

CASE 3005: Appli. of AMBASSADOR
OIL CORP. for a waterflood project
in Pearsall (Queen) Pool, Lea Co.

CASE No.

3005

Application,

TRANSCRIPTS,

SMALL Exhibits

ETC.

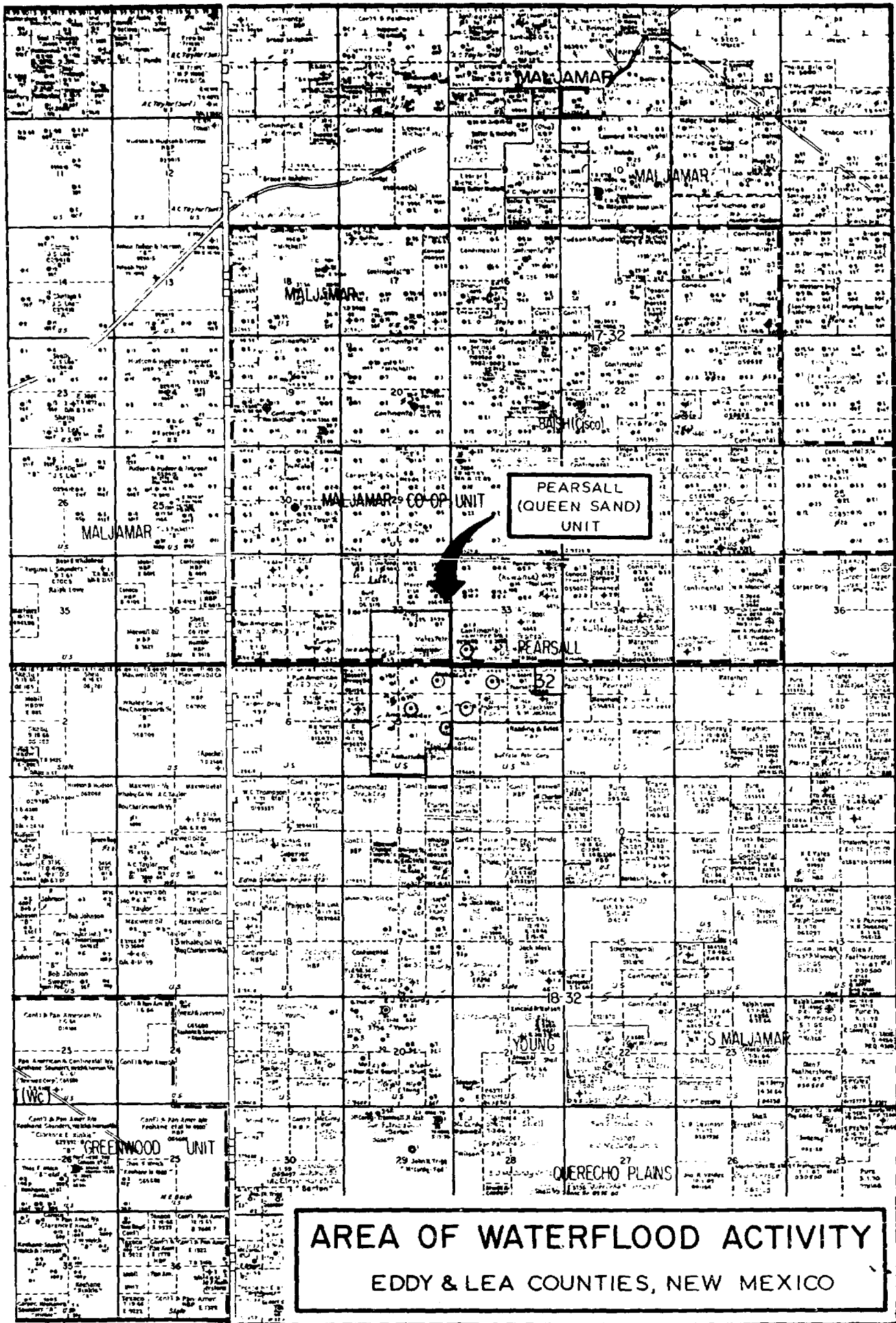
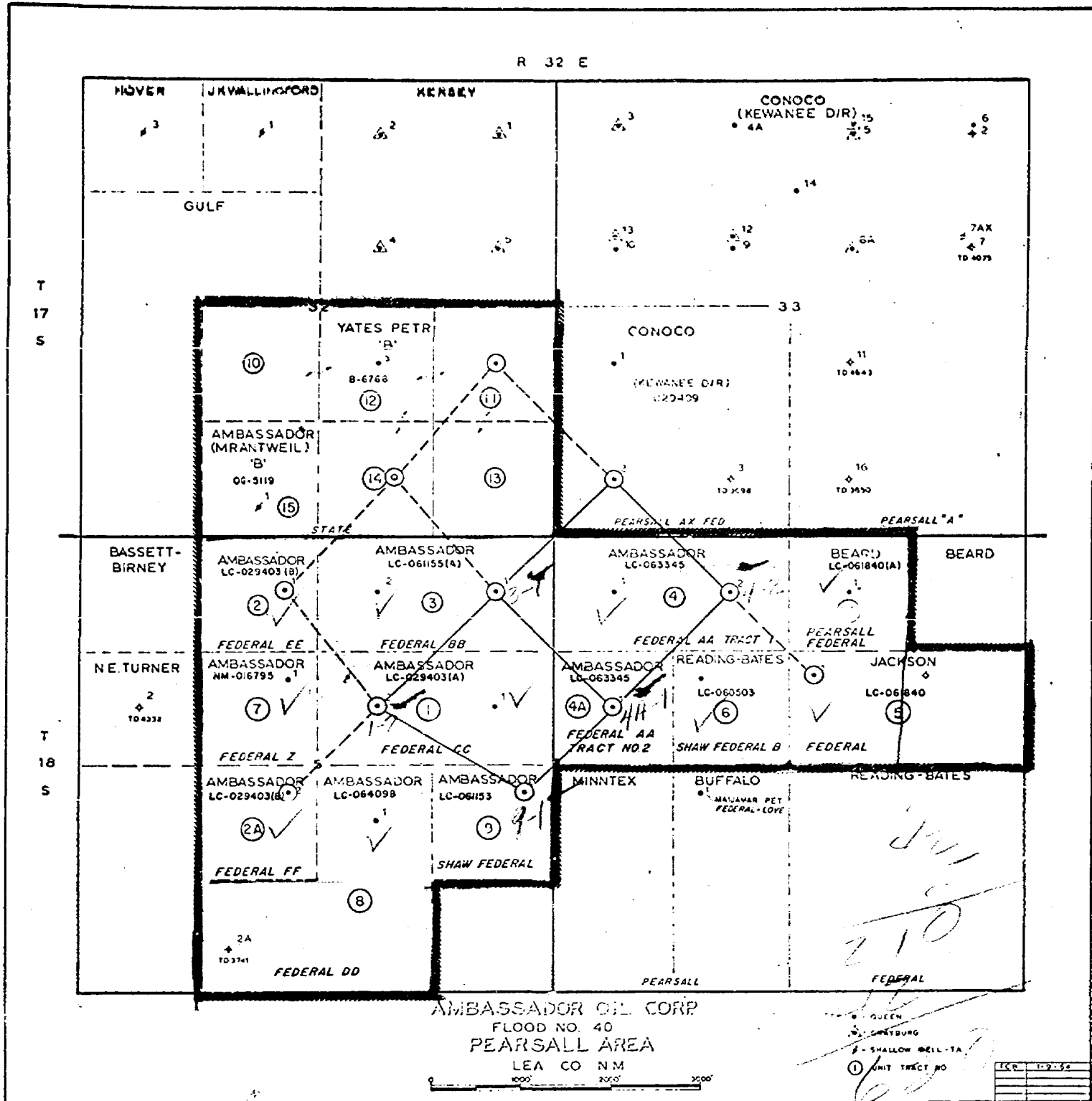


EXHIBIT "A"

①



BEFORE EXAMINER NUTTER

CONSERVATION COMMISSION

EXHIBIT NO. 2
3004-3005

EXHIBIT "B"

- ⊙ PROPOSED INJECTION WELLS
- PROPOSED PILOT AREA
- ⊙ PROPOSED INJ. WELL LOCATION
- EXPANDED DEVELOPMENT PROGRAM
- ① TRACT NO.
- UNIT BOUNDARY LINE

AMBASSADOR OIL CORPORATION
 PEARSALL QUEEN SAND UNIT.

WELL No. 1-2	WELL No. 3-1	WELL No. 4-2	WELL No. 4A-1	WELL No. 9-1
1,051'-8 5/8" 50 SXS.CMT.	1,119'-8 5/8" 75 SXS.CMT.	1,015'-8 5/8" 100 SXS.CMT.	1,116'-8 5/8" 75 SXS. CMT.	73'- 8 5/8" 100 SXS.CMT.
3,650'-7" 100 SXS.CMT.	3,500'-7" 100 SXS.CMT.	3,470'-7" 200 SXS.CMT.	3,500'-7" 100 SXS. CMT.	3,789'-5 1/2" 250 SXS. CMT.

BEFORE EXAMINER NUTTER
 OIL CONSERVATION COMMISSION
Apple EXHIBIT NO. 3
 CASE NO. 3004, 3005

EXHIBIT "C"
 INJECTION WELL CASING PROGRAM

February 28, 1964

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

Dear Mr. Porter:

Reference is made to the application of Ambassador Oil Corporation which seeks approval of the Russell Queen Sand Unit and Water-flood Project, which was submitted on February 11, 1964.

In view of the statement contained in the letter to me which accompanied the application "some waters will be injected through tubing and packer set immediately above the pay zone within the production casing," it appears that no threat of contamination to the fresh waters which may exist in the area will occur. Therefore, this office offers no objection to the granting of this application, provided you are furnished with an accurate description of the source of the water to be injected when the selection has been made and further provided that we are supplied with an analysis of the source water.

