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September 15, 1993

HAND-DELIVERED

Mr. David R. Catanach
Hearing Examiner
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503

Re: Case No 10798:

Application of Texaco Exploration and Production Inc. to Authorize the Expansion of a Portion of its Cooper Jal Unit Waterflood Project and Qualify said Expansion for the Recovered Tax Rate Pursuant to the "New Mexico Enhanced Oil Recovery Act", Jalmat and Langlie-Mattix Pools, Lea County,

New Mexico

Dear Mr. Catanach:

Pursuant to your request I am enclosing the proposed Order of Texaco Exploration and Production Inc., in the above-referenced case.

Your attention to this application is appreciated.

Very truly yours,

WILLIAM F. CARR

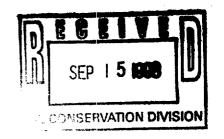
WFC:mlh Enclosure

cc: Mr. Jim Ohlms (w/enclosure)

Project Engineer

Texaco Exploration and Production Inc.

Post Office Box 3109 Midland, TX 79702





STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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

Case 1	No. 3	10798	
Order	No.	R-	

APPLICATION OF TEXACO EXPLORATION AND PRODUCTION INC. TO AUTHORIZE THE EXPANSION OF A PORTION OF ITS COOPER JAL UNIT WATERFLOOD PROJECT, AND QUALIFY SAID EXPANSION FOR THE RECOVERED TAX RATE PURSUANT TO THE "NEW MEXICO ENHANCED OIL RECOVERY ACT", JALMAT AND LANGLIE-MATTIX POOLS, LEA COUNTY, NEW MEXICO.

TEXACO EXPLORATION AND PRODUCTION INC.'S PROPOSED ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 12, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this _____ day of September, 1993, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

Case No. 10798
Order No. R-_____
Page 2

- (2) The applicant, Texaco Exploration and Production Inc. ("Texaco") seeks an order pursuant to the rules and procedures for Qualification of Enhanced Oil Recovery Projects and Certification for the Recovery Oil Tax Rate as promulgated by Division Order No. R-9708, qualifying a portion of its Cooper Jal Unit Waterflood project for the Recovered Oil Tax Rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (3) The Cooper Jal Unit was approved by the Division on August 25, 1970 by Order No. R-4018 and became effective on October 1, 1970. Secondary recovery by waterflooding was approved on August 25, 1970 in the Langlie-Mattix Pool by Order No. R-4019 and in the Jalmat Pool by Order No. R-4020. Separate waterflood projects have been operated in each of these pools using 80-acre five spot injection patterns since 1970.
- (4) The portions of the Cooper-Jal Unit Area to be included in the "Project Area" is as follows:

Township 24 South, Range 36 East, NMPM

Section 13: S/2

Section 18: SW/4 SW/4

Section 23: S/2 SE/4

Section 24: All

Section 25: N/2

Section 26: NE/4 NE/4

Township 24 South, Range 37 East, NMPM

Section 19: W/2 Section 30: NW/4

comprising 1920 acres, more or less. Only acreage which is gas productive within this Unit and not under waterflood operations has been deleted from the Project Area.

(5) Texaco proposes an expansion of its waterflood project in the Project Area by injection of water into the Jalmat Pool, Tansill, Yates and Seven Rivers formations, and into the Langlie-Mattix Pool, Bottom 750 feet of the Seven Rivers and the Queen formations from a depth of approximately 3000 feet to 3450 feet in forty (40) existing or newly drilled injection wells and thirty-eight (38) producing wells as shown on Exhibit "A" attached hereto.

Case No. 10798
Order No. R
Page 3

Separate applications seeking administrative approval from the Division of the injection wells have been filed with the Division on Form C-108.

