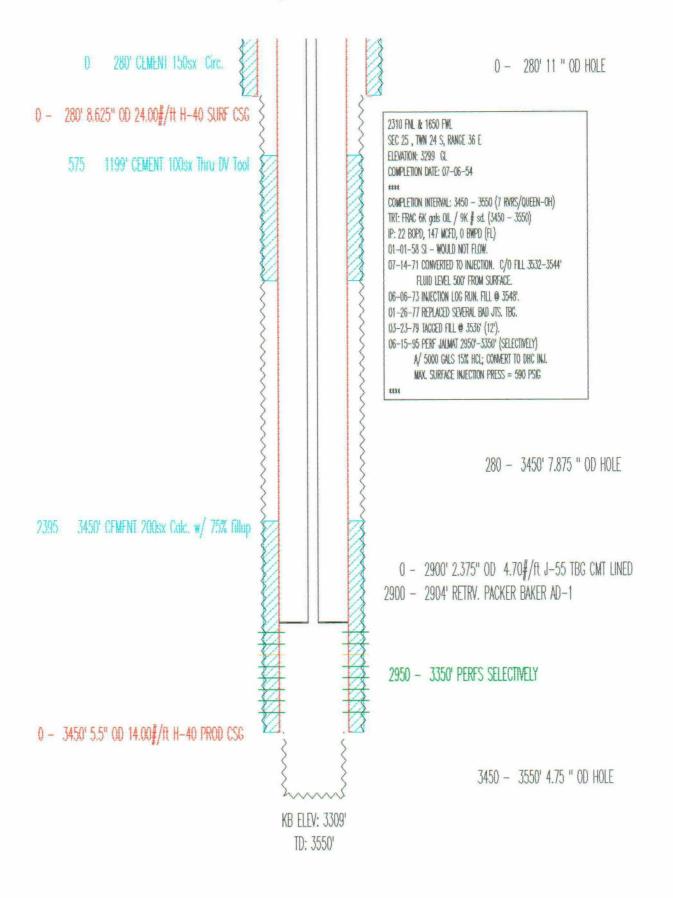
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III. WELL DATA PROPOSED DOWNHOLE COMMINGLED INJECTOR

## TEXACO E & P INC. COOPER JAL UNIT NO. 132 API# 3002509639



## TEXACO E & P INC. COOPER JAL UNIT NO. 143 API# 3002509658



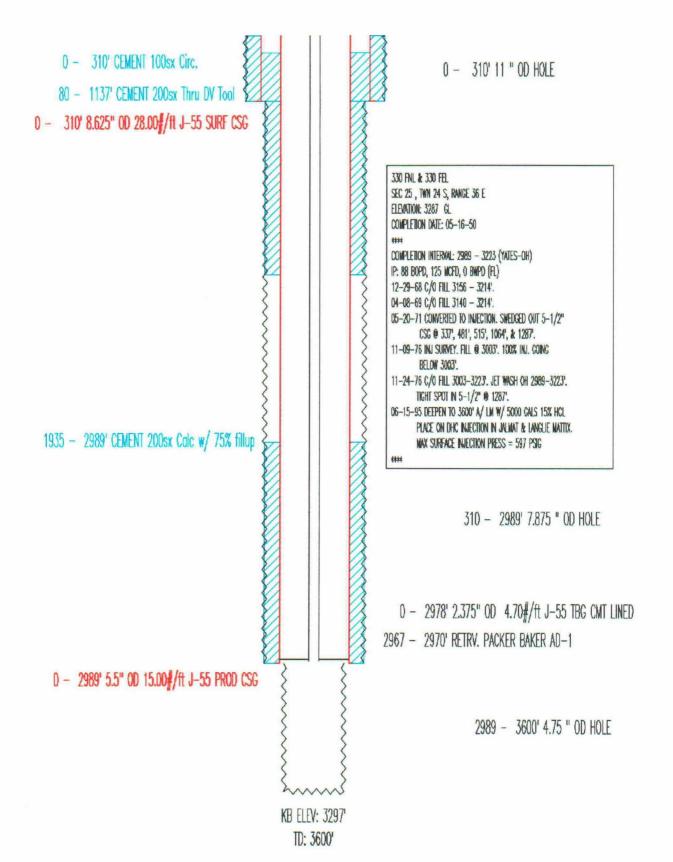
## TEXACO E & P INC. COOPER JAL UNIT NO. 153 API# 3002526128

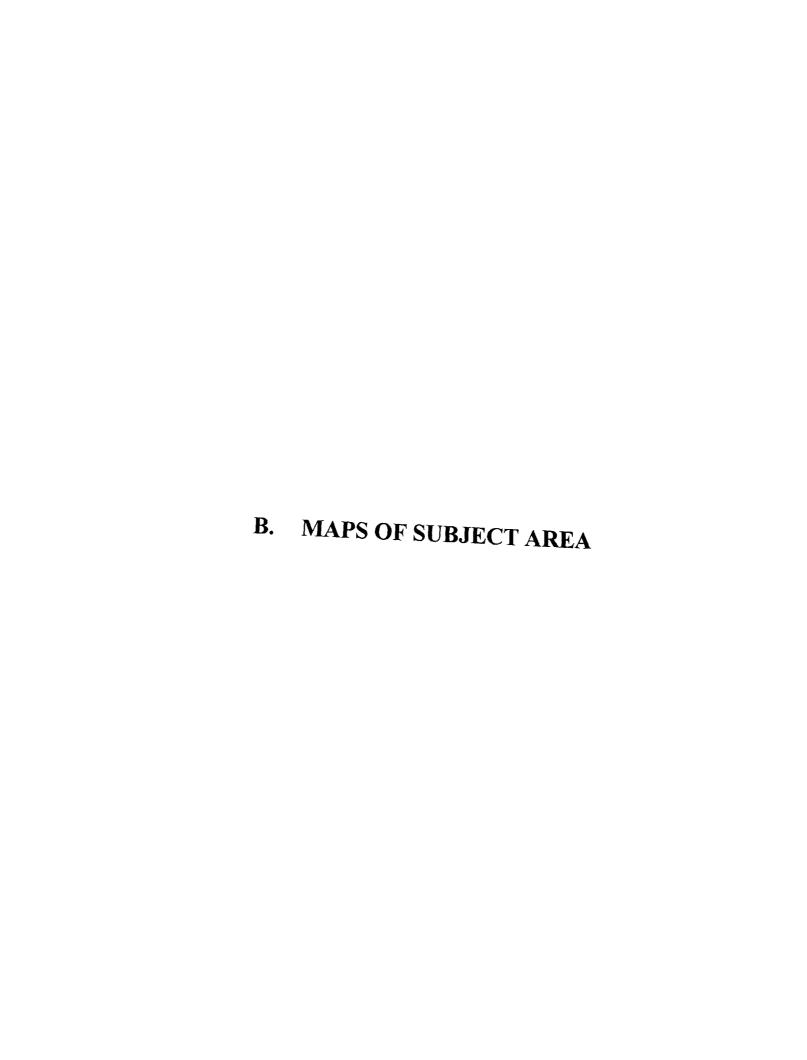
0 - 368' 12,25" OD HOLE 0 - 368' CEMENT 250sx Circ. 0 - 368' 8.625" OD 24.00#/ft K-55 SURF CSG 1400 FSL & 280 FWL SEC 19, TWN 24 S, RANGE 37 E ELEVATION: 3290.7' GL COMPLETION DATE: 02-01-79 COMPLETION INTERVAL: 3278 - 3576 (QUEN) TRT: ACID 4.9K gals ( 3278 - 3576 ) 0 - 3711' CEMENT 1000sx Circ. FRAC 38K gals / 32.5K # 20/40 & 15K # 10/20 (MAX CONC. 2ppg; 2 EQUAL STAGES w/ BALL BLOCKS) IP: 49 BOPD, 45.6 MCFD, 189 BWPD (PMP) 05-07-87 C/O TO 3700'; PERF ADD'L LM 3616-3696 (86 HOLES) ACID 3.5K gals; FRAC 30K gals / 59K # 12/20. (MAX CONC. 7 PPG) PERF ADD'L JALMAT 3003-3229 (118 HOLES); ACID 6K gals; FRAC 44.1K gals / 75K # 12/20. 07-02-87 SET CIBP 3570'. 06-15-95 CONVERT TO DHC INJECTION IN JALMAT & LANGLIE MATTIX INTERVALS. MAX SURFACE INJ PRESS = 600 PSIG 368 - 3711' 7.875 " OD HOLE 0 - 2950' 2.375" OD 4.70#/ft J-55 TBG IPC 2950 - 2954' RETRY, PACKER BAKER AD-1 3003 - 3229' PERFS 2 SPF (61 INT. 122 HOLES) 3278 - 3576' PERFS 1 SPF (17 HOLES) 3616 - 3622' PERFS 2 SPF (14 HOLES) 3641 - 3664' PERFS 2 SPF(48 HOLES) 3555 - 3570' CEMENT PLUG 3570 - 3573' CIBP 3675 - 3680' PERFS 2 SPF (12 HOLES) 0 - 3711' 5.5" 00 15.50#/ft K-55 PROD CSG 3691 - 3696' PERFS 2 SPF (12 HOLES) KB ELEV: 3302' PBTD: 3555'

TD: 3711'