Very truly yours,

S. E. Reynolds
State Engineer

FBI/ma

cc-Mr. E. A. Riley
Mr. James E. Jennings
F. H. Hennighausen

By:
Frank E. Izby
Chief
Water Rights Div.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
<i>Appel</i> EXHIBIT NO. <u>7</u>
CASE NO. <u>3004, 3005</u>

NEW MEXICO OIL AND GAS COMMISSION
WATERFLOOD APPLICATION DATA

FIELD PEARSALL COUNTY LEA
OPERATOR AMBASSADOR OIL CORPORATION DATE 2-11-64
LEASE PEARSALL QUEEN SAND UNIT
RESERVOIR QUEEN DISCOVERY DATE JANUARY, 1940

I. RESERVOIR AND FLUID CHARACTERISTICS

A. INFORMATION ON ENTIRE RESERVOIR

1. NAME OF FORMATION QUEEN SAND
2. ESTIMATED PRODUCTIVE AREA OF ENTIRE RESERVOIR 1,500 ACRES
3. COMPOSITION (SAND, LIMESTONE, DOLOMITE, ETC.) SAND
4. TYPE OF STRUCTURE STRATIGRAPHIC
(INCLUDE CROSS-SECTION AND STRUCTURE MAPS)
5. TYPE DRIVE DURING PRIMARY PRODUCTION SOLUTION GAS
6. ORIGINAL RESERVOIR PRESSURE ESTIMATED 850 PSI
7. WAS GAS CAP PRESENT ORIGINAL? NO AT PRESENT NO

B. INFORMATION ON PROPOSED PROJECT AREA

(INCLUDE PLAT OF LEASE (S) TO BE FLOODED, SHOWING PRODUCING WELLS, PROPOSED INJECTION WELLS, AND OFFSET WELLS).

1. NUMBER OF PRODUCTIVE ACRES IN LEASE (S) TO BE FLOODED 960
2. AVERAGE DEPTH TO TOP OF PAY (FEET) 3,650
3. AVERAGE EFFECTIVE PAY THICKNESS (FEET) 15
4. AVERAGE POROSITY (%) 11
5. AVERAGE HORIZONTAL PERMEABILITY (MDS.) 15 RANGE 10-60
6. CONNATE WATER CONTENT (% OF PORE SPACE) 32
7. GRAVITY OF OIL (API) 36 VISCOSITY UNKNOWN

II. PRIMARY PRODUCTION HISTORY

1. DATE FIRST WELL COMPLETED ON LEASE (S) JANUARY 1940
2. OIL, GAS, WATER PRODUCTION BY MONTHS SINCE DISCOVERY. (GRAPHICALLY AS WELL AS IN TABULAR FORM.)
3. STAGE OF DEPLETION OF PROJECT AREA STRIPPER
4. NUMBER OF PRODUCING WELLS ON EACH LEASE IN PROJECT AREA 14
5. AVERAGE DAILY OIL PRODUCTION PER WELL AT PRESENT TIME 7
6. CUMULATIVE OIL PRODUCTION TO DATE FROM LEASE (S) 901,136

III. RESULTS - EXPECTED

1. ESTIMATED ORIGINAL OIL IN PLACE (BBLs.) 6,500,000
2. ESTIMATED OIL SATURATION AT PRESENT TIME (% OF PORE SPACE) 49
3. ESTIMATED RESIDUAL OIL SATURATION AT ABANDONMENT 33
4. ESTIMATED ULTIMATE ADDITIONAL OIL THAT WILL BE RECOVERED AS A DIRECT RESULT OF INJECTION (BBLs.) 990,000

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
<i>Appl</i> EXHIBIT NO. <u>8</u>
<u>3004, 3005</u>

IV. INJECTION

1. SOURCE OF INJECTED WATER (FORMATION, DEPTHS) COMMERCIAL WATER COMPANY
2. FRESH OR SALT WATER FRESH
3. FLOOD PATTERN AND SPACING 5 SPOT - 80 ACRES
4. INITIAL INJECTION PRESSURE TO BE USED (PSI) 700
5. ESTIMATED INITIAL PER WELL RATE OF INJECTION (BBLs.) 500
6. LIST COMPLETE INJECTION WELL DATA ON REVERSE SIDE OF THIS SHEET.

INJECTION WELL DATA

WELL No.	1-2	3-1	4-2	4A-1	9-1
SUR. CSG.	SIZE	8 5/8"	8 5/8"	8 5/8"	8 5/8"
	LENGTH	1,051	1,119	1,015	1,116
	SXS. CEMENT	50	75	100	75
PROD. CSG.	SIZE	7"	7"	7"	7"
	LENGTH	3,650	3,500	3,470	3,500
	SXS. CEMENT	100	100	200	100
TUBING	LENGTH	3,650	3,470	3,450	3,470
	PACKER DEPTH	3,630	3,470	3,450	3,470
INJ.	DEPTH	3,700	3,650	3,670	3,750
	THRU CSG. OR TUBING?	TUBING	TUBING	TUBING	TUBING

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 11, 1964

EXAMINER HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 943-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

IN THE MATTER OF:

Application of Ambassador Oil Corporation
for a unit agreement, Lea County, New
Mexico.

Application of Ambassador Oil Corporation
for a waterflood project, Lea County, New
Mexico.

Application of Continental Oil Company for
a waterflood project, Lea County, New
Mexico.

Case No. 3004
3005
3006

BEFORE: DANIEL S. NUTTER, EXAMINER.

TRANSCRIPT OF HEARING



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MR. NUTTER: We will call Case 3004.

MR. DURRETT: Application of Ambassador Oil Corporation for a unit agreement, Lea County, New Mexico.

MR. NUTTER: We will also call 3005.

MR. DURRETT: Application of Ambassador Oil Corporation for a waterflood project, Lea County, New Mexico.

MR. NUTTER: Cases 3004 and 3005 will be consolidated for purposes of hearing.

MR. JENNINGS: James T. Jennings of Roswell appearing for Ambassador Oil Corporation, and we have one witness, Mr. Riley.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin and Fox, Santa Fe, representing Continental Oil Company. Would you like to consolidate 3006 with this too?

MR. NUTTER: We will call Case 3006.

MR. KELLAHIN: If Mr. Jennings has no objection.

MR. JENNINGS: We have no objection.

MR. DURRETT: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico.

MR. NUTTER: Case 3006 will be consolidated. We have consolidated 3004, 5 and 6.

MR. DURRETT: Do you have a witness, Mr. Kellahin?

MR. KELLAHIN: Yes.

MR. DURRETT: If you will have the witnesses stand I'll



swear them all at the same time.

(Witnesses sworn.)

E. A. RILEY

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. JENNINGS:

Q Would you state your name and occupation, please?

A E. A. Riley, Assistant Vice President and Manager of Secondary Recovery Division for Ambassador Oil Company stationed in Fort Worth, Texas.

Q Mr. Riley, have you had occasion to testify before this Commission on many occasions in the past?

A Yes, I have.

MR. JENNINGS: Mr. Examiner, are the witness's qualifications acceptable?

MR. NUTTER: They are.

Q Mr. Riley, are you familiar with the application for the approval of the Pearsall Queen Sand Unit and the unit agreement itself?

A Yes, sir, I am.

(Whereupon, Applicant's Exhibit No. 4 was marked for identification.)



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PAGE 4

Q I hand you what has been marked Exhibit 4 and ask you if you would identify that and also identify the unit area?

A Exhibit 4 is a pictorial presentation of the unit area which is included within the dashed line on the map, the area being located generally in, or partially in Section 32, Township 17 South, 32 East, and portions of Sections 4 and 5, Township 18 South, Range 32 East, Lea County, New Mexico.

Q There are approximately 960 acres in this unit?

A That is correct.

Q What types of lands are embraced therein, Mr. Riley?

A Approximately 75% of United States federal lands, and the remainder is state land.

Q Under the terms of the unit agreement, who is the operator?

A Ambassador Oil Corporation has been selected as initial unit operator.

Q Do you have full authority to carry out the terms and operations and development under the unit agreement?

A Yes, it was stipulated in the unit agreement.

Q Is the unit agreement substantially in the same form as has heretofore been approved by the Commissioner of Public Lands and the Oil Conservation Commission and the United States Geological Survey?



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A Yes, it is.

Q Do you feel that the proposed secondary recovery operations can be more efficiently and economically carried out under the terms of the unit agreement?

A Yes, I do.

Q Will this lead to the maximum recovery?

A It should.

Q What percentage of the operators of the working interest owners now have approved the working unit agreement?

A We have slightly in excess of 76% of the working owners ratified the documents, the remainder have verbally agreed and are in the process of sending them in to us. Approximately 75% have ratified the unit documents. The remainder of the royalty interests are being secured at this time.

Q Will the interest that you have qualified or have indicated their intention to qualify meet the requirements of the unit agreement?

A Yes, it will.

Q Have you requested approval by the United States Geological Survey?

A Yes, we have.

(Whereupon, Applicant's Exhibit No. 5 was marked for identification.)



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Q I hand you here what has been marked as Exhibit 5 and ask you to identify that.

A Exhibit 5 is a letter from the United States Department of Interior dated August 26, 1923 wherein the acting director gave tentative approval to the unit area and designated it as one logical for unitization.

Q Have you made an application for approval to the Commissioner of Public Lands?

A Yes, we have.

Q Please refer to Exhibit 6, Mr. Riley, and identify that, please.

(Whereupon, Applicant's Exhibit No. 6 was marked for identification.)

A Exhibit 6 is a letter dated August 22, 1963 wherein the unit supervisor of the unit division approved the unit agreement as to form and content.

Q Do you feel that the proposed unit will lead to a more efficient and orderly development of the proposed waterflood project?

A Yes, sir, it will.

Q Do you think that it is necessary to allow you to completely develop the project?

A Yes, I do.



Q Will Mr. Riley sign the affidavit on the side of the unit will you submit an affidavit in duplicate or original counterpart of the application?

A Yes, sir.

Q Mr. Riley, for the record I would like to state that we will not offer a unit agreement, are there is a copy attached or furnished with the application.

Q Mr. Riley, do you propose to initiate a waterflood project in connection with the unit?

A Yes, sir.

(Whereupon, applicant's Exhibit no. 1 was marked for identification.)

Q Please refer to Exhibit 1 and outline the proposed project and delineate the injection wells and give the location of the wells.