- (6) For the expansion of an Enhanced Oil Recovery project to qualify for the Recovered Oil Tax rate there must be a significant change or modification as determined by the Division in (a) the technology or process used for the displacement of crude oil from an oil well or pool classified by the Division; or (b) the expansion, extension or increase in size of the geologic area or adjacent geologic area that can reasonably be determined to represent a new or unique area of activity.
- (7) The producing zones in the Project Area are discontinuous, compartmentalized reservoirs with each interval comprised of a series of lenticular stringers which are not in communication with each other and therefore are separate from the existing waterflood project. (Texaco Exhibits 4, 5 and 6).
- (8) The original waterflood in these pools was successful but recoveries from the unit have been in sharp decline in recent years (Texaco Exhibit 7) and recoveries have been highly variable due to sand variations in the individual producing zones. (Texaco Exhibit 9, 10 and 11).
- (9) Texaco proposes to tighten the spacing pattern in the Project Area by going from the current 80-acre five spot waterflood pattern to a 40-acre five spot pattern by opening additional zones in existing wells and by drilling new wells to align the waterflood patterns in both pools.
- (10) Texaco's proposed waterflood expansion involves a significant and modification in the waterflood process being utilized in the Project Area.
- (11) Reducing the waterflood pattern by opening new intervals in existing wells and by drilling additional wells will add new zones to this project, improve the sweep of this waterflood project, increase its size, and extend it into new geographic areas of activity thereby recovering reserves that without this modification would never be produced.
- (12) The evidence presented demonstrates that the subject waterflood project expansion meets all criteria for qualification and should be <u>approved</u>.
- (13) This expansion of the Cooper Jal Unit Waterflood will occur in three phases and the wells and zones in each phase to some extent overlap. Phase I is to be implemented in late 1993, Phase II in 1994 and Phase III in 1995.

Case No. 10798
Order No. R
Page 4

- (14) To assure that data is available to demonstrate that wells in each phase of this project expansion are experiencing a positive production response to this modification in this waterflood project, Texaco should conduct sufficient tests on each zone in each producing well to establish an adequate base line against which any subsequent production response can be measured.
- (15) The qualified Project Area should initially comprise the area described in paragraph (4) hereinabove, provided however, the Phase I, II and III areas within the project may be independently certified by the Division to the New Mexico Taxation and Revenue Department.
- (16) To be eligible for the Enhanced Oil Recovery credit, the operator should advise the Division prior to the date on which water injection commences in Phase I, II and III of the project and at such time(s), request the Division certify Phase I, II or III to the New Mexico Taxation and Revenue Department.
- (17) The Phase I, II and III areas within the project and/or the producing wells within such areas eligible for the Recovered Tax Rate may be contracted and reduced dependent upon the evidence presented by the applicant in its demonstration of the occurrence of a positive production response.

IT IS THEREFORE ORDERED THAT:

- (1) The Texaco Exploration and Production Inc. Cooper Jal Unit Waterflood Project Expansion is hereby qualified as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
 - (2) The certified "Project Area" shall include the following described lands:

Township 24 South, Range 36 East, NMPM

Section 13: S/2

Section 18: SW/4 SW/4

Section 23: S/2 SE/4

Section 24: All

Section 25: N/2

Section 26: NE/4 NE/4

Case No. 10798
Order No. R
Page 5

Township 24 South, Range 37 East, NMPM

Section 19: W/2 Section 30: NW/4

comprising 1920 acres, more or less, provided however, the Phase I, II and III areas within the project may be independently certified by the Division to the New Mexico Taxation and Revenue Department.

- (3) To be eligible for the Enhanced Oil Recovery tax credit, the operator shall advise the Division prior to the date on which water injection commences in Phase I, II and III of the project and at such time(s), request the Division certify Phase I, II or III to the New Mexico Taxation and Revenue Department.
- (4) The Phase I, II and III areas within the project and/or the producing wells within such areas eligible for the recovered oil tax rate may be contracted and reduced dependent upon the evidence presented by the applicant in its demonstration of the occurrence of a positive production response.
- (5) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LeMAY Director