III. WELL DATA PROPOSED DOWNHOLE COMMINGLED INJECTOR

## TEXACO E & P INC. COOPER JAL UNIT NO. 226 API# 3002509651





### COOPER JAL UNIT

## JALMAT & LANGLIE MATTIX FIELDS

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SCALE : 1'' = 4400'

## **COOPER JAL UNIT**

## JALMAT AND LANGLIE MATTIX POOLS LEA COUNTY, NEW MEXICO

### V. COOPER JAL UNIT - AREA OF REVIEW

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SCALE: 1" = 3450

## C. TABULATION OF WELLS IN UNIT AREA AND AREA OF REVIEW

## COOPER JAL UNIT TABULATION OF WELLS IN UNIT AND AREA OF REVIEW

SCHEMATIC INCLUDED

		CURRENT	CURRENT						IN PREVIOUS
WELL NAME	WELL NO.	STATUS	ZONE	TOWNSHIP	RANGE	SECTION	UNIT LETTER	TD	APPLICATION
Myers 'B'	WELL NO.	P&A	LM	T-24-S	R-36-E	13	F	3,686	YES
Toby	7	PRODUCER	LM	T - 24 - S	R - 36 - E	13	G	3,850	YES
Toby	2	PRODUCER	LM	T - 24 - S	R-36-E	13	H	3,800	YES
Toby	1	PRODUCER	LMJM	T - 24 - S	R - 36 - E	13	Н	3,615'	YES
Meridian	'A' No. 3	Notice of Intent, NEVER	DRILLED	T - 24 - S	R - 37 - E	23	A		NA
S. R. Cooper	2	PRODUCER	LM	T - 24 - S	R - 36 - E	23	P	3,179	YES
Van Zandt	1	PRODUCER	LM	T - 24 - S	R - 36 - E	25	1	3,525'	NO
Harrison	3	P&A'd	LM	T - 24 - S	R - 36 - E	25	K	3,594'	NO
S.W. Harrison	9	PRODUCER	Devonian	T - 24 - S	R-36-E	25	K	10,800'	NO
S.W. Harrison	1	PRODUCER	JM	T - 24 - S	R-36-E	25	<u>M</u>	3,430'	NO
Harrison 25 'A' Unit	1	PRODUCER P&A'd	JM n/a	T - 24 - S T - 24 - S	R - 36 - E R - 36 - E	25 25	N 0	3,620' 10,416'	NO NO
Woolworth	2	P&A'd	n/a	T - 24 - S	R-36-E	26	1	3,336'	NO
C.D Woolworth	1	P&A	ЛМ	T - 24 - S	R-36-E	26	Н	3,190	YES
C.D. Woolworth	5	P&A	JMLM	T - 24 - S	R-36-E	26	A	3,504'	YES
Phillips-Goldstar	2	PRODUCER	JM	T - 24 - S	R - 36 - E	26	Н	3,400′	YES
Thomas	1	PRODUCER	LM	T - 24 - S	R-37-E	19	В	3,725'	YES
J.J. Thomas	1	P & A	LM	T - 24 - S	R - 37 - E	19	В	3,676	YES
Thomas	2	PRODUCER	JMLM	T - 24 - S	R - 37 - E	19	G	3680	YES
Cities-Thomas	4	PRODUCER	LM	T - 24 - S	R - 37 - E	19	G	3,700	YES
Cities-Thomas	3	PRODUCER	LM_	T - 24 - S	R - 37 - E	19	H	3,700	YES
A. Sowell	2	PRODUCER	LM	T - 24 - S	R - 37 - E	19	<u>I</u>	3,718'	YES
Thomas 'A'	3	PRODUCER	LM	T - 24 - S	R - 37 - E	19	<u>1</u>	3,750	YES
Thomas 'A' Thomas	1	PRODUCER P & A	LM LM	T - 24 - S T - 24 - S	R - 37 - E R - 37 - E	19 19	0	3,691' 3,663'	YES YES
A. Sowell	1	PRODUCER	LM	T - 24 - S	R-37-E	19	P	3,700	YES
Jack 'B'	2	PRODUCER	JMLM	T - 24 - S	R-37-E	30	В	3,650	YES
C.D. Woolworth	4	PRODUCER	LM	T - 24 - S	R - 37 - E	30	L	3,700'	NO
CJU	101	INJECTOR	LM	T - 24 - S	R - 37 - E	18	c	3,572'	YES
CIU	102	PRODUCER	LM	T - 24 - S	R - 37 - E	18	В	3,580	YES
CIU	103	INJECTOR	LM	T - 24 - S	R-37-E	18	A	3,589	YES
CIU	104	INJECTOR	LM	T - 24 - S	R - 37 - E	18	E	3,655'	YES
СЛ	105	PRODUCER	LM	T - 24 - S	R - 37 - E	18	F	3,733'	YES
CJU	106	PRODUCER	LM	T - 24 - S	R - 37 - E	18	H	3,587	YES
CJU	107	PRODUCER	ЛМ	T - 24 - S	R - 36 - E	13	<u>K</u>	3,611'	YES
CJU	108	PRODUCER	LMJM	T - 24 - S	R - 37 - E	18	L	3,640′	YES
CIU	109 110	INJECTOR INJECTOR	LM LM	T - 24 - S	R - 37 - E	18 18	K	3,638'	YES YES
CJU	111	PRODUCER	LM	T - 24 - S T - 24 - S	R - 37 - E R - 36 - E	14	I P	3,587 3,595'	YES
CIU	112	INJECTOR	LM	T - 24 - S	R - 36 - E	13	M	3,617	YES
CJU	113	PRODUCER	LM	T - 24 - S	R - 36 - E	13	N	3,615'	YES
СЛ	114	INJECTOR	LM	T - 24 - S	R - 36 - E	13	0	3,540	YES
СЛ	115	PRODUCER	LMJM	T - 24 - S	R-36-E	13	P	3,668'	YES
СЛЛ	116	INJECTOR	LMJM	T - 24 - S	R - 37 - E	18	М	3,641'	YES
СЛЛ	117	PRODUCER	JM	T - 24 - S	R - 37 - E	18	N	3,648'	YES
CIU	118	INJECTOR	LM	T - 24 - S	R-37-E	18	0	3,628'	YES
CIU	119	PRODUCER	LM	T - 24 - S	R - 37 - E	18	P	3,597	YES
CIU	120	INJECTOR	LMIM	T - 24 - S	R - 36 - E	24	<u>C</u>	3,604'	YES
CIU	121	PRODUCER	LMIM	T - 24 - S	R - 36 - E R - 36 - E	24	B	3,560	YES
CIU	122	INJECTOR PRODUCER	LMJM LMJM	T - 24 - S T - 24 - S	R-30-E R-37-E	24 19	A 	3,552' 3,650'	YES YES
В	123	INJECTOR	LMIM	T - 24 - S	R - 37 - E	19	C	3,530	YES
CIU	125	PRODUCER	LMJM	T - 24 - S	R-36-E	24	F	3,655'	YES
CIU	126	PRODUCER	LMJM	T - 24 - S	R - 36 - E	24	G	3,560	YES
СЛ	127	PRODUCER	JM	T - 24 - S	R - 36 - E	24	Н	3,541'	YES
СЛ	128	PRODUCER	LMJM	T - 24 - S	R - 37 - E	19	Е	3,675'	YES
CJU	129	PRODUCER	LMJM	T - 24 - S	R-37-E	19	F	3,670	YES
CIU	130	PRODUCER	JM	T - 24 - S	R - 36 - E	24	K	3,550'	YES
CJU	132	INJECTOR	LMJM	T - 24 - S	R - 36 - E	24	I	3,640′	YES
СЛ	133	INJECTOR	LMJM	T - 24 - S	R - 37 - E	19	K	3,680	YES
СЛ	134	INJECTOR	LMJM	T - 24 - S	R-36-E	24	N O	3,570	YES
CU	135	INJECTOR	LMJM	T - 24 - S	R-36-E	24	<u> </u>	3,650	YES
CIU	136	PRODUCER TA'd	JM LM	T - 24 - S T - 24 - S	R - 36 - E R - 36 - E	24	P D	3,540' 3,560'	YES YES
CIU	137	PRODUCER	LMJM	T - 24 - S	R-36-E	25	С	3,635'	YES
СЛ	139	PRODUCER	JM	T - 24 - S	R-36-E	25	В	3,545'	YES
CIU	140	PRODUCER	LMJM	T - 24 - S	R - 36 - E	25	A	3,615'	YES
<u> </u>								,	

