

QUALITY PRODUCTION CORP.

P. O. Box 250
Hobbs, New Mexico 88241

Phone (505) 397-2727
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4 February 1994

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P O Box 2088
Santa Fe, NM 87504

FEB - 8 1994

Re: The Wiser Oil Company
Application for Qualification of EOR Project
Caprock Maljamar Unit
Maljamar Grayburg/San Andres Pool
Lea County, New Mexico

10932

Gentlemen:

The Wiser Oil Company hereby applies for qualification of the proposed consolidation and expansion of existing enhanced oil recovery projects for the oil tax rate pursuant to the New Mexico "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5) as implemented by Order No. R-9708. The proposed project is the Caprock Maljamar Unit in the Maljamar Grayburg San Andres Pool, Lea County.

The following information pertinent to the Application is hereby submitted as outlined in Paragraph D.4. of Exhibit "A" to Order No. R-9708:

- a.) The Unit Operator is to be The Wiser Oil Company, at 8115 Preston Rd - Suite 400, Dallas, TX 75225 (214-265-0080) with Quality Production Corp. at P O Box 250, Hobbs, NM 88241 (505-397-2727) being their local agent.
- b.) 1. A plat outlining the Unit Area is enclosed as Exhibit "A". A map, Exhibit A-1, and a tabulation showing the proposed well numbering system for the Unit is also enclosed.

2. The proposed Unit Area includes:

Township 17 South - Range 32 East
Section 13: SE/4
Section 24: All

Township 17 South - Range 33 East
Section 17: All
Section 18: E/2 & SW/4
Section 19: All
Section 20: All
Section 21: W/2 W/2, SE/4 NW/4 & SE/4 SW/4
Section 27: NW/4 SW/4
Section 28: W/2, SE/4 & SW/4 NE/4
Section 29: NE/4 NE/4
Section 33: N/2 NE/4 & SE/4 NE/4.

3. The proposed Unit Area consists of 4160 acres.
4. The project is in the Maljamar Grayburg/San Andres Pool.
- c.) 2. The application for approval of the proposed Caprock Maljamar Unit and Waterflood Project is being filed with the Oil Conservation Division simultaneously with this Application for Qualification for the oil tax rate.
- d.) 1. The Plan of Operations proposes to inject all of the Unit's produced water and fresh Ogallala water as required for make-up of reservoir withdrawal volumes.
2. The proposed Caprock Maljamar Unit is a consolidation and expansion of existing enhanced oil recovery projects on nine individual leases and the Mal Gra Unit, authorized under Oil Conservation Division Order Nos. R-2156, R-2157, R-2769, R-3011, R-3129 and WFX Nos. 132, 139, 149, 160, 171, 173, 185, 200, 211 and 295.
- e.) 1. The current producing wells are the Caprock Maljamar Unit Well Nos.:

2	22	63	98
3	27	65	100
4	29	68	103
5	31	69	148
6	38	71	150
7	40	73	152
9	42	82	166
11	44	83	173
14	52	89	177
16	54	90	179
18	56	94	201
20	58	96	202

The development of the Waterflood Project as outlined in the Plan of Operation will result in most of the existing standard 40-acre location wells being converted to water injection and infill 20-acre wells drilled being the producers.

2. The current active injection wells are the Caprock Maljamar Unit Well Nos.:

17	32	55	91
19	39	59	95
21	41	62	97
26	43	74	99
30	53	86	102

Development of the Waterflood Project as outlined in the Plan of Operation will result in the conversion of most of the existing standard 40-acre location wells to injection.

3. The estimated Capital Expenditures for the proposed Waterflood Project are tabulated by Phase as follows:

	<u>Phase I</u>	<u>Phase II</u>	<u>Phase III</u>	<u>TOTAL</u>
Infill Drilling	\$2 670	\$7 350	\$5 530	\$15 550
WIW Drilling		1 000	1 200	2 200
WIW Conversions	645	860	505	2 010
Facilities	720	1 080	580	2 380
Prod Workovers		100	50	150
WIW Workovers	<u>200</u>	<u>325</u>	<u>270</u>	<u>795</u>
TOTAL	\$4 235	\$10 715	\$8 135	\$23 085


-all figures in thousands.