A Exhibit 1 is an areal map showing the area in excess of two-mile radius of the subject unit. The unit boundary has been inserted, the red pencil, and the proposed injection well including the Continental well have been circled in red. The proposed unit injection wells would be wells identified as 9-1 located in the Northeast Quarter of the Southeast Quarter, Section 5, Township 18 South, Range 32 East; Well 4A-1, located in the Southwest Quarter of the Northwest Quarter, Section 4, Township 18 South,

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Range 32 East; Well 4-2 located in the Northeast Quarter of the Northwest Quarter, Section 4, Township 18 South, Range 32 East; Well 1-2 located in the Southwest Quarter of the Northeast Quarter, Section 5, Township 18 South, Range 32 East; and Well 3-1 located in the Northeast Quarter of the Northeast Quarter of Section 5, Township 18 South, Range 32 East.

(Whereupon, Applicant's Exhibit No. 2 was marked for identification.)

Q Referring to what has been marked Exhibit 2, would you outline the proposed pilot area?

A Exhibit 2 is also a map showing the unit boundary within the hashed line, the proposed pilot injection wells are wells encircled in a solid line and joined with a solid line.

Q Does this show the proposed plan of development?

A It shows the expanded plan of development wherein the wells to be converted at a later date are encircled with a solid line and joined with a dashed line. This is also presented in Exhibit 4.

Q Exhibit 4 being a large map?

A Being a larger map of Exhibit 2, yes.

Q What zone do you propose to flood and what zone is covered by the unit agreement?

A We propose to flood the Queen zone, which is the middle

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section of the Queen, and it is the zone unitized in the document unit agreement and is stipulated in the definition of the unitized formation.

Q Referring back to Exhibit 2, does it reflect the producing wells?

A Yes, it does. They are the wells conventionally designated with the well designation of the circle.

Q What is the general condition of the production from these wells at this time?

A Most of the wells are at or below economic limit, with the exception of two wells, the J. W. Beard Pearsall Federal 1 and the Jackson Federal No. 1. The Beard well is producing approximately ten barrels a day and the Jackson Federal is slightly below allowable. They were later-drilled wells in the reservoir and have not yet depleted that small section of the reservoir.

Q The Jackson well is located in the South Half of the Northeast Quarter of Section 4?

A That is true, and the Beard well in the Northwest of the Northeast of Section 4.

Q Mr. Riley, are there any floods in the immediate area?

A The only water injection program that to my knowledge is being conducted in the Meljamar Pool to the north some three or four miles.

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Q Now your study of the matter and your experience, do you feel that waterflooding will be feasible and will result in an increased ultimate recovery in this area and prevent waste?

A Yes, it should.

Q What type of water do you propose to inject, Mr. Riley?

A Our plans contemplate this being to secure shallow water production which should be relatively brackish in the unit area.

If we're unsuccessful we will purchase water from a water company in the area.

Q What quantities do you propose to inject?

A We anticipate that the injection rate should be in the order of 500 barrels per well per day.

Q Did you furnish the office of the State Engineer with a copy of your application and have you heard from the State Engineer concerning the application?

A Yes, we did notify the State Water Engineer and in a letter dated February 28, 1964, said letter being included in the exhibits as Exhibit 7, he approved our plan of operations.

(Whereupon, Applicant's Exhibits Nos. 3 & 7 were marked for identification.)

Q Please refer to Exhibit 3 and outline your proposed casing program.

A Exhibit 3 is a diagrammatic sketch of the casing program



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and Wells 1-2, 3-1, 4-2 and 4i-1 and 9-1 wherein it shows that the wells have approximately a thousand feet in excess of surface pipe with the exception of 9-1 and all wells have production strings to approximately 35 to 3600 feet. Our plan of injection is to utilize tubing and packer and to inject through these.

Q Mr. Riley, please refer to what has been marked as Exhibit A and identify that and state briefly what it reflects. Exhibit 8, excuse me.

(Whereupon, Applicant's Exhibit No. 8 was marked for identification.)

A Exhibit 8 is a general waterflood application sheet carrying geological and engineering information on the proposed unit.

Q What is the general depth of the area?

A The general average depth of the top of the pay to be flooded is 3650 feet. Do you want me to give other information from this exhibit or not?

Q You might give any reservoir characteristics that you might have.

A Average effective pay thickness has been estimated at 15 feet, with average porosity approximately 11%, average estimated horizontal permeability 15, with a range from 10 to 60; connate water content, 32% of pore space, gravity of the oil is 36 degrees



API and the viscosity is unknown.

The unit area has produced approximately 900,000 barrels of oil to the date of the application and we anticipate that we will recover an equal amount under secondary recovery.

Q Are there other proposed flood projects or pilot projects in the area, Mr. Riley?

A Continental Oil Company has tentatively entered into a cooperative line agreement wherein they will convert that Pearsall A. X. Federal Well No. 2, located in the Southwest of the Southwest of Section 33, Township 17 South, Range 32 East. This well is contemplated to be as one of the six pilot injection wells.

Q Do you have anything further that you wish to offer to the Commission concerning the ultimate recovery or the feasibility of this project?

A No, I do not.

Q Mr. Riley, were what has been identified as Exhibits 1, 2, 3, 4 and 8 prepared by you or at your insistence and under your instruction?

A Yes, they were.

Q Are Exhibits 5, 6 and 7 copies of letters which you received?

A Yes, they are.

MR. JENNINGS: We would offer Exhibits 1 through 8.

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admitted in evidence.

(The same is admitted to exhibit as
(through a copy offered and
admitted in evidence.)

Q. Is that correct, Mr. Board?

A. Yes, sir.

Q. Thank you, Mr. Board.

PROCEEDINGS

IN RE: JACKSON

Q. Mr. Board, I believe that you saw that the wells
in the project area that you have discussed are stripper wells.
I didn't see the production figures. Do you have an average
production that they have been making in the past?

A. As shown on Exhibit 8, I believe the average daily oil
production per well is seven barrels, with the range that I men-
tioned previously of essentially half a barrel to slightly below
allowable for the one well in the eastern edge of the reservoir.

Q. That good well was either this Jackson well or the Board?

A. The Jackson well, that is true. It was drilled approxi-
mately four years ago and as far as I know, that entire sector of the
reservoir has not been drained as yet.

Q. Do you expect to get a response from your Flood?

A. I would think so.



MR. DURRETT: I think that's all I have.

BY MR. NUTTER:

Q On Exhibit 8 you mentioned there were 14 producing wells in the project area. Just which wells are those 14?

A Referring to Exhibit 4, those would be the Yates State 1 and 3, the Ambassador Federal AA, Tract 1-1 and 2, the Federal AA Tract No. 2, Well No. 1, the Reading and Bates Shaw Federal B-1, the Jackson Federal No. 1, the Beard Pearsall Federal No. 1 and in Section 5, Ambassador Federal B, B-1 and 2, Federal C, C-1 and 2, D, D-1, E, E-1, F, F-2, G-1 and the Shaw Federal No. 1. Is my count wrong there?

Q I had counted 17 previously and I get 17 again. I was wondering, perhaps, if some of the wells off on the Northwest might not be considered in the project area at this immediate time.

A That is true.

Q And was the reason they were left out.

A The wells I named were in the unit area, that's right, in the project area there are 14.

Q What did you say the Beard Pearsall Federal --

A Approximately ten barrels to the best of my knowledge.

Q And the Jackson is just slightly less?

A Slightly less than allowable.

Q How about your AA Tract 1 No. 2, that's going to be

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converted, what's it capable of producing?

A It's presently producing only about three barrels a day.

Q With reference to the unit agreement, what percentage of the working interest ownership did you say was committed?

A Slightly in excess of 76%, but I personally contacted each of the remaining working interest owners and they assured everything was all right and it was just a matter of getting them signed and sent back to us.

Q So you expect to have 100% of the working interest?

A 100%, that is true.

Q Are there any fee lands in here?

A No fee lands.

Q Is injection in each instance to be down tubing over a packer?

A That's correct.

Q Or under a packer?

A That is correct.

MR. NOTTER: Any further questions of Mr. Riley? He may be excused.

(Witness excused.)

MR. NOTTER: Did you have anything further, Mr. Jennings?

MR. JENNINGS: We have nothing further.

MR. NOTTER: Mr. Kellahin.



MR. KELLAHAN: Yes, sir.

(Whereupon, Applicant's Exhibits Nos. 1 through 4 were marked for identification.)

VICTOR T. LYON

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHAN:

Q Would you state your name, please?

A Victor T. Lyon, L-y-o-n.

Q By whom are you employed and in what position?

A I am employed by Continental Oil Company as Senior Engineer in the Hobbs District Office, located in Hobbs, New Mexico.

Q Have you ever testified before the Oil Conservation Commission and made your qualifications a matter of record?

A Yes, sir.

MR. KELLAHAN: Are the witness's qualifications acceptable?

MR. TUTTLE: They are.

Q Are you familiar with the application of Continental Oil Company in 3006 which has been consolidated for the purposes of the hearing with Ambassador's Cases 3004 and 3005?

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A Yes, I am.

Q What is proposed by Continental in this application?

A This is the application of Continental Oil Company for permission to inject water into our Pearsall A. X. Well No. 2 located 660 feet from the South line and 660 feet from the West line, Section 33, Township 17 South, Range 32 East, in Lea County, New Mexico.

Q Referring to what has been marked as Exhibit No. 1, would you identify that exhibit and discuss the information shown on it?

A Yes, sir. Exhibit No. 1 is a location and ownership plat showing the Ambassador Pearsall Queen Sand Unit which is outlined in green and Continental Oil Company's cooperative water-flood project area outlined in red. This area consists of all of Section 33 and the West Half of the Northwest Quarter of Section 34 in Township 17 South, Range 32 East. The proposed injection well, Pearsall A. X. Well No. 2 is circled in red.

Q Has the Pearsall area operated by Continental been unitized as yet?

A No, sir, this is a block of federal acreage which we have not unitized, but inasmuch as the federal government is the primary royalty owner we feel can be unitized in a short period of time when the unit is, when the project is ready to be expanded.



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Q Now, referring to what has been marked as Exhibit No. 2, would you identify that exhibit and discuss the information on it?