## COOPER JAL UNIT TABULATION OF WELLS IN UNIT AND AREA OF REVIEW

SCHEMATIC INCLUDED

		CURRENT	CURRENT						IN PREVIOUS
WELL NAME	WELL NO.	STATUS	ZONE	TOWNSHIP	RANGE	SECTION	UNIT LETTER	TD	APPLICATION
СЛ	141	PRODUCER	JМ	T - 24 - S	R - 37 - E	30	Ď	3,535'	YES
CJU	143	INJECTOR	LMJM	T - 24 - S	R - 36 - E	25	F	3,550	YES
СЛ	144	PA	NONE	T - 24 - S	R-36-E	25	Н	3,490	YES
CJU	145/302	DUAL -INJ. / PROD	LM/JM	T - 24 - S	R-37-E	18	G	3,591'	YES
CJU	146	INJECTOR	LMJM	T - 24 - S	R-36-E	13	I	3,642	YES
CIU	147	INJECTOR	LMJM	T - 24 - S	R-37-E	19	E J	3,576	YES
CIU	148	PRODUCER PRODUCER	LMJM	T - 24 - S T - 24 - S	R - 36 - E R - 37 - E	24 19	L	3,550° 3,824°	YES YES
СЛ	151	PRODUCER	LM	T - 24 - S	R-36-E	24	A	3,662	YES
СЛ	152	PRODUCER	LMJM	T - 24 - S	R - 36 - E	24	D	3,757	YES
CJU	153	INJECTOR	LMJM	T - 24 - S	R - 37 - E	19	L	3,711'	YES
СЛ	154	PRODUCER	LM	T - 24 - S	R - 36 - E	25	G	3,655'	YES
СЛ	155/301	PRODUCER	LM	T - 24 - S	R - 37 - E	18	D	3,720′	YES
CJU	201	INJECTOR	JM	T - 24 - S	R - 36 - E	24	A	3,237	YES
СЛ	202	PRODUCER	JM	T - 24 - S	R-37-E	19	D	3,224'	YES
СЛ	203	INJECTOR	JM	T - 24 - S	R - 36 - E	24	E	3,195'	YES
CJU	204	PRODUCER	JM	T - 24 - S	R - 36 - E	24	F	3,188'	YES
СЛ	205	INJECTOR	LMJM	T - 24 - S	R-36-E	24	G	3,251'	YES
CIU	206	PRODUCER	JM	T - 24 - S	R - 36 - E	24 19	H F	3,230	YES
CJU	208	PRODUCER PRODUCER	JM LMJM	T - 24 - S T - 24 - S	R - 37 - E R - 36 - E	24	L	3,169' 3,681'	YES YES
СЛ	210	PRODUCER	JM	T - 24 - S	R - 36 - E	24	L	3,191'	YES
CIU	211	INJECTOR	LMJM	T - 24 - S	R - 36 - E	24	K	3,244'	YES
CIU	213	TA'd	JM	T - 24 - S	R - 36 - E	24	I	3,220	YES
CIU	215	PRODUCER	JM	T - 24 - S	R - 36 - E	23	P	3,193'	YES
CJU	216	INJECTOR	JM	T - 24 - S	R - 36 - E	24	M	3,210	YES
CIU	217	PRODUCER	JM	T - 24 - S	R - 36 - E	24	N	3,244'	YES
CIU	218	INJECTOR	JМ	T - 24 - S	R - 36 - E	24	0	3,250	YES
CIU	219	PRODUCER	JМ	T - 24 - S	R - 36 - E	24	P	3,208'	YES
CJU	220	INJECTOR	LMJM	T - 24 - S	R - 37 - E	19	M	3,350′	YES
CIU	221	PRODUCER	LMJM	T - 24 - S	R - 37 - E	19	NN	3,770	YES
CIU	222	INJECTOR	ЛМ	T - 24 - S	R - 36 - E	26	A	3,193'	YES
СЛ	223	PRODUCER	JM	T - 24 - S	R-36-E	25	D	3,188'	YES
CIU	224	INJECTOR	JM	T - 24 - S	R - 36 - E	25	C	3,230	YES
CIO	225 226	PRODUCER INJECTOR	JM LMJM	T - 24 - S T - 24 - S	R - 36 - E R - 36 - E	25	В А	3,318' 3,223'	YES YES
CIU	227	PRODUCER	JM	T - 24 - S	R-37-E	30	D	3,148'	YES
CJU	228	INJECTOR	JM	T - 24 - S	R-37-E	30	C	3,134'	YES
CIU	229	PRODUCER	JM	T - 24 - S	R - 36 - E	25	<u>E</u>	3,700	YES
CJU	230	PRODUCER	JM	T - 24 - S	R-36-E	25	F	3,226'	YES
CIU	231	PRODUCER	JM	T - 24 - S	R-36-E	25	Н	3,192'	YES
СЛ	232	PRODUCER	JM	T - 24 - S	R-37-E	30	F	3,130	YES
CJU	234	INJECTOR	IМ	T - 24 - S	R-36-E	13	0	3,228'	YES
СЛ	237	SI INJECTOR	ЛМ	T - 24 - S	R-36-E	23	0	3,602'	YES
СЛ	238	INJECTOR	ЛМ	T - 24 - S	R - 36 - E	25	Е	3,589	YES
СЛ	239	INJECTOR	ЛМ	T - 24 - S	R - 37 - E	30	E	3,180	YES
СЛИ	241	INJECTOR	ЛМ	T - 24 - S	R-36-E	25	G	3,580′	YES
СЛ	242	INJECTOR	ЛМ	T - 24 - S	R - 37 - E	19	<u> </u>	3,191′	YES
CJU	244	PRODUCER	LMJM	T - 24 - S	R - 37 - E	18	j	3,601'	YES
CU	245	PRODUCER	JM	T - 24 - S	R - 36 - E	24	J	3,560	YES
CTU	303	GAS	JM D.(	T - 24 - S	R - 36 - E	13	<u>K</u>	3,165'	YES
CIU CIU	304	TA'd	JM DATM	T - 24 - S T - 24 - S	R - 36 - E R - 37 - E	13 19	J V	3,211'	YES YES
CIU	401 402	PRODUCER PRODUCER	JMLM JMLM	T - 24 - S	R-37-E	19	K K	3,750 3,750	YES
CIU	402	PRODUCER	JMLM JMLM	T - 24 - S	R-37-E	19	D	3,750	YES
CIU	404	PRODUCER	JMLM	T - 24 - S	R - 36 - E	24	В	3,750	YES
CJU	405	PRODUCER	JMLM	T - 24 - S	R - 37 - E	19	N	3,750	YES
СЈИ	406	PRODUCER	JMLM	T - 24 - S	R - 36 - E	24	Н	3,750'	NO
СЛП	407	PRODUCER	JMLM	T - 24 - S	R - 36 - E	24	G	3,750'	NO
СЛ	409	PRODUCER	JMLM	T - 24 - S	R - 36 - E	24	L	3,750'	NO
CJU _	414	PRODUCER	JMLM	T - 24 - S	R - 36 - E	24	N	3,750'	NO
CJU	419	PRODUCER	JMLM	T - 24 - S	R - 36 - E	13	P	3,750'	NO

## D. WELLS NOT SUBMITTED IN PREVIOUS C-108 APPLICATIONS

(UNIT OR CURRENT AREA OF REVIEW)

## DOYLE HARTMAN VAN ZANDT NO. 1 API# 30-025-09656

0 - 301' CEMENT 200sx EST Circ. 0 - 301' 12.25" OD HOLE 0 - 301' 10.75" OD 42.00#/ft J-55 SURF CSG 1980 FSL & 660 FEL UNT LETTER I SEC 25 , TWN 24 S, RANGE 36 E ELEVATION: 3279 GL COMPLETION DATE: 12-29-77 COMPLETION INTERVAL: 3315 - 3525 (7 RIVERS/QUEEN OPENHOLE) TRT: NOT REPORTED IP: 33 BOPD, TSTN MCFD, 32 BWPD (PMP) 0 - 3488' 2.375" OD 4.70#/ft J-55 TBG 2100 - 3315' CEMENT 300sx TOC EST. 310 - 3315' 8.875" OD HOLE 0 - 3315' 7" 00 23.00#/ft J-55 PROD CSG 3315 - 3525' 6.25" OD HOLE KB ELEV: 3279'

TD: 3525'

## LEWIS BURLESON HARRISON NO.3 API# 30-025-09655

0 - 96' CEMENT PLUG 10sx 0 - 309' 12.25" OD HOLE 0 - 309' CEMENT 150sx EST Circ. 205 - 340' CEMENT PLUG 15sx 0 - 309' 8.625" OD 42.00#/ft J-55 SURF CSG 500 - 2952' CEMENT 750sx TOC EST. 1980 FSL & 1980 FWL UNT LETTER K SEC 25 , TWN 24 S, RANGE 36 E 10# MUD ELEVATION: 3297 GL COMPLETION DATE: 06-23-79 1000 - 1100' CEMENT PLUG 10sx COMPLETION INTERVAL: 3397 - 3554 (7 RIVERS/QUEEN) 1100 - 1104' RETAINER TRT : A/ 15K gls; F/ 20K gals & 24K # SD. IP: 84 BOPD, 156 MCFD, 8 BWPD (PMP) 02-17-92 P&A'd WELL. \*\*\* 1104 - 2350' CEMENT PLUG 150sx SQZD BELOW RET. 309 - 2952' 7.875" OD HOLE 2735 - 3594' CEMENT 35sx TOC EST. 0 - 2952' 5.5" OD 15.50#/ft J-55 INT CSG 2952 - 3594' 4.75" OD HOLE 3397 - 3554' ABANDONED PERFS 1 SPF 2735 - 3594' 4" OD 11.60#/ft J-55 LINER KB ELEV: 3297'

TD: 3594'

EXXON CORPORATION S.W. HARRISON NO.9 API# 30-025-26436

0 - 1345' CEMENT 600sx EST Circ.

0 - 4091' CEMENT 1580sx TOC EST.