SEAL

PRODUCER		NUMECTOR	JALMAT		1980' FNL 760' FWL	77.73
PRODUCER	L	יין מיין			7000	
	JAI MATILANGLIE-MATTIX	BBONICEB	TAM IAL	19-24S-37F	990' FNL 330' FWL	202
INJECTOR		INJECTOR	JALMAT	24-24S-36E	660' FNL, 330' FEL	201
PRODUCER	JALMATILANGLIE-MATTIX	PRODUCER	LANGLIE-MATTIX	24-24S-36E	1550' FNL, 2400' FEL	154
INJECTOR	JALMATILANGLIE-MATTIX	PRODUCER	JALMATILANGLIE-MATTIX	19-24S-37E	280' FWL, 1400' FSL	163
PRODUCER	LANGLIE-MATTIX	PRODUCER	LANGLIE-MATTIX	24-24S-36E	660' FNL, 660' FWL	152
NJECTOR	LANGLIE-MATTIX	PRODUCER	LANGLIE-MATTIX	24-24S-36E	170' FEL, 771' FNL	151
PRODUCER	-MATTIX	PRODUCER	JALMATILANGLIE-MATTIX	19-24S-37E	1650' FSL, 990' FWL	150
PRODUCER	JALWAT	INJECTOR	LANGLIE-MATTIX	24-24S-36E	2310' FSL, 2310' FEL	148
INJECTOR	LANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	19-24S-37E	2310' FNL, 330' FWL	147
INJECTOR	LANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	13-24S-36E	1650' FSL, 990' FEL	146
INJECTOR	JALMATILANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	25-24S-36E	2310' FNL, 1650' FWL	143
PRODUCER	JALMAT	INJECTOR	LANGLIE-MATTIX	30-248-37E	330' FNL, 330' FWL	141
PRODUCER	JALMATILANGLIE-MATTIX	PRODUCER	JALMATILANGLIE-MATTIX	25-24S-36E	990' FNL, 990' FEL	140
PRODUCER	JALMAT	INJECTOR	LANGLIE-MATTIX	25-24S-36E	2310' FEL, 330' FNL	139
PRODUCER	JALMATILANGLIE-MATTIX	PRODUCER	JALMATILANGLIE-MATTIX	25-24S-36E	840' FNL, 1650' FWL	138
PRODUCER	JALMATHANGLIE MATTIX	PRODUCER	LANGLIE-MATTIX	25-24S-36E	990" FNL, 330" FWL	137
PRODUCER	JALMAT	INJECTOR	LANGLIE-MATTIX	24-24S-36E	990' FSL, 990' FEL	136
INJECTOR	JALMATILANGLIE-MATTIX	PRODUCER	JALMATHANGLIE-MATTIX	24-24S-36E	990" FSL, 1980" FEL	135
INJECTOR	JALMATILANGLIE-MATTIX	PRODUCER	JALMATILANGLIE-MATTIX		330' FSL, 1650' FWL	134
INJECTOR	LANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	19:24S-37E	1980' FSL, 1917' FWL	133
INJECTOR	LANGLIE-MATTIX	PRODUCER	LANGLIE-MATTIX	24-24S-36E	990' FEL,2310' FSL	132
PRODUCER	JALMAT	INJECTOR	LANGLIE-MATTIX	24-24S-36E	1650' FSL, 1650' FWL	130
PRODUCER		PRODUCER	JALMATILANGLIE-MATTIX		1650' FNL, 1587' FWL	129
PRODUCER	JALMATILANGLIE-MATTIX	PRODUCER	JALMATILANGLIE-MATTIX		1650' FEL, 330' FWL	128
PRODUCER	JALMAT	INJECTOR	LANGLIE-MATTIX	24-24S-36E	1650' FNL, 990' FEL	127
INJECTOR	JALMATILANGLIE-MATTIX	PRODUCER	JALMATILANGLIE-MATTIX	24-24S-36E	1650' FNL, 2310' FEL	126
PRODUCER	-MATTIX	PRODUCER	JALMATILANGLIE-MATTIX	24-24S-36E	1650' FNL, 2310' FWL	125
INJECTOR	LANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	19-24S-37E	660' FNL 1917' FWL	124
PRODUCER		PRODUCER	JALMATILANGLIE-MATTIX		330' FNL, 990' FWL	123
INJECTOR	JALMATILANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	24-245-36E	330' FNL, 990' FEL	122
PRODUCER	JALMATILANGLIE-MATTIX	PRODUCER	JALMATILANGLIE-MATTIX	24-24S-36E	990' FNL, 1650' FWL	121
NJECTOR	LANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	24-24S-36E	660' FNL, 1980' FWL	120
INJECTOR	LANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	18-24S-37E	660' FSL, 660' FWL	116
PRODUCER	JALMATILANGLIE-MATTIX	PRODUCER	JALMATHANGLIE-MATTIX	13-24S-36E	900' FSL, 990' FEL	115
INJECTOR	LANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	13-24S-36E	330' FSL, 2310' FEL	114
PRODUCER	JALMATILANGLIE-MATTIX	PRODUCER	LANGLIE-MATTIX	13-24S-36E	4950' FNL, 2970' FEL	113
INJECTOR	JALMATILANGLIE-MATTIX	INJECTOR	LANGLIE-MATTIX	13-24S-36E	330' FSL, 990' FWL	112
NJECTOR		INJECTOR	LANGLIE-MATTIX	13-24S-36E	1980' FWL, 1650' FEL	107
PROPOSED STATUS	L	CURRENT STATUS	CURRENT POOL	SECTION-T-R	LOCATION	WELL