A Yes, sir. Exhibit No. 2 is a schematic diagram showing the tubular goods employed in the well and the cementing information. It shows the depth of casing and the size and setting depths of the tubing and packer to be employed. We propose to inject water into the open hole interval from 3439 to 3647 feet.

Q Is that the same type of completion that will be used by Ambassador in their portion of the injection program?

A Yes, sir, it is.

Q Will the packer be pressure tested?

A Yes, sir, it will be pressure tested before injection is commenced.

Q Have you prepared some information sheets showing information on the waterflood project?

A Yes, sir. Exhibit No. 3 is a data sheet showing essentially the same information introduced by Ambassador in Case 3005. It has been modified to apply to our project area where this was necessary. I have added to this exhibit two sheets in addition to those submitted with the application which are decline curves of the pool area and of Continental project area and of the Pearsall A. X. Wells Nos. 1 and 2.

Q At this time would you consider the area as substantially



depleted on primary recovery?

A Yes, sir. Our proposed injection well is our best well and it has been producing approximately three barrels per day.

Q Referring now to what has been marked as Exhibit No. 4, would you discuss that exhibit, please?

A Exhibit No. 4 is a location and ownership plat showing in greater detail the project area. The proposed injection wells are shown by the red triangles and are connected by solid lines. The possible expansion of the project shows the possible injection wells by the triangles and connected by dashed lines.

Q Is that exhibit in agreement with the proposal that was submitted by Ambassador?

A It is so far as the injection wells are concerned. I'd like to point out that there are two instances where the Ambassador unit boundary is in error in that.

Q You mean in error on your exhibit or their exhibit?

A On our exhibit. On this Exhibit No. 4. The draftsman had not made this change when I came up here, but it shows, well, it should be corrected by adding the Southeast Quarter of the Northeast Quarter of Section 4 and the Southwest Quarter of the Southeast Quarter of Section 5. This would make it agree with our Exhibit No. 1 and Ambassador's exhibits.

Q Have you anything further to add to your testimony, Mr.

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Lyon?

A Yes, I am... active projects... consolidation... be the same... Ambassador... plately reported...

Q The company... remain to the... might be expected... would it not?

A Yes, sir.

Q Do you require... permitted by...

A Yes, sir.

Q How... what your...

A Yes, sir, they...

Q... evidence...

Q... admitted...

(In response, ...)



MR. KELLAMIN: That completes the direct examination of the witness.

MR. NUTTER: Any questions of Mr. Lyon?

MR. IRBY: Frank Irby, State Engineer's Office.

MR. NUTTER: Mr. Irby.

CROSS EXAMINATION

BY MR. IRBY:

Q When you expand this, Mr. Lyon, will the well construction and equipment on the additional wells used for injection be the same as in this Pearsall A. K. No. 2?

A I think essentially they will be the same. To my knowledge we will inject through tubing under a packer.

Q And this, if this isn't the case, you will notify me?

A Yes, sir.

Q Please. I believe that Ambassador said they were going to use lined tubing, is this true in your case?

A I'm not certain of that, Mr. Irby. It probably will depend on the quality of water that will be available. To my knowledge we don't have any present plan of using lined tubing.

Q You do intend to recircle any produced water, do you not?

A Yes, sir. In the event of water breakthrough and continued operation, we will almost certainly use the produced water for injection purposes.

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MR. IRBY: Thank you.

BY MR. NUTTER:

Q On your data sheet you showed four wells in the project area, which would those four producing wells be?

A These are the total producing wells from this pool in the project area and that includes the Pearsall A. X. Wells No. 1 and 2, and the Pearsall A Numbers 9 and 10. Those wells are located in Units E, F, L and M, Section 33.

Q Is it your intent to reenter and examine No. 3?

A Yes, sir. We anticipate that we will reenter No. 3 within 60 to 90 days after the commencement of water injection in No. 2.

Q Has that well actually been plugged?

A I don't believe so.

Q Does it have casing in it?

A I believe it does. I have a report here that should give me the answer.

Q You might look up 16 while you are at it.

A I'm not certain of the casing program in those two wells, but I believe that the casing is still in place.

Q Do you know if either one of those two wells has produced in the past?

A Yes. I'm not certain that this is given in here, but

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it's my understanding that No. 3 has produced and No. 16 was abandoned after testing.

Q On completion?

A It was drilled at an early date and was before we had available stimulation methods that are available today, and it did not produce.

Q You ultimately plan to use No. 16 as an injection well, don't you?

A Yes, sir.

Q It's our pattern?

A Yes, sir.

Q At any rate, prior to putting No. 3 and No. 16 in operation a casing program similar to the injection --

A Excuse me.

Q --injection Well No. A. X. 2 would be utilized, is that a fair assumption to make?

A I found the information that you requested, Mr. Nutter, 2,612 feet of 7" casing has been pulled from Pearsall A. X. No. 3. Prior to injecting we will adequately case the well either with a full length casing string or with a casing bowl so that the casing will be adequate.

Q Well No. 3 will be a producing well. How about No. 16, do you have the data on it?

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PAGE 24

A Yes, sir. Surface casing only was set in No. 16, and it has been plugged with what appears to be an acceptable plugging program which we normally use with the Commission's consent. It will have to be redrilled or the plugs drilled out and casing set.

MR. NUTTER: Thank you. Are there any other questions of Mr. Lyon? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: Nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3004, 3005 or 3006? We will take the cases under advisement and recess the hearing until 1:30.

(Whereupon, a recess was held until 1:30 P.M.)



BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
AMBASSADOR OIL CORPORATION FOR THE
APPROVAL OF THE PEARSALL QUEEN SAND
UNIT AND WATERFLOOD PROJECT, LEA
COUNTY, NEW MEXICO

NO. 3005

APPLICATION FOR APPROVAL OF
PEARSALL QUEEN SAND UNIT AND WATERFLOOD PROJECT

Comes now the applicant, Ambassador Oil Corporation,
whose address is Box 9338, Fort Worth, Texas, and files herewith
three copies of the proposed Unit Agreement for the development
and operation of the Unit Area of the Pearsall Queen Sand Unit
and hereby makes application for approval of said Unit as pro-
vided by law and for further approval of a Waterflood Project
pursuant to Rule 701 of the Rules and Regulations of the Commis-
sion and in support thereof states:

1. That the Unit Area covers the following described
land in Lea County, New Mexico, to-wit:

Township 17 South, Range 32 East, N.M.P.M.

Section 32: SE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$

Township 18 South, Range 32 East, N.M.P.M.

Section 4: S $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$
Section 5: NE $\frac{1}{4}$, E $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$,
NE $\frac{1}{4}$ SE $\frac{1}{4}$

containing 960 acres, more or less.

2. That all of the lands embraced in the Unit Area are
federal lands except the SE $\frac{1}{4}$ and the E $\frac{1}{2}$ SW $\frac{1}{4}$ of section 32, Township

BOOKET MADE

2-28-64

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17 South, Range 32 East, containing 240 acres, which is State land.

3. That the applicant, Ambassador Oil Corporation, is designated as Unit Operator in the Unit Agreement and, as such, is given the authority under the terms thereof to carry on the operations for the discovery, development and production of the unitized substances.

4. That the Unit Agreement is in substantially the same form as Unit Agreements heretofore approved by the Commissioner of Public Lands of the State of New Mexico, the New Mexico Oil Conservation Commission and the United States Geological Survey. It is believed that the secondary recovery operations can be more economically and efficiently carried on under the terms of said Agreement to the end that the maximum recovery will be obtained and that the Unit Agreement is in the interest of conservation of oil and gas and the prevention of waste as contemplated by the statutes of the State of New Mexico.

5. That application is being made to the Commissioner of Public Lands and the United States Geological Survey for the approval of the Unit Agreement.

6. That in excess of 80% of the working interest owners have heretofore executed the Unit Agreement and the Agreement provides that any party owning rights in the unitized substance who does not commit such rights to the Unit Agreement before the effective date thereof may thereafter become a party by subscribing to such Unit Agreement or by ratifying the same as provided by the terms of the said Agreement.

7. That the proposed Unit will lead to a more efficient and orderly development and operation of the Waterflood Project proposed by the applicant in the Unit Area and is necessary to allow the applicant to completely develop and operate the waterflood Project.

8. That within 30 days after the effective date of the Pearnall Queen Sand Unit Agreement, the applicant will file with the Commission an executed or original counterpart of the Agreement, and in the event of a subsequent joinder of any party or expansion or contraction of the Unit Agreement, as provided by the terms thereof, the Unit Operator will file with the Commission within 30 days thereafter counterparts of the Unit Agreement reflecting the subscription of those interests having joined or ratified.

9. Applicant desires to initiate a Waterflood Project to inject fresh water into existing wells on the following described tract within the Unit Area:

<u>WELL NUMBER</u>	<u>LOCATION</u>
S-1	NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 5, T-18-S, R-32-E
4A-1	SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 4, T-18-S, R-32-E
4-2	NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 4, T-18-S, R-32-E
1-2	SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 5, T-18-S, R-32-E
3-1	NE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 5, T-18-S, R-32-E

10. That all of the wells in the Unit Area have reached an advanced stage of depletion and are stripper wells.

11. That applicant feels that waterflooding the Queen Sand is feasible and that flooding will result in the increased ultimate recovery of oil and will, therefore, prevent waste.

12. That in support of said Application and in accordance with the provisions of Rule 701, applicant submits herewith the following exhibits:

Exhibit A - a plat showing the location of the proposed injection wells and the location of all other wells and leases within a two mile radius

Exhibit B - a plat showing proposed injection wells, Unit Area, proposed Pilot Area, injection well locations and development program

Exhibit C - Injection Well Casing Program


13. Applicant proposes to inject fresh water into the Queen Sand at an approximate depth of 3650 feet and to inject approximately 500 barrels per well per day of water to be developed at the location or purchased from a public utility, which water will be commingled with produced water.