0 - 1345' 14.75" OD HOLE

0 - 1345' 11.75" OD 48.00#/ft J-55 SURF CSG

1345 - 4091' 10.625" OD HOLE

0 - 4091' 8.625" OD 36.00∯/ft J-55 INT CSG

1980 FSL & 1470 FWL UNT LETTER K

SEC 25, TWN 24 S, RANGE 36 E

ELEVATION: 3314 GL

COMPLETION DATE: 01-21-80

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COMPLETION INTERVAL: 10311 - 10416 (DEVONIAN)

TRT : A/ ?K gls

IP: 5 BOPD, 1.5 MMCFPD, 0 BWPD (F-2200# FTP; 16/64 CK) 03-31-81 RECOMPLETE TO UPPER DEVONIAN. SOZD PERFS.

OF RECOMPLETE TO OFF EN DEPORTE

DRILLED OUT CMT. PBTD 10352'.

RE-PERF 10111-315 & 10222-330 (2SPF,28 hls) A/ 1.5K gals TEST 100 BO, 117 BW, 279 MCF (PMP)

\*\*\*

4091 - 10800' 7.875" OD HOLE

0 - 10300' 2.375" OD 4.70#/ft L-80 TBG

0 - 10800' 5.5" OD 17.00#/ft J-55 PROD CSG

9100 - 10797' CEMENT 325sx TOC EST.

10311 - 10330' PERFS 1 SPF 10311 - 10416' SQUEEZE PERFS 1 SPF

10352 - 10800' CEMENT PLUG

KB ELEV: 3314' TD: 10800' LEWIS BURLESON INC. S.W. HARRISON NO. 1 API# 30-025-09654

0 - 294' CEMENT 200sx EST TOC

0 - 294' 14.55" OD HOLE

0 - 294' 13.375" OD 42.00#/ft J-55 SURF CSG

660 FSL & 660 FWL UNT LETTER M SEC 25 , TWN 24 S, RANGE 36 E ELEVATION: 3291 GL COMPLETION DATE: 09-19-35

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COMPLETION INTERVAL: 3400 - 3430 (7 RIVERS/QUEEN OPENHOLE)

TRT : NOT REPORTED

IP: NOT REPORTED

02-12-43 RECOMLETED TO JALMAT; SET CIBP, PER 3140-3230 JALMAT IP: 6.8 MMCFPD FTP 250# 1" CK.

10-19-83 REPORTED COMPLETION 2790-2950 & 3025-3034.

\*\*\*

294 - 2673' 12.25" OD HOLE

0 - 3050' 2.375" OD 4.70#/tt J-55 TBG

0 - 2673' 9.625" OD 32.00#/ft J-55 INT CSG

2673 - 3355' 8.75" OD HOLE

0 - 3355' 7" OD 23.00#/ft J-55 PROD CSG

3355 - 3430' 6.25" OD HOLE

0 - 2673' CEMENT 785sx TOC EST.

2500 - 3355' CEMENT 125sx TOC EST.

2790 - 2950' PERFS

3025 - 3034' PERFS

3100 - 3104' CIBP EST. DEPTH

3140 - 3230' ABANDONED PERFS

3305 - 3309' RETAINER

3309 - 3355' CEMENT PLUG 100sx

KB ELEV: 3278' TD: 3430' LEWIS BURLESON INC. S.W. HARRISON NO. 2 API# 30-025-25825

0 - 1165' CEMENT 550sx EST TOC

0 - 1165' 10.75" OD HOLE

0 - 1165' 8.6255" OD 24.00#/ft J-55 SURF CSG

2000 - 3620' CEMENT 300sx TOC EST.

2895 - 3094' PERFS

3490 - 3494' CIBP

3494 - 3550' CEMENT PLUG EST.

3502 - 3578' ABANDONED PERFS

660 FSL & 1980 FWL UNT LETTER N SEC 25 , TWN 24 S, RANGE 36 E ELEVATION: 3281 GL COMPLETION DATE: 02-08-78

\*\*\*

COMPLETION INTERVAL: 3502 - 3578 (7 RIVERS/QUEEN)

TRT: A/ 1.25K gals IP: TRACE OF OIL. SI.

02-12-43 RECOMPLETED TO JALMAT; SET CIBP, PER 2895-3094 A/15K gals; F/50K gals FOAM W/ 50K# SD.

JALMAT IP: 0 BO, 15 BW 532 MCF FTP 295# 3/4" CK.

\*\*\*

1165 - 3620' 6.25" OD HOLE

0 - 3100' 2.375" OD 4.70#/ft J-55 TBG

0 - 3620' 4.5" OD 11.60#/ft J-55 PROD CSG

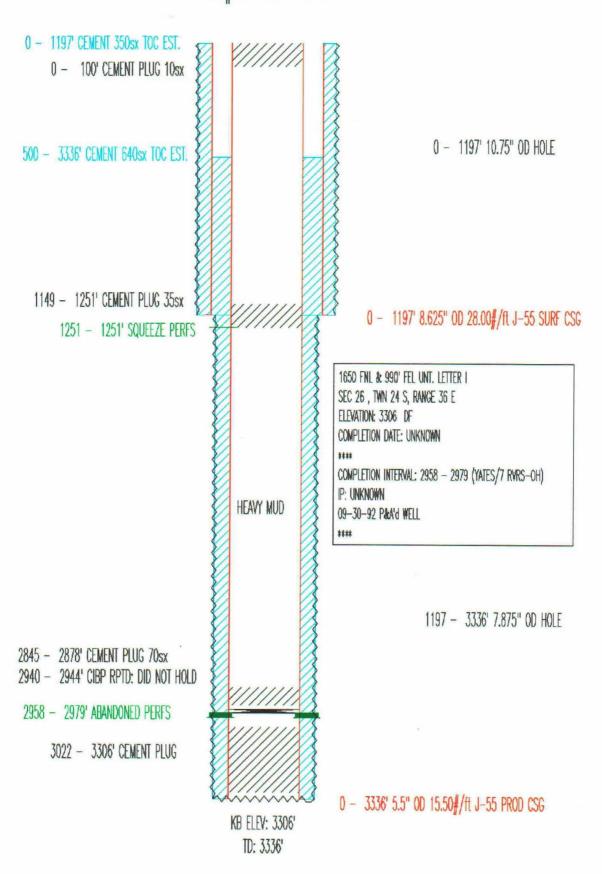
KB ELEV: 3281' TD: 3620'

## DELAWARE APACHE CORPORATION 25 "A" UNIT NO. 1 API# 30-025-21241

0 - 15' CEMENT PLUG 10sx 0 - 1269' 14.75" OD HOLE 0 - 1345' CEMENT 600sx EST Circ. 0 - 1269' 13.375" OD 48.00#/ft J-55 SURF CSG 1225 - 1300' CEMENT PLUG 25sx 1269 - 4200' 10.625" OD HOLE 2390 - 2460' CEMENT PLUG 25sx 2800 - 4091' CEMENT 450sx TOC EST. 80% FILLUP 4050 - 4238' CEMENT PLUG 50sx TOC EST. 2390 - 4200' 9.625" OD 36.00#/ft J-55 INT CSG 4200 - 10416' 7.875" OD HOLE 660 FSL & 1980 FEL UNIT LETTER O 5580 - 5730' CEMENT PLUG 50sx TOC EST. SEC 25 , TWN 24 S, RANGE 36 E ELEVATION: 3278 GL COMPLETION DATE: 06-21-65 6250 - 6400' CEMENT PLUG 50sx TOC EST. DST INTERVAL: 10150 - 10416 (ELLENBURGER) GTS IN 4 MINS @ 630 MCFPD thru 1/4" CK. SFP 450# DECREASING TO 560 MCFPD @ END OF TEST, SFP AT END 450-400 PSIG; REC. 110' COND. + 600' MCFPD HGCM, 1HR SITP = 3204 PSIG. 8150 - 8300' CEMENT PLUG 50sx TOC EST. 06-24-65 P&A'd WELL. 8850 - 9000' CEMENT PLUG 50sx TOC EST. 9990 - 10140' CEMENT PLUG 50sx TOC EST. 10266 - 10416' CEMENT PLUG 50sx TOC EST. KB ELEV: 3278'

TD: 10416'

# CONVEST ENERGY CORPORTATION WOOLWORTH NO. 2 API# 30-025-25876



## ARCH PETROLEUM IN.PORTATION C.D. WOOLWORTH NO. 4 API# 30-025-25464

0 - 365' 10.75" OD HOLE 0 - 365' CEMENT 300sx CIRC. 0 - 365' 8.625" OD 28.00#/ft J-55 SURF CSG 2080 FSL & 760' FWL UNT. LETTER L SEC 30 , TWN 24 S, RANGE 37 E ELEVATION: 3265 GL COMPLETION DATE: 04-10-77 0 - 3700' CEMENT 1100sx CIRC. COMPLETION INTERVAL: 3414 - 3662 (7 RVRS/QUEEN) TRT: A/3.6K gals 15%; F/49K gals GEL WTR W/ 1 TO 3 PPG SD. IP: 48 BO, 81 BW , TSTM MCF (PMP) 365 - 3700' 7.875" OD HOLE 0 - 3670' 2.375" OD 4.70#/ft J-55 TBG 3414 - 3662' PERFS 0 - 3700' 4.5" OD 11.60#/ft J-55 PROD CSG 3680 - 3700' CEMENT PLUG KB ELEV: 3265' TD: 3700'

## TEXACO E & P INC. COOPER JAL UNIT NO. 406 API# 3002532568

0 - 410' CEMENT 250sx Circ.