4. The Total Project Cost is \$65.634 million, considering the estimated operating costs of \$42.549 million.
5. The estimated total value of the additional production to be recovered as a result of the proposed project is \$204.2 million.
6. It is proposed to begin the expansion of the injection program immediately upon receipt of the necessary approvals of the State and Federal agencies.
7. Injection fluid will consist of all produced water and fresh water as required to make-up reservoir withdrawal volumes. The project will attempt to attain an estimated injectivity of 250 BWPD per injection well.
8. The previous waterflood operations on the leases to be included into the proposed Caprock Maljamar Unit were curtailed during the 1970's from an 80-acre five-spot waterflood operation to a water disposal operation only injecting the produced water volumes into an erratic pattern of active injection wells. The Engineering Report by T Scott Hickman & Associates, Inc., dated 31 Dec 92, a copy of which is enclosed, indicates that significant oil reserves remain to be recovered in the Unit Area. Recovery of these estimated additional reserves will require infill drilling to a well spacing of 20 acres per well (from 40 acres) and reinstitution of the waterflood operations on 40-acre five-spot patterns rather than the previous 80-acre patterns. This is, in reality, an entirely new waterflood project, only related to the previous projects by the similar areas and the continued water disposal under the existing waterflood orders.

f.) Production data and other supporting data to show the production history and forecast of oil, gas and water to be produced from the project area are provided in detail in the enclosed Engineering Report.

CERTIFICATION:

I hereby certify that the information stated above is true and correct to the best of my knowledge.


R M Williams, Agent for
The Wiser Oil Company

4 Feb 94
Date

QUALITY PRODUCTION CORP.

P. O. Box 250
Hobbs, New Mexico 88241

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FAX (505) 393-3290

4 February 1994

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P O Box 2088
Santa Fe, NM 87504

Re: The Wiser Oil Company
Application for Statutory Unitization
and Approval of Waterflood Project
Caprock Maljamar Unit
Maljamar Grayburg/San Andres Pool
Lea County, New Mexico

FEB - 5 1994

10931

Gentlemen:

The Wiser Oil Company hereby applies for statutory unitization and approval of the proposed waterflood enhanced oil recovery project for the Caprock Maljamar Unit in the Maljamar Grayburg San Andres Pool of Lea County.

The following information pertinent to the application is submitted as outlined in Section 70-7-5 of the Statutory Unitization Act and under Oil Conservation Division Rule No. 701:

A. 1.) A plat outlining the proposed Unit Area is enclosed as Exhibit "A". A map, Exhibit A-1, and a tabulation showing the proposed well numbering system for the Unit is also enclosed.

2.) The proposed Unit Area includes:

Township 17 South - Range 32 East

Section 13: SE/4

Section 24: All

Township 17 South - Range 33 East

Section 17: All

Section 18: E/2 & SW/4

Section 19: All

Section 20: All

Section 21: W/2 W/2, SE/4 NW/4 & SE/4 SW/4

Section 27: NW/4 SW/4

Section 28: W/2, SE/4 & SW/4 NE/4

Section 29: NE/4 NE/4

Section 33: N/2 NE/4 & SE/4 NE/4.

3.) The proposed Unit Area consists of 4160 acres.

4.) The proposed Unitized Formation shall include the vertical limits extending from the surface of the ground to a lower limit of 5500 feet below the surface.