WHEREFORE, applicant requests the Commission set this down for hearing before an examiner at an early date, publish the notice required by law and, after hearing, issue its Order:

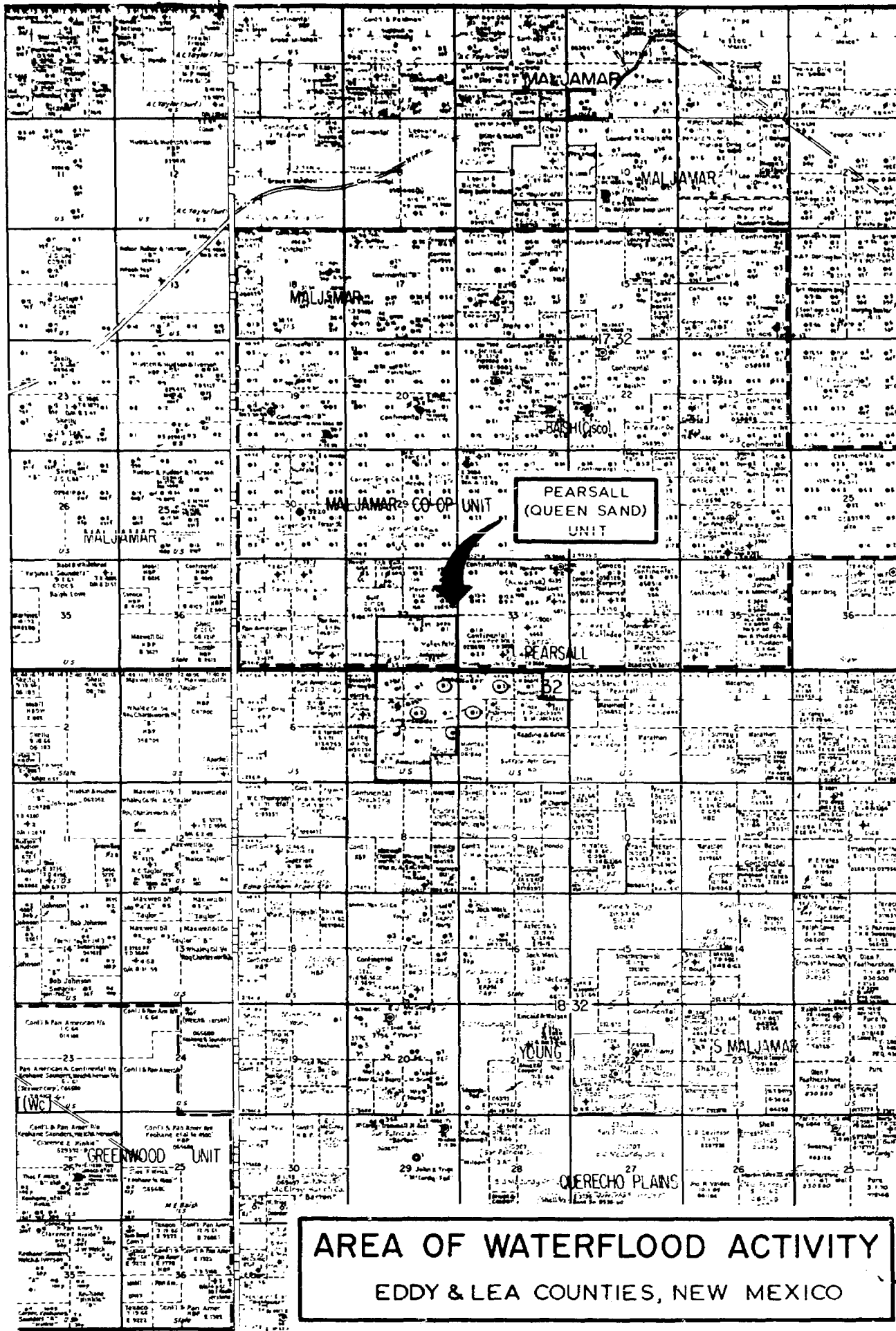
1. Approving the Pearsall Queen Sand Unit Agreement.
2. Authorizing the Waterflood Project covering the lands embraced in the Unit Agreement.
3. Establishing rules for the operation of the flood within the area and for administrative expansion and of conversion of additional wells to water injection wells.

Respectfully submitted,

AMBASSADOR OIL CORPORATION

By 
James T. Jennings
Attorney for Applicant
P. O. Box 1180
Roswell, New Mexico

AMBASSADOR OIL CORPORATION - PEARSALL QUEEN SAND UNIT



AREA OF WATERFLOOD ACTIVITY
EDDY & LEA COUNTIES, NEW MEXICO

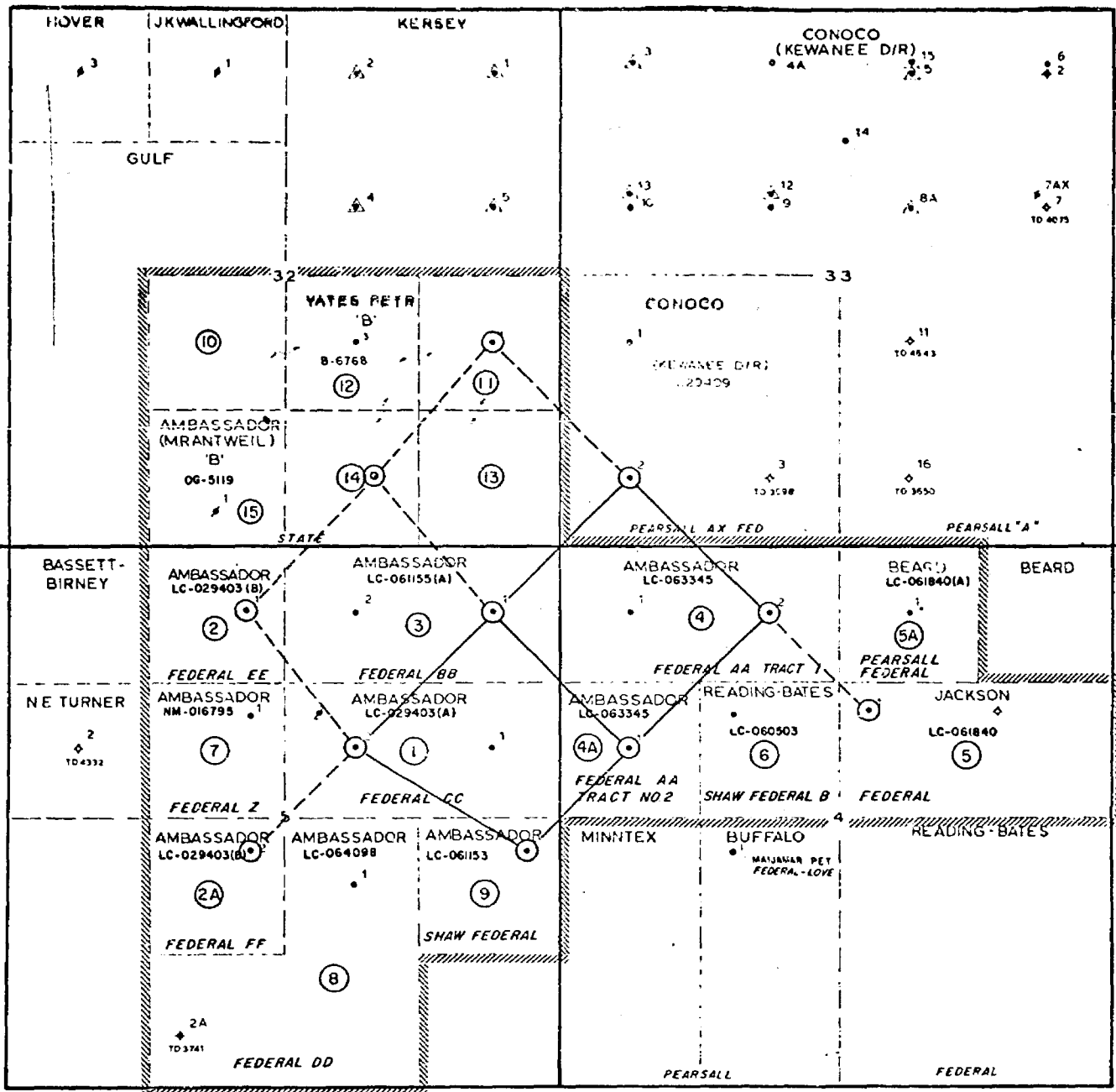
EXHIBIT "A"

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AMBASSADOR OIL CORP
 FLOOD NO. 40
 PEARSALL AREA
 LEA CO NM

- QUEEN
- GRAYBURG
- SHALLOW WELL-TA
- ① UNIT TRACT NO

TCB	1-9-60

EXHIBIT "B"

Case 2005

- ⊙ PROPOSED INJECTION WELLS
- PROPOSED PILOT AREA
- ⊙ PROPOSED INJ. WELL LOCATION
- EXPANDED DEVELOPMENT PROGRAM
- ① TRACT NO.
- ////// UNIT BOUNDARY LINE

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

March 18, 1964

Mr. James T. Jennings
Attorney at Law
Post Office Box 1180
Roswell, New Mexico

Dear Sir:

Enclosed herewith is Commission Order No. R-2672, entered in Case No. 3005, approving the Ambassador Pearsall Queen Unit Waterflood Project.

According to our calculations, when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 630 barrels per day.

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

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

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OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

-2-

Mr. James T. Jennings

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

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Enclosure

cc: Mr. Jason Kellahin

Oil Conservation Commission
Hobbs, New Mexico

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3005
Order No. R-2672

APPLICATION OF AMBASSADOR OIL CORPORATION
FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
March 11, 1964, at Santa Fe, New Mexico, before Examiner
Daniel S. Nutter.

NOW, on this 18th day of March, 1964, 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,

FINDS:

(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 Pearsall Queen Sand Unit Agreement has been
approved by the Commission by Order No. R-2669; that the Pearsall
Queen Sand Unit Area comprises 960 acres, more or less, of State
and Federal land in Townships 17 and 18 South, Range 32 East,
NMPM, Lea County, New Mexico, as more fully described in said
order.

(3) That the applicant, Ambassador Oil Corporation, seeks
permission to institute a waterflood project in the Pearsall
(Queen) Pool in the Pearsall Queen Sand Unit Area by the injec-
tion of water into the Queen formation through five wells located
within said unit area.

(4) That the project area is in an advanced state of
depletion and the majority of the wells therein should properly
be classified as "stripper" wells.

(5) That the proposed waterflood project is in the interest
of conservation and should result in recovery of otherwise unreco-
verable oil, thereby preventing waste.