0 - 410' 12.25" OD HOLE

0 - 410' 8.625" OD 24.00#/ft WC-50 SURF CSG

2522 FNL & 400 FEL, UNT. LETTER H SEC 24 , TWN 24 S, RANGE 36 E ELEVATION: 3303 GL COMPLETION DATE: 10-28-94

\*\*\*\*

09-01-94 COMPLETION INTERVAL: 3435 - 3668 (7 RVRS/QUEEN) FRAC 29K gais 30# XL-GEL/ 76K # 16/30 BRADY sd. & 30K # 16/30 RCS. PLACE ON PMP TEST.

10-15-94 SET BP. PERF JALMAT (3132-3163 4 SPF 124 holes) FRAC JALMAT W/ 43K GALS 30# XL-GEL, 180K # 12/20 BRADY SD. & 40K # 12/20 RCS. DHC'd IP: 36 BOPD, 338 BWPD, 58 MCFPD (PMP)

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410 - 3750' 7.875 " OD HOLE

0 - 3700' 2.875" OD 6.40#/ft WC-50 TBG 3700 - 3701' SEATING NIPPLE

0 - 3750' 5.5" OD 15.50#/ft WC-50 PROD CSG

3132 - 3163' PERFS (4 SPF,124 holes)

0 - 3750' CEMENT 950sx CIRC.

3435 - 3668' PERFS (2 SPF,50 holes)

KB ELEV: 3313' TD: 3750'

## TEXACO E & P INC. COOPER JAL UNIT NO. 407 API# 3002532569

0 - 410' 12,25" OD HOLE 0 - 410' CEMENT 250sx Circ. 0 - 410' 8.625" OD 24.00#/ft WC-50 SURF CSG 2540 FSL & 1640 FEL, UNT. LETTER J SEC 24 , TWN 24 S, RANGE 36 E ELEVATION: 3314 GL COMPLETION DATE: 10-01-94 09-15-94 COMPLETION INTERVAL: 3400 - 3678 (7 RVRS/QUEEN) (3400-04,20-26,44-46,73-82,3503-11,23-38,3611-16, 3649-54 & 3670-78 2 spf, 124 holes) FRAC 29K gals 30# XL-GEL/ 106K # 16/30 BRADY sd. & 30K 16/30 RCS. PLACE ON PMP TEST. SI w/ RBP. 10-15-94 SET BP. PERF JALMAT (3144-3172 4 SPF 112 holes) FRAC JALMAT W/ 43K GALS 30# XL-GEL, 180K # 12/20 0 - 3750' CEMENT 950sx CIRC. BRADY SD. & 40K # 12/20 RCS. JALMAT ONLY IP: 80 BOPD, 149 BWPD, 79 MCFPD (PMP) 11-19-94 DHC'd JM & LM. \*\*\* 410 - 3750' 7.875 " OD HOLE 3144 - 3172' PERFS (4 SPF,112 holes) 0 - 3700' 2.875" OD 6.40#/ft WC-50 TBG 3400 - 3678' PERFS (2 SPF,124 holes) 3700 - 3701' SFATING NIPPLE

> KB ELEV: 3325' TD: 3750'

0 - 3750' 5.5" 00 15.50#/ft WC-50 PROD CSC

## TEXACO E & P INC. COOPER JAL UNIT NO. 414 API# 3002532571

0 - 430' CEMENT 250sx Circ. 0 - 3750' CEMENT 890sx CIRC. 10-17-94 DHC'd JM & LM. 55 BO, 105 BW, 240 MCFPD (PNP) 3146 - 3174' PERFS (2 SPF,112 holes) JM 3357 - 3677' PERFS (2 SPF,88 holes) LM KB ELEV: 3324'

TD: 3750'

0 - 430' 12,25" OD HOLE

### 0 - 430' 8.625" OD 24.00#/ft WC-50 SURF CSG

330 FSL & 2550 FEL, UNT. LETTER 0 SEC 24, TWN 24 S, RANGE 36 E ELEVATION: 3312 GL COMPLETION DATE: 09-25-94 09-25-94 COMPLETION INTERVAL: 3357 - 3677 (7 RVRS/QUEEN) (3357-62,3479-87,3507-13,27-39,3610-17 & 3671-77 2 spf, 88 holes) FRAC 29K gals 30# XL-GEL/ 106K # 16/30 BRADY sd. &c 30K # 16/30 RCS. PLACE ON PMP TEST. SI w/ RBP. 10-01-94 PERF JALMAT 3146-3174 (4 SPF, 112 holes) FRAC JALMAT W/ 43K GALS 30# XL-GEL, 180K # 12/20 BRADY SD. & 40K # 12/20 RCS. JALMAT ONLY 52 BO, 54 BW 321 MCF (PMP)

430 - 3750' 7.875 " OD HOLE

0 - 3700' 2.875" OD 6.40#/ft WC-50 TBG 3700 - 3701' SFATING NIPPLE

0 - 3750' 5.5" OD 15.50#/ft WC-50 PROD CSG

## TEXACO E & P INC. COOPER JAL UNIT NO. 419 API# 3002532551

0 - 420' CEMENT 250sx Circ.

0 - 3750' CEMENT 930sx CIRC.

0 - 420' 12.25" OD HOLE

0 - 420' 8.625" OD 24.00#/ft WC-50 SURF CSG

330 FSL & 500 FEL, UNT. LETTER P SEC 13 , TWN 24 S, RANGE 36 E ELEVATION: 3315' GL COMPLETION DATE: 10-03-94

\*\*\*\*

09-25-94 COMPLETION INTERVAL: 3501 - 3703 (7 RVRS/QUEEN)
(3501-08,20-30,72-75,3605-12,42-45 & 3698-3703 2 spf, 70 holes)
FRAC 29K gais 30# XL-GEL/ 106K # 16/30 BRADY sd. & 30K # 16/30 RCS. PLACE ON PMP TEST. SI w/ RBP.
10-01-94 PERF JALMAT 3158-3180 (4 SPF, 88 holes)
FRAC JALMAT W/ 43K CALS 30# XL-GEL, 180K # 12/20 BRADY SD. & 40K # 12/20 RCS.

JALMAT ONLY 71 BÖ, 89 BW 62 MCF (PMP) 10-21-94 DHC'd JM & LM. 80 BO, 77 BW, 127 MCFPD (PMP)

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420 - 3750' 7.875 " OD HOLE

0 - 3700' 2.875" OD 6.40#/ft WC-50 TBG

3700 - 3701' SEATING NIPPLE

3158 - 3180' PERFS (2 SPF,88 holes) JM

3501 - 3703' PERFS (2 SPF,70 holes) LM

KB ELEV: 3327' TD: 3750' 0 - 3750 55° 00 1550/h WC-50 PROD CSG

- E. NOTICES OF INTENT
  - LEGAL PUBLISHED IN LOCAL PAPER
  - OFFSET OPERATOR & LANDOWNER LETTER

#### AFFIDAVIT OF PUBLICATION

State of New Mexico, County of Lea. I, Kathi Bearden\_ General Manager of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period. of\_\_\_\_\_ 1 weeks. Beginning with the issue dated March 9 19 95 and ending with the issue dated General Manager Sword and subscribed to before me this

This Newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for

My Commission expires

March 24, 1998

(Seal)

#### LEGAL NOTICE March 9, 1995

Notice is hereby given of the application of Texaco Exploration & Production Inc., (Attention: Terry L. Frazier, Area Manager, P.O. Box 730, Hobbs, New Mexico, 88240, Telephone (505) 393-7191), to the New Mexico Oil Conservation Commission, Energy and Minerals Department, for approval of the following wells to be converted to water injection for the purpose of secondary oil recovery.

Lease/Unit Name: COOPER JAL UNIT

Texaco E & P Inc. plans to convert to injection and downhole commingle injection in both intervals (using a single string of tubing) the Jalmat (Tansill/Yates/7 Rivers) and the Langlie Mattix (7 Rivers/Queen/Grayburg) formations within the following well (s):

Well Number (s) and Location (s):

153 - Unit Letter L, 1400'FSL & 280'FWL, Section 19, T24S, R37E

Texaco E & P Inc. plans to add the Jalmat (Tansill/Yates/7 Rivers) interval to the current Langlie Mattix (7 Rivers/Queen/Grayburg) injection interval and downhole commingle injection in both intervals (using a single string of tubing) within the following well (s):

Well number (s) and Location (s):

132 - Unit Letter I, 2310'FSL & 990'FEL, Section 24, T24S, R36E

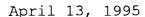
143 - Unit Letter F, 2310'FNL & 1650'FWL, Section 25, T24S, R36E

Texaco E & P Inc. plans to add the Langlie Mattix (7 Rivers/ Queen/Grayburg) interval to the current Jalmat (Tansill/ Yates/7 Rivers) injection interval and downhole commingle injection in both intervals (using a single string of tubing) within the following well (s):

Well Number (s) and Location (s);

226 - Unit Letter A, 330'FNL & 330'FEL, Section 25, T24S, R36E

The injection formations are <u>Jalmat (Tansill/Yates/Seven Rivers)</u> and <u>Langlie Mattix (Seven Rivers/Queen/Grayburg)</u> at a depth from <u>2950</u> feet to <u>3696</u> feet below the surface of the ground. Expected maximum injection rate is <u>1000</u> barrels per day and expected maximum injection pressure is <u>600</u> pounds per square inch. This work is part of an ongoing development project. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501. within fifteen (15) days of this publication.