COOPER JAL UNIT
CURRENT AND PROPOSED WELL STATUS
ENHANCED RECOVERY PROJECT AREA

COOPER JAL UNIT CURRENT AND PROPOSED WELL STATUS ENHANCED RECOVERY PROJECT AREA

242 990' FNL, 158 245 1980' FSL, 19	1990' FNL,		241 1650' FNL, 1650' FEL	1980' FSL,	239 1980' FNL, 660' FWL		237 660' FSL, 1980' FEL	236 660' FNL, 198	235 660' FSL, 660' FWL		233 1650' FSL, 990' FEL	1980' FNL,	231 1650' FNL, 330' FEL	1650' FNL,	229 990' FWL, 165			330' FNL,	660' FNL	224 330' FNL, 231	223 330' FNL, 990' FWL		660				217 990' FSL, 2310' FWL				211 2310' FSL, 2310' FW		660' FWL	2310' FNL,	207 2310' FNL, 33	1980' FNL,	205 1980' FNL, 16	WELL LOCATION
1980 FEL 24-2				_		•		1980' FWL 24-2				_							1650' FEL 25-2															_	•		1650' FEL 24-2	SECT
24-245-36E JALMAT		9-24S-37E JALMAT	25-245-36E JALMAT	19-24S-37E JALMAT	30-24S-37E JALMAT		23-245-36E JALMAT	24-24S-36E JALMAT	18-24S-37E JALMAT		13:245-36E JALMAT	30-24S-37E JALMAT	25-24S-36E JALMAT				30-24S-37E JALMAT		25-245-36E JALMAT				***				24:245-36E JALMAT			24-24S-36E JALMAT							24-24S-36E JALMAT	SECTION-T-R CURRENT
																							JALMATILANGLIE-MATTIX			•							LANGLIE-MATTIX	·				POOL
TADOOCT.	PBODIICEP	INJECTOR	NJECTOR	INJECTOR	INJECTOR	INJECTOR	NJECTOR	INJECTOR	NJECTOR	INJECTOR	INJECTOR	PRODUCER	PRODUCER	PRODUCER	PRODUCER	INJECTOR	PRODUCER	NJECTOR	PRODUCER	INJECTOR	PRODUCER	NJECTOR	PRODUCER	NJECTOR	PRODUCER	NJECTOR	PRODUCER	INJECTOR	PRODUCER	NJECTOR	NJECTOR		NACTIVE PRODUCER	PRODUCER	NJECTOR	PRODUCER	NJECTOR	CURRENT STATUS
JALMATILANGLIE-MATTIX		JALMAT	JALMATILANGLIE-MATTIX	JALMAT	JALMATILANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMAT	JALMAT	JALMAT	JALMAT	JALMATILANGLIE-MATTIX	JALMATHANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMATHANGLIE-MATTIX	JALMATYLANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMAT\LANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMAT\LANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMAT\LANGLIE-MATTIX	JALMATHANGLIE-MATTIX	TAMJAL	JALMATILANGLIE-MATTIX	JALMAT	JALMATILANGLIE-MATTIX	JALMATILANGLIE-MATTIX	JALMAT	JALMAT\LANGLIE-MATTIX	JALMATILANGLIE-MATTIX	PROPOSED POOL
FROUGER	ラフラフ・ラクロ	INJECTOR	NJECTOR	INJECTOR	NJECTOR	INJECTOR	INJECTOR	INJECTOR	BUECTOR	INJECTOR	NJECTOR	PRODUCER	PRODUCER	PRODUCER	PRODUCER	INJECTOR	PRODUCER	INJECTOR	PRODUCER	INJECTOR	PRODUCER	INJECTOR	PRODUCER	INJECTOR	PRODUCER	INJECTOR	PRODUCER	INJECTOR	PRODUCER	INJECTOR	NJECTOR	INACTIVE PRODUCER	PRODUCER	PRODUCER	NJECTOR	PRODUCER	INJECTOR	PROPOSED STATUS

ž.

STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

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October 6, 1993

CAMBELL, CARR, BERGE & SHERIDAN
Attorneys at Law
P. O. Box 2208
Santa Fe, New Mexico 87504

RE: CASE NO. 10798

ORDER NO. R-9983

Dear Sir:

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

Sincerely,

Sally E. Martinez

Administrative Secretary

cc: BLM Carlsbad Office

Rick Brown - OCD

David Abbey