-2-

CASE No. 3005
Order No. R-2672

(6) That the subject application should be approved and the project should be governed by the provisions of Rule 701 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Ambassador Oil Corporation, is hereby authorized to institute a waterflood project in the Pearsall (Queen) Pool in the Pearsall Queen Sand Unit Area by the injection of water into the Queen formation through tubing and packer set immediately above the pay zone in the following-described five wells:

TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM
LEA COUNTY, NEW MEXICO

Section 4

Well No. 4A-1, located in the SW/4 NW/4
Well No. 4-2, located in the NE/4 NW/4

Section 5

Well No. 1-2, located in the SW/4 NE/4
Well No. 3-1, located in the NE/4 NE/4
Well No. 9-1, located in the NE/4 SE/4


(2) That the subject waterflood project shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including the allowable provisions thereof, and including the provisions with respect to expansion of the waterflood project.


(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

(4) 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.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JACK M. CAMPBELL, Chairman


E. S. WALKER, Member


A. L. PORTER, JR., Member & Secretary

esr/

EXHIBIT "B"
 PEARSALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
<u>Federal Lands</u>							
T18S-R32E 3	Section 5: S/2 NE/4	80	LC-029403(A) 12-1-59	12 1/2% -25%	Roy H. Smith & Hugh L. Johnson Jr., d/b/a Roy H. Smith Drilling Co.	M. E. Baish - 1 1/2% Martin Yates III - 1% Irene E. Walker - 2 1/2% William E. Walker - 1 1/2% Elaine M. Walker - 1 1/2% \$110,000.00 PP out of 25% of the WI to Roy H. Smith.	Ambassador Oil Corporation - 100% (to 5,000 ft.)
T18S-R32E 3A	Section 5: Lot 3 (NE/4 NW/4)	40	LC-029403(B) 11-1-61	12 1/2%	Hugh L. Johnson Jr. & Roy H. Smith	Subject to the \$110,000.00 and \$25,000.00 PP described under Tract 3 above.	Ambassador Oil Corporation - 100% (to 5,000 ft.)
T18S-R32E 3B	Section 5: NE/4 SW/4	40	LC-029403(B) 11-1-61	12 1/2%	Hugh L. Johnson Jr. & Roy H. Smith	Subject to the \$110,000.00 and \$25,000.00 PP described under Tract 3 above.	Ambassador Oil Corporation - 100% (to 5,000 ft.)

EXHIBIT "B" - (Cont)
 PEARSALL, QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
1188-R32E 4	Section 5, Lots 1 & 2 (N/2 NE/4)	80	LC-061155(A) 12-1-59	12 1/2% -25%	Frank Brock & R. T. Brock d/b/a Brock Drilling Company	M. E. Baish - 1 1/2% Martin Yates III - 1% Irene E. Walker - 2 1/2% Wm. E. Walker - 1 1/2% Elaine M. Walker - 1 1/2% \$66,000.00 PP out of 25% of the WI to: 1/2 - Frank Brock 1/2 - R. T. Brock After payout of above PP a \$14,000.00 PP shall commence out of 12 1/2% of the WI to: 1/2 - Frank Brock 1/2 - R. T. Brock	Ambassador Oil Corporation - 100% (To base of Queen Sand)
1188-R32E 5	Section 4: Lots 3 & 4 (N/2 NW/4)	80	LC-063345 11-1-60	12 1/2% 33-1/3%	Frank Brock R. T. Brock Alfred Hunter Utter, Executor of Estate of Alpha McAtee, Deceased	Brock Drilling Co. 1/16 of WI Security-First Nat. Bank of Los Angeles, 1/16 of WI Trustee \$99,000.00 PP out of 25% of WI to: 1/4 - Frank Brock 1/4 - R. T. Brock 1/2 - Alfred H. Utter After payout of above PP, a \$21,000.00 PP shall commence out of 12 1/2% of the WI to: 1/4 - Frank Brock 1/4 - R. T. Brock 1/2 - Alfred Hunter Utter	Ambassador Oil Corporation - 100% (To base of Queen Sand)

EXHIBIT "B" - (Cont.)
 PEARSALE QUEEN SAND UNIT
 LEA COUNTY NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OR RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
1188 R12E	Section 4, SW/4 NW/4	40	IC 061845 11-1-60	Schedule "G"	Fred Brock F T Brock Alfred Hunter Wiley, Executor of Estate of Alpha McAtee, Deceased	Subject to the same \$99,000.00 and \$21,000.00 PP as described under Tract 5	Ambassador Oil Corporation (To base of Queen Sand)
1188 R12E	Section 4, SW/4 NW/4	40	IC 061840(A) 11-1-60	Schedule "G"	Norton Oil Company	Buffalo Petroleum Corporation	Norton Oil 50% Board Oil Co. 25% F.W. Holloway J.C. - 13.374% E.R. Morrison 5% K.V. Dahl 2-1/12% Donice Lee Ballard Anderson 4-1/6%
1188 R12E	Section 4, S/2 NE/4	80	IC-061840 11-1-60	Schedule "G"	B. M. Jackson	Buffalo Petroleum Corporation South Central Enterprises	B.M. Jackson 100%
1188 R12E	Section 4, SE/4 NW/4	40	IC-066503 11-1-60	Schedule "G"	Virginia Woods Shaw	Virginia Woods Shaw	Reading & Bates, Inc. 100%

1/9/64

EXHIBIT "B" - (Cont)
 PEARSALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
1145-R32E 7	Section 5; SE/4 NW/4	40	NM-016795 2-1-55	Schedule "B"	Ambassador Oil Corporation	None	Ambassador Oil Corp. 100% (to 5,000 ft.)
1145-R32E 8	Section 5; SE/4 SW/4, & W/2 SE/4	120	LC-064098 12-1-59	Schedule "C"	C. N. Ochiltree	M. E. Baish 1 1/2% Martin Yates III 1% Irene E. Walker 2 1/2% Wm. E. Walker 1-1/4% Elaine M. Walker 1-1/4%	Ambassador Oil Corp. 100% (to 5,000 ft.)
1145-R32E 9	Section 5; NE/4 SE/4	40	LC-061153 12-1-59	Schedule "C"	Virginia Woods Shaw	M. E. Baish 1 1/2% Martin Yates III 1% Irene E. Walker 2 1/2% Elaine M. Walker 1-1/4% Wm. E. Walker 1-1/4% Virginia Woods Shaw 5% (to 5,000 ft.)	Ambassador Oil Corp. 100% (to 5,000 ft.)

Subject to the \$10,000.00 and \$25,000.00 PP described under Tract 3 above.

EXHIBIT "B" - (Cont)
 PEARSALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
<u>State Lands</u>							
T17S-R32E 10	Section 32: NE/4 SW/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	Ada M. Trostel Yates Bros. 3% 4.1666%	S.P. Yates 24% Dixon & Yates 28.1667% Yates Petroleum Corporation 28.1667%
T17S-R32E 11	Section 32: NE/4 SE/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	Laura G. Brown Yates Bros. 3.125% 4.1667%	S.P. Yates 28.125% Dixon & Yates 28.125% Yates Petroleum Corporation 23.9583%
T17S-R32E 12	Section 32: NW/4 SE/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	Claude Johnston Yates Bros. 3% 4.1666%	S.P. Yates 28.1667% Dixon & Yates 28.1667% Yates Petroleum Corporation 24%
T17S-R32E 13	Section 32: SE/4 SE/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	C.H. Malort Yates Bros. 3% 4.1666%	S.P. Yates 28.1667% Dixon & Yates 28.1667% Yates Petroleum Corporation 24%
T17S-R32E 14	Section 32: SW/4 SE/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	Selina Reese Yates Bros. 3% 4.1666%	S.P. Yates 28.1667% Dixon & Yates 28.1667% Yates Petroleum Corporation 24%

EXHIBIT "B" - (Cont)
 PEARSCALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDE ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
T1/S-R32E 1 st	Section 32, SE/4 SW/4	40	OG-5119 2-17-59	12%	Gulf Oil Corporation	None	Ambassador Oil Corporation 100%

EXHIBIT "B" - (Cont)
PEARSALL QUEEN SAND UNIT
LEA COUNTY, NEW MEXICO

TOTALS

12 Federal Tracts	721.69 Acres	75.04% of Unit Area
5 State of New Mexico Tracts 240	Acres	24.96% of Unit Area
<hr/>		
	961.69 Acres	100% of Unit Area

EXHIBIT "C"
 PEARSALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

SCHEDULE OF UNIT PARTICIPATION

<u>TRACT NO.</u>	<u>DESCRIPTION</u>	<u>SERIAL NO. & LEASE DATE</u>	<u>PHASE I - PERCENT TRACT PARTICIPATION IN UNIT</u>	<u>PHASE II - PERCENT TRACT PARTICIPATION IN UNIT</u>
1	S/2 NE/4 Sec. 5 T18S R32E	LC-029403(A) 12-1-59	2.847724	13.152701
2	Lot 3 (NE/4 NW/4) Sec. 5 T18S R32E	LC-029403(B) 11-1-61	4.150530	3.155215
2A	NE/4 SW/4 Sec. 5 T18S R32E	LC-029403(B) 11-1-61	7.944053	4.083941
3	Lots 1&2 (N/2 NE/4) Sec. 5 T18S R32E	LC-061155(A) 12-1-59	0.624893	11.749836
4	Lots 3&4 (N/2 NW/4) Sec. 4 T18S R32E	LC-063345 11-1-60	8.458948	23.454551
4A	SW/4 NW/4 Sec. 4 T18S R32E	LC-063345 11-1-60	-0-	5.018021
5A	N/2 NE/4 Sec. 4 T18S R32E	LC-061840(A) 9-22-39	21.833242	6.506314
5	S/2 NE/4 Sec. 4 T18S R32E	LC-061840 11-1-60	43.182348	7.822372
6	SE/4 NW/4 Sec. 4 T18S R32E	LC-060503	7.810969	6.906015
7	SE/4 NW/4 Sec. 5 T18S R32E	NM-016795 2-1-55	0.379501	1.766453
8	SE/4 SW/4 & W/2 SE/4 Sec. 5 T18S R32E	LC-064098 12-1-59	0.796097	4.283037
9	NE/4 SE/4 Sec. 5 T18S R32E	LC-061153 12-1-59	-0-	1.318795