OFFSET OPERATORS AND LANDOWNERS:

RE: COOPER JAL UNIT

NOTIFICATION OF WATERFLOOD MODIFICATION

JALMAT AND LANGLIE MATTIX FIELDS

LEA COUNTY, NEW MEXICO

This letter is to notify you that Texaco Exploration & Production Inc. is amending NMOCD order no. R-4019, order no. R-4020, order no. WFX-648 and order no. WFX-657 on the Cooper Jal Unit in Lea County, New Mexico to include the following four injection wells:

132 - Unit Letter I, 2310'FSL & 990'FEL, Section 24, T24S, R36E

143 - Unit Letter F, 2310'FNL & 1650'FWL, Section 25, T24S, R36E

153 - Unit Letter L, 1400'FSL & 280'FWL, Section 19, T24S, R37E

226 - Unit Letter A, 330'FNL & 330'FEL, Section 25, T24S, R36E

The first two wells listed will be conversions from current single completion Langlie Mattix injectors to downhole commingled Jalmat and Langlie Mattix injectors. These two wells will have the Jalmat interval added to the current completion. The third well listed will be a conversion from a downhole commingled producer, in the Jalmat and Langlie Mattix intervals, to a downhole commingled injector, in said intervals. The fourth well will be deepened from a single completion Jalmat injector, to a downhole commingled Jalmat & Langlie Mattix injector. The purpose of this application is for secondary recovery by water injection into the Jalmat and Langlie Mattix intervals between approximately 2,950' and 3,711'. Maximum injection pressure will be 600 psig (or 0.2 psig/ft) until a step-rate establishes a higher limit. Anticipated maximum injection rate is approximately 600 BWIPD (1,200 BWIPD for downhole commingled injectors).

Attached are maps showing the locations of the above wells and a copy of a wellbore schematic for each well. Also included is a copy of the legal notice published in the local county paper.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico, 87501, within fifteen (15) days of receipt of this letter.

Sincerely,

Michael C. Alexander Production Engineer

Attachments File Chrono

D.	COPIES OF PREVIOUS ORDERS	

JALMAT POOL
(Cooper-Jal Unit Area) Lea County, New Mexico
Lea County, New Mexico

Order No. R-4020, Authorizing Reserve Oil and Gas Company to Institute a Waterflood Project in the Cooper-Jal Unit Area, Jalmat Pool, Lea County, New Mexico, August 25, 1970.

Application of Reserve Oil and Gas Company for a Waterflood Project, Lea County, New Mexico.

CASE NO. 4404 Order No. R-4020

### ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9:30 a.m. on August 19, 1970, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of August, 1970, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Reserve Oil and Gas Company, seeks authority to institute a waterflood project in the Cooper-Jal Unit Area, Jalmat Pool, by the injection of water into the Tansill, Yates, and Upper and Middle Seven Rivers formations through 23 injection wells in Township 24 South, Ranges 36 and 37 East, NMPM, Lea County, New Mexico.
- That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper"
- (4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing
- (5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Reserve Oil and Gas Company, is hereby authorized to institute a waterflood project in the Cooper-Jal Unit Area, Jalmat Pool, by the injection of water into the Tansill, Yates, and Upper and Middle Seven Rivers formations through the following-described 23 wells in Lea County, New Mexico:

Operator , Lease	Well <u>No.</u>	Unit 8		ation Township	Range
Amerada Falby	3 (a d	K ual co	19 ompletic	24S on)	-37E
	4	M	19	24S	37E

Cities Service Jack "A" Federal	1 (a	M dual c	18 omplet	24S tion)	37E
Continental Jack Federal 19	1 (a	E dual c	19 omplet	24S tion)	37E
	4	C	19	24S	37E
Humble Hunter	3	E	24	248	36E
	4 (a (	C dual c	24 omplet	24S ion)	36E
Thomas	1	0	23	<b>24</b> S	36E
	3	M	24	24S	36E
Petroleum Corporation of Texa M. Dunn	as 1	0	13	<b>24</b> S	36E
	2	I	13	<b>24</b> S	36E
Harrison	1	С	25	<b>24</b> S	36E
	7	E	25	<b>24</b> S	36E
Phillips	2	I	24	<b>24</b> S	36E
Thomas	1	0	24	248	36E
	4	K	24	<b>24</b> S	36E
Reserve Oil and Gas Company Van Zandt	2	A	25	24S	36E
	4	G	25	24S	36E
Atlantic Richfield Company Dunn SCP	1	G	24	<b>24</b> S	36E
	3	A	24	<b>24</b> S	36E
Texaco Fristoe "B"	1	E	30	24S	37E
	3	С	30	24S	37E
Texas Pacific Myers "B" Federal	1	A	26	248	36E

- (2) That the subject waterflood project is hereby designated the Reserve Cooper Jal Jalmat Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.
- (3) That monthly progress reports of the waterflood project herein authorized shall be submitted to Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations:
- That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

## LANGLIE-MATTIX POOL (Cooper-Jal Unit Area) Lea County, New Mexico

Order No. R-4019, Authorizing Reserve Oil and Gas Company to Institute a Waterflood Project in the Cooper-Jal Unit Area, Langlie-Mattix Pool, Lea County, New Mexico, August 25, 1970.

Application of Reserve Oil and Gas Company for a Waterflood Project, Lea County, New Mexico.

> **CASE NO. 4403** Order No. R-4019

#### ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9:30 a.m. on August 19, 1970, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of August, 1970, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Reserve Oil and Gas Company, seeks authority to institute a waterflood project in the Cooper-Jal Unit Area, Langlie-Mattix Pool, by the injection of water into the Lower Seven Rivers and Queen formations through 26 injection wells in Township 24 South, Ranges 36 and 37 East, NMPM, Lea County, New Mexico.
- (3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing
- (5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:
(1) That the applicant, Reserve Oil and Gas Company, is hereby authorized to institute a waterflood project in the Cooper-Jal Unit Area, Langlie-Mattix Pool, by the injection of water into the Lower Seven Rivers and Queen formations through the following-described 26 wells in Lea County, New Mexico:

Operator	Well Location				
Lease	No. Unit Section Township R				
Amerada	3	K	19	24S	37E
Falby	(a d	lual c	ompleti	on)	
Cities Service Hansen-Jack	1	К	18	24S	37E
Jack "A" Federal	1 (a d	M lual c	18 ompleti	24S on)	37E

Continental Oil Company	,	r	10	0.40	077
Jack Federal 19	l (a di	E ual c	19 ompletion	24S )	37E
	8	C	19	24S	37E
Harlan Bates	1	E	18	<b>24</b> S	37E
Humble E. Hunter	4 (a di	C ual co	24 ompletion	24S )	36E
Petroleum Corporation of Texa M. Dunn	2	I ual co	13 ompletion	<b>24</b> S	36E
	4	0	13	248	36E
Harrison	6	F	25	<b>24</b> S	36E
	8	D	25	<b>24</b> S	36E
Phillips	4	P	24	24S	36E
Thomas	6	J	24	24S	36E
	7	K	24	<b>24</b> S	36E
Reserve Oil and Gas Company Andrews	2	A	18	<b>24</b> S	37E
Hunter	3	M	13	24S	36E
	5	K	13	<b>24</b> S	36E
Gutman	1 (a du	G al co	18 mpletion)	248	37E
Russell "A"	1	I	18	<b>24</b> S	37E
Van Zandt	5	В	25	24S	36E
	7	Н	25	<b>24</b> S	36E
Atlantic Richfield Company Bates	1	С	18	<b>24</b> S	37E
Dunn SCP	5	H	24	24S	36E
	6	A	24	<b>24</b> S	36E
Texaco Fristoe "B"	5	D	30	24S	37E
Texas Pacific Bates	1	o	18	24S	37E
(2) That the autient waters!	00d n	:	4 :-		1_

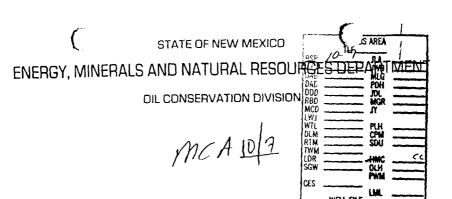
- (2) That the subject waterflood project is hereby designated the Reserve Cooper Jal Langmat Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.
- (3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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



BRUCE KING GOVERNOR

ANITA LOCKWOOD



EDRUG FREE

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

ADMINISTRATIVE ORDER NO. WFX-648

APPLICATION OF TEXACO EXPLORATION AND PRODUCTION, INC. TO EXPAND ITS COOPER JAL UNIT WATERFLOOD PROJECT IN THE LANGLIE MATTIX AND JALMAT POOL IN LEA COUNTY, NEW MEXICO

# ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-4019, and R-4020 Texaco Exploration and Production, Inc. has made application to the Division on July 2, 1993 for permission to expand its Cooper Jal Unit Waterflood Project in the Langlie Mattix and Jalmat Pools in Lea County, New Mexico.

### THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been filed in due form.
- (2) Satisfactory information has been provided that all offset operators have been duly notified of the application.
- (3) No objection has been received within the waiting period as prescribed by Rule 701(B).
- (4) The proposed injection well is eligible for conversion to injection under the terms of Rule 701.
- (5) The proposed expansion of the above referenced Cooper Jal Unit Waterflood Project will not cause waste nor impair correlative rights.
  - (6) The application should be approved.