- B. The application includes a portion of the much larger Maljamar Grayburg/San Andres reservoir which has been fully developed to a 40-acre well spacing density and is bounded by adjacent waterflood projects such as the Conoco MCA Unit, the Cross Timbers Southeast Maljamar Unit, the Penroc Malmar Unit, and the extensive Phillips Leamex lease to the east.
- C. The unitization is proposed to facilitate an infill drilling and waterflood enhanced oil recovery project to promote the conservation of oil and gas by the better utilization of reservoir energy for the recovery of an estimated additional 6.8 million barrels of oil from the Unit Area.
- D. A copy of the proposed Unit Agreement for the Caprock Maljamar Unit is enclosed. The Unit Agreement provides for a Tract Participation based 35% on cumulative production, 35% on current production, and 30% on usable wells to give approximately equal weight to reservoir quality as indicated by cumulative, current income as indicated by current production, and development value as indicated by wells usable for the waterflood project. The Applicant considers the proposed unitization to be fair, reasonable and equitable to all interest owners in the proposed Unit Area.
- E. The Wiser Oil Company, owner of 100% of the Working Interest in the proposed Unit, shall be the Unit Operator with Quality Production Corp. functioning as their local agent. The initial Plan of Operation is outlined in the enclosed Engineering Report by T Scott Hickman & Associates, Inc. dated 31 Dec 92.
- F. The Applicant alleges that:
 - 1.) the unitization is necessary to effectively carry out the proposed infill drilling and waterflood enhanced oil recovery operations to substantially increase the ultimate recovery from the Unit Area,
 - 2.) the engineering evaluation of the reservoir indicates the proposed infill drilling and waterflood operations to be feasible, to prevent waste and to be reasonably expected to increase the recovery of oil and gas from the unitized portion of the Pool,
 - 3.) the estimated \$65.6 million cost of the total project can be anticipated to recover additional production having a value of \$204.2 million,
 - 4.) the proposed unitization and operations will benefit the Working Interest owner (Wiser), the Royalty Interest owners (State of New Mexico - 85.2062% and Federal lands - 14.7938%), and the Overriding Royalty Interest owners.

- 5.) the Operator has secured preliminary approval of the proposed unitization from 100% of the Working Interest owners (Wiser), from the Bureau of Land Management on behalf of the Federal lands, and from the New Mexico Commissioner of Public Lands on behalf of the State lands (copies of the letters of approval are enclosed), and will make a good faith effort to secure the approval of all of the Overriding Royalty Interest owners,
- 6.) the Participation Formula contained in the proposed Unit Agreement is a fair, reasonable and equitable basis for the allocation of the unitized substances to the separately owned Unit Tracts.

The proposed Caprock Maljamar Unit is a consolidation and expansion of existing waterflood projects on nine individual leases and the Mal Gra Unit, authorized under Oil Conservation Division Order Nos. R-2156, R-2157, R-3011, R-3129 and WFX Nos. 132, 139, 149, 160, 171, 173, 185, 200, 211 and 295. The currently active injection wells are the Caprock Maljamar Unit Well Nos.:

17	32	55	91
19	39	59	95
21	41	62	97
26	43	74	99
30	53	86	102

The development of the proposed waterflood project will result in most of the existing standard 40-acre location wells being converted to water injection and infill 20-acre wells being drilled to serve as the producers. Phase I of the proposed waterflood project proposes to establish a 40-acre five-spot injection pattern to include injection into Unit Well Nos.:

19	31	42	54	68
20	32	43	55	
21	39	44	56	
29	40	52	57	
30	41	53	67	

Injection fluid will consist of all the produced water and fresh Ogallala water as required to make-up reservoir withdrawal volumes. The project will attempt to attain an estimated injectivity of 250 BWPD per injection well. Oil Conservation Division Form C-108 and its required supporting data are being prepared and will be submitted prior to the hearing on this application.

The Applicant respectfully requests that the matters of the proposed Statutory Unitization, the Approval of the Waterflood Project and the Qualification of an EOR Project for the oil tax rate, as simultaneously requested by separate letter, be set for hearing before the Oil Conservation Division at the scheduled hearing on 3 March 1994.

Proper notice of this application shall be provided to all parties of interest, as required by the statute and the Oil Conservation Division rules, and evidence thereof shall be presented at the time of the hearing.

Respectfully submitted,

Quality Production Corp.

A handwritten signature in cursive script, appearing to read "R M Williams".

R M Williams, Agent for
The Wiser Oil Company