Rev. 9-23-63

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EXHIBIT "C" - (Cont)
 PEARSALE QUEEN SAND UNIT
 IEA COUNTY, NEW MEXICO

SCHEDULE OF UNIT PARTICIPATION

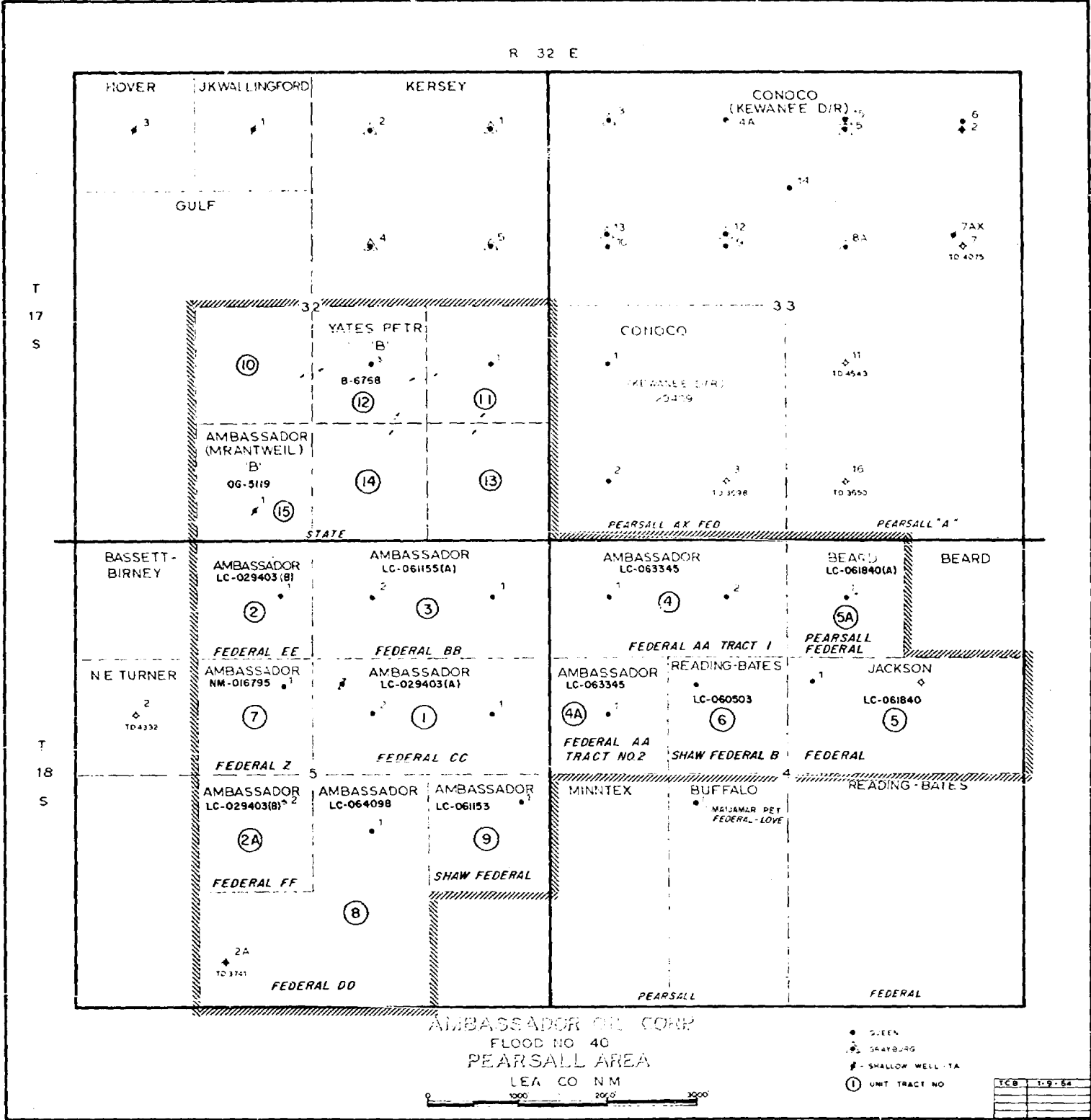
<u>TRACT NO.</u>	<u>DESCRIPTION</u>	<u>SERIAL NO. & LEASE DATE</u>	<u>SCHEDULE OF UNIT PARTICIPATION</u>	
			<u>PHASE I - PERCENT PARTICIPATION IN UNIT</u>	<u>PHASE II - PERCENT PARTICIPATION IN UNIT</u>
10	NE/4 SW/4 Sec. 32 T17S R32E	E-6768	-0-	0.520833
11	NE/4 SE/4 Sec. 32 T17S R32E	E-6768	1.261199	5.711548
12	NW/4 SE/4 Sec. 32 T17S R32E	E-6768	0.710496	2.686547
13	SE/4 SE/4 Sec. 32 T17S R32E	E-6768	-0-	0.520834
14	SW/4 SE/4 Sec. 32 T17S R32E	E-6768	-0-	0.520834
15	SE/4 SW/4 Sec. 32 T17S R32E	OG-5119 2-17-59	-0-	0.812153

EXHIBIT "C" (Cont)
PEARSALL QUEEN SAND UNIT
LEA COUNTY, NEW MEXICO

SUMMARY OF
WORKING INTEREST UNIT PARTICIPATION

	<u>TOTAL PARTICIPATION IN UNIT</u>	
	<u>PHASE I</u>	<u>PHASE II</u>
Ambassador Oil Corporation	25.201746	68.804703
Janice Lee Ballard Anderson	0.909718	0.271096
John M. Beard	5.458311	1.626579
K. V. Dahl	0.454859	0.135548
Dixon & Yates	0.691355	3.495563
F. W. Holloway, Jr.	3.002071	0.894618
B. M. Jackson	43.182348	7.822372
Minntex Oil Company	10.916621	3.253157
E. R. Monson	1.091662	0.325316
Reading & Bates, Inc.	7.810969	6.906015
S. P. Yates	0.588985	2.975470
Yates Petroleum Corporation	0.691355	3.495563
	<hr/>	<hr/>
	100.000000	100.000000

R 32 E



AMBASSADOR OIL CORP
 FLOOD NO 40
 PEARSALL AREA
 LEA CO NM

● SWEEN
 ● Slatyburg
 ◆ SHALLOW WELL - TA
 ① UNIT TRACT NO

TCB	1-9-54

UNIT AGREEMENT
PEARSALL QUEEN SAND UNIT
Lea County, New Mexico

Use 3005

INDEX

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EXHIBIT "A" (Map of Unit Area)

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EXHIBIT "C" (Schedule of Unit Participation)

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION OF THE
PEARSALL QUEEN SAND UNIT
Lea County, New Mexico

NO. _____

THIS AGREEMENT, entered into as of the _____ day of _____, 1963,
by and between the parties subscribing, ratifying or consenting hereto, and
herein referred to as "Parties Hereto",

W I T N E S S E T H :

THAT, WHEREAS, the parties hereto are the owners of working, royalty or
other oil or gas interests in the Unit subject to this Agreement; and,

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is
authorized by an Act of the Legislature (Sec. 3, Chap. 88, Laws 1943 as amended
by Sec. 1 of Chap. 162, Laws of 1951, Chap. 7, Art. 11, Sec. 39, N.M.S. 1953
anno) to consent to or approve this Agreement on behalf of the State of New
Mexico, insofar as it covers and includes lands and mineral interests of the
State of New Mexico; and,

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is
authorized by an Act of the Legislature (Sec. 3, Chap. 88, Laws of 1943, as
amended by Sec. 1, Chap. 162, Laws of 1951, Chap. 7, Art. 11, Sec. 41, N.M.S.
1953 anno) to amend with the approval of the lessee, any oil and gas lease
embracing State lands so that the length of the term of said lease may coincide
with the term of such unitized development and operation of State lands; and,

WHEREAS, the Oil Conservation Commission of the State of New Mexico is
authorized by law (Chap. 72, Laws of 1935, as amended by Chap. 193, Laws of
1937, Chap. 166, Laws of 1941, and Chap. 168, Laws of 1949) to approve this
Agreement, and the conservation provisions hereof; and,

WHEREAS, the Mineral Leasing Act of February 25, 1920, (41 Stat. 437, as
amended, 30 U.S.C. Sections 181 et seq.) authorizes Federal lessees and their
representatives to unite with each other or jointly or separately with others
in collectively adopting and operating a cooperative or unit plan of develop-
ment or operation of any oil or gas pool, field or like area or any part
thereof for the purpose of more properly conserving the natural resources
thereof whenever determined and certified by the Secretary of the Interior to
be necessary or advisable in the public interest; and,

WHEREAS, the parties hereto hold sufficient interests in the Pearsall Queen Sand Unit covering the land hereinafter described to give reasonably effective control of operation therein; and,

WHEREAS, it is the purpose of the parties hereto, to enable institution and consummation of secondary recovery operations, conserve natural resources, prevent waste and secure the other benefits obtainable through development and operation of the area subject to this Agreement under the terms, conditions and limitations herein set forth.

NOW, THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this Agreement their entire respective interests in the below defined Unit Area, and agree severally among themselves as follows:

SECTION 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid, pertinent regulations, including operating and unit plan regulations, heretofore issued thereunder and valid, pertinent and reasonable regulations hereafter issued thereunder are accepted and made a part of this Agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this Agreement; and as to non-Federal lands, the oil and gas operating regulations in effect as of the effective date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the State in which the non-Federal land is located, are hereby accepted and made a part of this Agreement.

SECTION 2. UNIT AREA AND DEFINITIONS. For the purpose of this Agreement, the following terms and expressions as used herein shall mean:

(a) "Unit Area" is defined as those lands specified on Exhibit "A" hereof, and such land is hereby designated and recognized as constituting the Unit Area; the lands described in said Exhibit "A" are described as:

NEW MEXICO PRINCIPAL MERIDIAN, NEW MEXICO

LEA COUNTY, NEW MEXICO

T-18-S, R-32-E

Sec. 4: NW/4; S/2 NE/4 & NW/4 NE/4

Sec. 5: NE/4; N/2 SE/4; SW/4 SE/4; E/2 SW/4; E/2 NW/4

T-17-S, R-32-E

Sec. 32: SE/4; E/2 SW/4

and containing 961.69 acres, more or less.