Administrative Order WFX-648
Texaco Exploration and Production, Inc.
October 1, 1993
Page 2

### IT IS THEREFORE ORDERED THAT:

The applicant, Texaco Exploration and Production, Inc., be and the same is hereby authorized to inject water into the Tansill, Yates, Seven Rivers and Queen formations at approximately 2980 feet to approximately 3650 feet through 2 3/8-inch or 2 7/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the following described wells for purposes of secondary recovery. Two wells, the Cooper Jal Unit Nos. 112 and 122, are existing Langlie Mattix completions and by this order will be dually completed into the Jalmat Pool. Three wells, the Cooper Jal Unit Nos. 205, 211 and 220, are existing Jalmat completions and will be dually completed into the Langlie Mattix Pool. Two wells, the Cooper Jal Unit Nos. 116 and 126, will be new dual completions into both pools. Two wells, the Cooper Jal Unit Nos. 132 and 151, will be completed through the Langlie Mattix Pool only. These wells are further described on Exhibits "A-1" through "A-4" attached hereto.

### IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

\* Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than .2 psi/ft. of depth to the uppermost injection perforation.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Tansill, Yates, Seven Rivers and Queen formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

Administrative Order WFX-648
Texaco Exploration and Production, Inc.
October 1, 1993
Page 3

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject well shall be governed by all provisions of Division Order No. R-4019 and R-4020, as amended and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

DONE at Santa Fe, New Mexico, on this 1st day of October, 1993.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY

Director

SEAL

cc: Oil Conservation Division - Hobbs

659 psig	2 7/8"	3254	3296' to 3608'	24-24S-36E	A	771' FNL & 170' FEL	151	Cooper Jal Unit
691 psig	2 3/8"	3454'	3475' to 3640'	24-24S-36E	П	2310' FSL & 990' FEL	132	Cooper Jal Unit
Injection Pressure	Tubing Size	Packer Depth	Injection Interval	S-T-R	Unit	Location	Well No.	Well Name

# EXHIBIT "A.4" DIVISION ORDER NO. WFX-648 COOPER JAL UNIT WATERFLOOD APPROVED INJECTION WELLS - LANGLIE MATTIX POOL ONLY

Cooper Jal Unit	Cooper Jal Unit	Well Name	APPROVED
126	116	Well No.	NJECII
1650' FNL & 2310' FEL G 24-24S-36E	660' FSL & 660' FWL	Location	APPROVED INJECTION WELLS - NEW DUAL COMPLETIONS - JALMAT AND
ଦ	X.	Unit	COMP
24-24S-36E	18-24S-37E	S-T-R	EW DUAL COMPLETIONS - JALM.
3022' to 3560'	2980' to 3641'	Injectión Interval	MAT AND LANGLIE M
2979°	2949'	Packer Depth	LANGLIE MATTIX POOLS
2 3/8"	2 3/8"	Tubing Size	8
604 psig	596 psig	Injection Pressure	

EXHIBIT "A-3"
DIVISION ORDER NO. WFX-648
COOPER IAL INIT WATEREI CON

597 psig	2 3/8"	2886'	2986' to 3650'	19-24S-37E	М	660' FSL & 628' FWL	220	Cooper Jal Unit
604 psig	2 3/8"	2954'	3020' to 3650'	24-24S-36E	×	2310' FSL & 2310' FWL	211	Cooper Jal Unit
600 psig	2 3/8"	2954'	3000' to 3650'	24-24S-36E	G	1980' FNL & 1650' FEL	205	Cooper Jal Unit
Injection Pressure	Tubing Size	Packer Depth	Injection Interval	S-T-R	Unit	Location	Well No.	Well Name

# EXHIBIT "A-2" DIVISION ORDER NO. WFX-648 COOPER JAL UNIT WATERFLOOD APPROVED INJECTION WELLS - EXISTING JALMAT - ADDING LANGLIE MATTIX POOL

600 psig	2 3/8"	2954'	3000' to 3552'	24-24S-36E	A	330' FNL & 990' FEL	122	Cooper Jal Unit
606 psig	2 3/8"	2979'	3030' to 3617'	13-24S-36E	×	330' FSL & 990' FWL	112	Cooper Jal Unit
Injection Pressure	Tubing Size	Packer Depth	Injection Interval	S-T-R	Unit	Location	Well No.	Well Name

EXHIBIT "A-1"
DIVISION ORDER NO. WFX-648
COOPER JAL UNIT WATERFLOOD
APPROVED INJECTION WELLS - EXISTING LANGLIE MATTIX - ADDING JALMAT POOL

### STATE OF NEW MEXICO



### ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

February 17, 1994

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

Texaco Exploration & Production Inc. P. O. Box 730 Hobbs, New Mexico 88241-0730

Attention: Michael C. Alexander

Dear Mr. Alexander:

Reference is made to your application dated January 20, 1994, to convert four wells within the Cooper Jal Unit from dually completed injection wells in the Langlie-Mattix and Jalmat Pools to downhole commingled injection wells in said pools. It is our understanding that these wells were previously approved for injection as dually completed wells by Division Order Nos. R-4019 and R-4020.

It appears that the subject wells qualify for such modification pursuant to Division Rules and Regulations.

You are hereby authorized to convert the following described wells to downhole commingled injection wells in the Langlie-Mattix and Jalmat Pools within the Cooper Jal Unit Waterflood Projects:

CJU No.	120/236	Unit C,	Section	24,	T-24S,	R-36E
CJU No.	133/240	Unit K,	Section	19,	T-24S,	R-37E
CJU No.	146/233	Unit I,	Section	13,	T-24S,	R-36E
CJU No.	147/207	Unit E,	Section	19,	T-24S,	R-37E

Injection into the CJU Well No. 120/236 shall be into the interval from approximately 3,011 feet to 3,516 feet through 2 3/8 inch plastic lined tubing installed in a packer set at 2,975 feet.

Injection into the CJU Well No. 133/240 shall be into the interval from approximately 3,060 feet to 3,680 feet through 2 3/8 inch plastic lined tubing installed in a packer set at 3,000 feet.

Injection into the CJU Well No. 146/233 shall be into the interval from approximately 3,008 feet to 3,628 feet through 2 3/8 inch cement lined tubing installed in a packer set at 2,915 feet.

Injection into the CJU Well No. 147/207 shall be into the

interval from approximately 3,006 feet to 3,576 feet through 2 3/8 inch cement lined tubing installed in a packer set at 2,943 feet.

Prior to commencing downhole injection operations, the applicant shall pressure test the casing in each of the wells from the surface to the packer setting depth to assure the integrity of such casing. The applicant shall notify the supervisor of the Division's Hobbs district office of the date and time of installation of injection equipment and of the conductance of the mechanical integrity pressure tests in order that they may be witnessed.

The subject wells shall be governed by all provisions contained within Division Order Nos. R-4019 and R-4020.

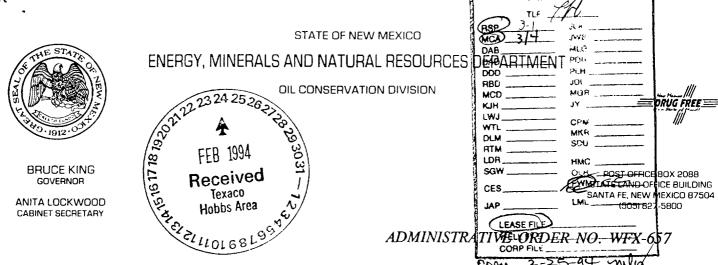
Sincerely,

William J. LeMay

Director

xc: OCD-Hobbs

File-Case Nos. 4403, 4404



APPLICATION OF TEXACO EXPLORATION & PRODUCTION, INC. TO EXPAND ITS WATERFLOOD PROJECT IN THE LANGLIE-MATTIX AND JALMAT POOLS IN LEACOUNTY, NEW MEXICO

# ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order Nos. R-4019 and R-4020, Texaco Exploration & Production, Inc. has made application to the Division on January 24, 1994 for permission to expand its Cooper Jal Unit Waterflood Project in the Langlie-Mattix and Jalmat Pools in Lea County, New Mexico.

### THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been filed in due form.
- (2) Satisfactory information has been provided that all offset operators have been duly notified of the application.
- (3) No objection has been received within the waiting period as prescribed by Rule 701(B).
- (4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.
- (5) The proposed expansion of the above referenced waterflood projects will not cause waste nor impair correlative rights.
  - (6) The application should be approved.

### IT IS THEREFORE ORDERED THAT:

The applicant, Texaco Exploration & Production, Inc., be and the same is hereby authorized to inject water into the Tansill, Yates, Seven Rivers and Queen formations through the gross interval from approximately 3019 feet to approximately 3650 feet through 2 3/8-inch

Administrative Order WFX-657 Texaco Exploration & Production, Inc. February 21, 1994 Page 2

cement-lined tubing set in a packer located within 100 feet of the uppermost injection perforation in the wells shown on Exhibit "A" attached hereto for the purpose of secondary recovery to wit. The subject wells are hereby further authorized to be utilized as downhole commingled injection wells in the Langlie-Mattix and Jalmat Pools.

### IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the wells, the casing in each well shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus in each well shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than that shown on Exhibit "A".

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Tansill, Yates, Seven Rivers and Queen formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order Nos. R-4019 and R-4020, and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

Administrative Order WFX-657 Texaco Exploration & Production, Inc. February 21, 1994 Page 3

<u>PROVIDED FURTHER THAT</u>, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

DONE at Santa Fe, New Mexico, on this 21st day of February, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J/LEMAY

Director

SEAL

cc: Oil Conservation Division - Hobbs

# EXHIBIT "A" DIVISION ORDER NO. WFX-657 TEXACO EXPLORATION & PRODUCTION, INC. COOPER JAL UNIT WATERFLOOD PROJECT APPROVED INJECTION WELLS DOWNHOLE COMMINGLED LANGLIE-MATTIX & JALMAT

Well Name	Well No.	Location	Unite	S.T.R	Injection Interval	Packet Depth	Tubing Size	Injection Pressure (PSIG)
Cooper Jal Unit	134	330' FSL - 1650' FWL	Z	24-24S-36E	3031' - 3570'	2975'	2 3/8"	606
Cooper Jal Unit	135	990' FSL - 1980' FEL	0	24-24S-36E	3019' - 3650'	2975'	2 3/8"	604

# F. RECEIPTS FOR LETTERS TO OFFSET OPERATORS & LANDOWNERS

### Z 106 611 815



### Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

Post ige	\$\$.47
Certified Fee	1,10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1,10
Return Receipt Snawing blue Date, and Addressee's Address	88
TOTAL Postage . & Fees	5 83.67

Z 106 611 814



### Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

	Sent to Chevron USA Inc.	
	Pror Box 1150	
	Midland Fexas 797	02
	Postage	\$1,47
	Certified Fee	1.10
	Special Delivery Fee	
	Restricted Delivery Fee	
333	Return Receipt Showing to Whom & Date Derivered	110
PS Form <b>3800, March</b> 1993	Return Receipt Showing to Whom, Date, and Addressee's Address	HOBR
Š	TOTAL Postage & Fees	\$= <u>3</u> \67
200	Postmark or Date	(\$\langle \text{\text{\$\infty}}\)
E		04586
2		

Z 106 611 821



### Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

	1000 110 701301	
	Seat to Meridian Oil In	
	Street a P.O. Box 5181	
	Midland, Texas	79/10
	Postage	\$ 1,47
	Certified Fu-	1,10
	Special Deliver, Fee	
	Restricted Dewery Fee	
1993	Return Receipt Showing to Whom & Date Delivered	1.10
arch	Return Receipt Showing to Whom, Date, and Audissee Address	
Ž O	Postage Feeso	\$267
PS Form <b>3800, March</b> 1993	Postimark of Dates 18	APA SABO
ď	O.	288

### Z 106 611 809



### Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

Sent to	
Zia Energy, Inc.	
P.O. Box 2219	
Hobbs, N.M. 88240	
Postage	\$ 1,47
Certified Fee	1,10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.16
Return Receipt Showing to William. Date, and Addressee's Address	
TOTAL Postage & Fees	3.67
Postmark of Dates Co	Z
33	

Z 10P P17 975



### Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

	SeriExxon Company U	JSA
	Strep.O.NBox 1600	702
	PoMidland, Texas 79	
	Postage	\$ 1,47
	Certified Fee	1.16
	Special Delivery Fee	
	Restricted De very Fee	
993	Return Receipt Showing to Whom & Date Delivered	1.10
rch 1	Return Receipt Strating to Whom, Dates and Ada esset's Adress	
), Ma	TOTAL Postage 8/Fees 2	\$ 3.47
3800	Postmark or Date	
E	2000	
S Fc	0.	
PS Form <b>3800,</b> March 1993	to Whom & Cate Delivered  Return Receipt Stoding a Whom, Date and Adversary  TOTAL Postage  & Fees	

Z 106 611 816



### Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail

Sent t Trustees - Ja	1
Street and N Public Librar	
Postage	\$ 1,47
Certified from	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1,10
Return Recurd: Show 10 (Askim Date, and Address and Address)	
TOTAL Postage & Fees Z	\$3.47
Postmennor Belts	
	Postage Public Librar Postage Restricted Delivers Fee Return Receipt Showing to Whom 3 Date Delivered Return Receipt Showing to Whom 3 Date Delivered Return Receipt Showing to Whom 3 Date Delivered Return Receipt Showing to Whom 3 Date Showing to Wh

### Z 106 611 819

# UNITED STATES

### Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

	OXY USA Inc. Street an P.O. Box 50250 PO Sta Midland, Texas	79702
	Postage	\$ 144
	Certified Fee	110
	Special Delivery Fee	
	Restricted Delivery Fee	
99.3	Return Receipt Showing to Whom & Date Delivered	1.10
irch 1	Peturn Receipt Showing to Whom, Date, and Addressee's Address	
r 5 roun 3800, March 1993	TOTAL Postage & Fees	\$ 3.67
	Postmark or Date	

Z 106 611 818



### Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

	(See Reverse)			
ſ	Sent ' Doyle Hartman			
-	Street and RoO. Box 10426			
-	PO, State and Zhand, Texas 79702			
1	Postage	\$ 1.47		
	Certified Fee	1.10		
	Special Delivery Fee			
	Restricted Delivery Fee			
993	Return Receipt Showing to Whom & Date Delivered	1,10		
rch	Return Receipt Showing to Whom, Date, and Addressee's Address.			
, Ma	**TOTAL Postage / & Fees / C	\$ 3.67		
PS Form 3800, March 1993	Postmari & Date 7	200		

Z 106 611 820



## Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

	(See Reverse)			
	Sent Fred B. Cooper			
	RR#1, Box141			
	Blossom, TX 75416			
	Fustage	\$ 1.47		
	Certified Fine	1.10		
	Special Delivery Fee			
	Restricted Delivery Fee			
1993	Return Receipt Showing to Whom & Date Delivered	1.10		
uch	Return Receipt Snowing to Whom, Date, and Addressee's-Address			
PS Form <b>3800,</b> March 1993	TOTAL Egistage & Fees	\$ 3.47		
	Postmark or Date			

Z 106 611 811



# Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

	SArch Petroleum Inc.		
	and Telloleum Inc.		
	shell and mylor St. Penthouse II-A		
	I PT Wath Old m		
	Ft. Worth, Texas 76106		
		\$ 1,47	
	Certified Fee	1.10	
	Special Delivery Fee		
	Restricted Delivery Fee		
•	Return Receipt Showing to Whom & Date Delivered	1.10	
	Return Receipt Sharing in Whom, Date, and Addressee's about se		
	TOTAL Postage	\$	
I	Postra de la		
l	S. P. S. O. P. C. S. C.		
	97		
í			

Z 106 611 810



# Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

Convest Energy Corp 2401 Fountain View Houston, Texas	Dr. Suite 70
Pustau-	\$ 1,47
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	+
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom Date, and Addressee's Andress.	0.
TOTAL Postage & Fees	\$ 3.67
Return Receipt Showing to Whom & Date Delivered Return Receipt Showing to Whom Date, and Addressee's Andrea TOTAL Postinge & Fees Postmark or Date	Ž

Z 106 611 817



# Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

(See nevelse)					
Street a P.O. Box 2479  P.O. S. Weidland, Texas 79702					
			Postage	\$1.47	
			Certified Fee	\$1.47 0+1	
Special Delivery Fee					
Restricted Delivery Fee					
Return Receipt Showing to Whom & Date Delivered	1.10				
Return Receipt Showing to Whom, Date, and Addressee's Address					
TOTAL Fostage & Fees	\$3.67				
Posimark or Date					
	Sent to Lewis B. Burles  Street ap. O. Box 2479  P.O. She burled Texas  Postage  Certified Fee  Special Celivery Fee  Restricted Delivery Fee  Return Receipt Showing to Whom & Date Delivered  Return Receipt Showing to Whom, Date, and Addressee's Address  TOTAL Codage & Fees				

### Z 106 611 813



### Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

_	(505 110 1010 1		
	Phillips Petroleum Co.		
	Street 4001 Penbrook		
[	Po sOdessa, Texas 79762		
	Postage	\$	1,47
	Certified Fee		1,10
	Special Delivery Fée		
ļ	Restricted Delivery Fee		
333	Return Receipt Showing to Wnom & Date Delivered		1,10
March 1995	Return Receipt Slowing to Whom, Date, and Agaressee's Address,		
•	TOTAL Portage & Fees	\$	3.47
Postmak of Date.			
For		/	

Z 10P PJJ 955



# Receipt for Certified Mail

No Insurance Coverage Provided Do not use for International Mail (See Reverse)

	(Dee Hevelse)			
	Energy Development Corp.			
	1000 Louisiana, Ste 2900			
Houston, TX 77002				
	Fustar-	\$ 1.47		
	nerthed Fre	1./0		
	Spulia Delivery Fee			
	histrited Deuver, Fee			
1993	Return Receipt Snowing th Winom & Date Delivered	1.10		
, LCh	Return Receipt Showing to Wrism, Date, and Addressee's Address			
PS Form <b>3800</b> , March 1993	Date, and Addressee's Address  FOTAL Postag  S. Fees  Postmark or Date	\$3.67		
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orm :	(SP(13/2)	\(\frac{1}{2}\)		
PS F	0,180			
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