(b) "Commissioner" is defined as the Commissioner of Public Lands of the State of New Mexico

(c) "Commission" is defined as the Oil Conservation Commission of the State of New Mexico.

(d) "Director" is defined as the Director of the United States Geological Survey.

(e) "Secretary" is defined as the Secretary of the Interior of the United States of America.

(f) "Department" is defined as the Department of the Interior of the United States of America.

(g) "Supervisor" is defined as the Oil and Gas Supervisor of the United States Geological Survey.

(h) "Queen Sand" is defined as and shall mean that heretofore established underground reservoir, a member of the Guadalupe Series, a part of the Permian System, which is found from 3655 to 3693 feet, in the John M. Beard Pearsall Federal #1 Well, located in the Northwest Quarter of the Northeast Quarter (NW/4 NE/4) of Section 4, Township 18 South, Range 32 East, Lea County, New Mexico, N.M.P.M.

(i) "Unitized Formation" is defined as that portion of the Queen Sand plus the immediate ninety seven foot interval below effectively committed to this Agreement.

(j) "Unitized Substances" is defined as and shall mean all of the oil and gas contained in or produced from the Unitized Formation.

(k) "Current Production Rate" is defined as that rate of production of the Unitized Substances, in standard 42 gallon U.S. barrels, between 7:00 A.M. April 1, 1963, and 7:00 A.M. October 1, 1963, (as determined by the Commission's monthly reports, Form C-115).

(l) "Remaining Primary Reserves" is defined as that amount of Unitized Substances, 85,665 barrels, less any amount attributed to tracts which do not qualify, which will be produced from the Unitized Formation underlying the said Unit Area and run to the pipeline from 7:00 A.M. July 1, 1963, to an economic producing rate of 60 barrels of oil per well per month (as determined by the duly appointed Engineering Subcommittee of the said Unit utilizing the conventional production decline curve extrapolation method).

(m) "Ultimate Primary Recovery" is defined as that amount of Unitized Substances, 986,801 barrels, less any amount attributed to tracts which do not qualify, which will be produced from the Unitized Formation underlying the said Unit Area and run to the pipeline from inception of production to an economic producing rate of 60 barrels of oil per well per month (as determined by the Commission's monthly reports, Form C-115 and the duly appointed Engineering Subcommittee of the said Unit utilizing the conventional production decline curve extrapolation method).

(n) "Productive Surface Acres" is defined as that amount of surface acres within the boundaries of the said Unit which have been determined to be capable of producing Unitized Substances from the Unitized Formation (as determined by the duly appointed Engineering Subcommittee of the said Unit utilizing conventional engineering and geological information).

(o) "Usable Well" is defined as a well which is now completed in the Unitized Formation (as defined), and which has production casing in it, properly placed and cemented so as to afford a means of effectively producing oil or gas from or injecting water into the Unitized Formation. Such well must be in an active or temporarily abandoned condition at this time. No permanently plugged and abandoned wells to be acceptable as usable wells.

(p) "Phase I" is defined as that period of time between 7:00 A.M. of the effective date of this Agreement and 7:00 A.M. of the first day of the month next

following the month in which the Remaining Primary Reserves 85,665 barrels, have been produced (as determined by the Commission's monthly reports, Form C-115). During this period of time Phase I of the Schedule of Unit Participation as shown on Exhibit "C" will be in effect.

(q) "Phase II" is defined as that period of time between 7 00 A. M. of the first day of the month next following the month in which the Remaining Primary Reserves, 85,665 barrels, have been produced (as determined by the Commission's monthly reports, Form C-115) and the date of termination of this Agreement. During this period of time Phase II of the Schedule of Unit Participation as shown on Exhibit "C" will be in effect.

(r) "Working Interest" is defined as the right to search for, produce and acquire Unitized Substances, whether held as an incident of ownership of mineral fee simple title, under an oil and gas lease, or otherwise held.

(s) "Working Interest Owner" is defined as and shall mean any party owning a Working Interest, including a carried working interest owner, holding an interest in Unitized Substances by virtue of a lease, operating agreement, fee title or otherwise, which interest is chargeable with and obligated to pay or bear, either in cash or out of production, or otherwise, all or a portion of the cost of drilling, developing and producing the Unitized Substance from the Unitized Formation and operating thereof hereunder.

(t) "Royalty Interest" or "Royalty" is defined as an interest other than a Working Interest in or right to receive a portion of the Unitized Substances or the proceeds thereof and includes the royalty interest reserved by the lessor by an oil and gas lease and any overriding royalty interest, oil payment interest, net profits contracts, or any other payment or burden which does not carry with it the right to search for and produce Unitized Substances.

(u) "Royalty Owner" is defined as and shall mean the owner of a Royalty Interest.

(v) "Unit Operating Agreement" is defined as and shall mean any agreement or agreements (whether one or more) entered into (separately or collectively) by and between Unit Operator and the Working Interest Owners as provided in Section 9 (Accounting Provisions and Unit Operating Agreement), infra, and shall be styled "Unit Operating Agreement, Pearsall Queen Sand Unit, Lea County, New Mexico".

(w) "Paying Quantities" is defined as production of Unitized Substances in quantities sufficient to pay for the cost of producing same from wells on the unitized land.

(x) "Unit Manager" is defined as the person or corporation appointed by the Working Interest Owners to perform the duties of the Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Section 8 (Successor Unit Operator) hereof.

(y) "Tract Participation" is defined as that percentage of Unitized Substances produced from the Unitized Formation which is allocated to a Tract under this Agreement.

(z) "Unit Participation" of each Working Interest Owner is defined as the sum of the percentages obtained by multiplying such Working Interest Owner's fractional Working Interest in each tract by the Tract Participation of such tract.

SECTION 3 EXHIBITS. Exhibit "A" attached hereto is a map showing, to the extent known to the Unit Operator, the Unit Area and the boundaries and identity of tracts and leases in said Unit Area. Exhibit "B" attached hereto is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each tract, percentage ownership of each Working Interest Owner in each tract and kind of ownership of oil and gas interests. However, nothing herein or in the said schedule or

in said map or schedule as owned by such party. Exhibit "C" attached hereto is a schedule showing to the extent known to the Unit Operator, the Tract Participation of each Tract and the Unit Participation of each Working Interest Owner during Phase I and Phase II of participation in the said Unit. Exhibits "A", "B", and "C" shall be revised by the Unit Operator whenever changes render such revision necessary, and at least two copies of such revision shall be filed with the Commissioner, and not less than six copies thereof shall be filed with the Supervisor.

SECTION 4. EXPANSION. The above-described Unit Area may when practicable be expanded to include therein any additional tract or tracts regarded as reasonably necessary or advisable for the purposes of this Agreement. Such expansion shall be effected in the following manner:

(a) The Working Interest Owner or owners of a tract or tracts desiring to bring such tract or tracts into this Unit, shall file an application therefor with Unit Operator requesting such admission.

(b) Unit Operator shall circulate a notice to each Working Interest Owner of the proposed expansion, setting out the basis for admission, the unit participation to be assigned to each such tract, and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise) if 90 per cent of the Working Interest Owners (on the basis of unit participation) have agreed to such tract or tracts being brought into the Unit, then Unit Operator shall:

(1) After preliminary concurrence by the Director, prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reason therefor, the basis for admission of the additional tract or tracts, the tract participation to be assigned thereto and the proposed effective date thereof, preferably the first day of a month subsequent to the date of notice; and,

(2) Deliver copies of said notice to the Commissioner, the Supervisor, each Working Interest Owner, Lessee and Lessor whose interests are affected, (mailing copy of such notice to the last known address of each such Owner) and to the Lessee and Lessor whose interests are proposed to be committed, advising such parties who are already committed that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion and soliciting joinders from the owners of interests in the lands to be admitted; and,

(3) File, upon the expiration of said thirty (30) day period as set out in (2) immediately above and provided that objections of not more than ten per cent (10%) of the Working Interest Owners have been filed thereto, with the Commissioner, Director and the Commission the following: (a) Comprehensive statement as to mailing said notice of expansion; (b) An application for such expansion in sufficient number for appropriate approval and distribution; and (c) An instrument containing the appropriate joinders in compliance with the participation requirements of Section 13 (Tracts Qualified for Unit Participation) and Section 30 (Nonjoinder and Subsequent Joinder), infra;

provided, however, if a dissenting Working Interest Owner owns more than a ten

per cent (10%) voting interest. It must be joined in such dissent by at least one other Working Interest Owner.

The expansion shall, after due consideration of all pertinent information and upon approval by the Commissioner and the Director and the Commission, become effective as of the date prescribed in the notice thereof or on such other more appropriate date as set by the Commissioner and the Director and Commission in the order or instrument approving such expansion. The revised Tract Participations of the respective tracts included within the Unit Area prior to such enlargement shall remain in the same ratio one to another.

SECTION 5. UNITIZED LAND AND UNITIZED SUBSTANCES. All oil and gas in all of the hereinabove described and subsequently admitted land effectively committed to this Agreement, are herein called "Unitized Substances, insofar only as the same may be found in the Queen sand, together with the pertinent surface rights, are unitized under the terms of this Agreement and said land shall constitute land referred to herein as "Unitized Land" or "Land Subject to this Agreement".

SECTION 6. UNIT OPERATOR. Ambassador Oil Corporation, a Delaware corporation, is hereby designated as Unit Operator, and by signing this instrument as Unit Operator, it agrees and consents to accept the duties and obligations of Unit Operator for the operation, development and production of Unitized Substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interests in Unitized Substances, and the term "Working Interest Owner" when used herein shall include or refer to Unit Operator as the owner of a Working Interest when such an interest is owned by it.

SECTION 7. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners, the Commissioner and the Supervisor, unless a new Unit Operator shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

Upon default or failure in the performance of its duties or obligations hereunder, the Unit Operator may be subject to removal by seventy five per

cent (75%) of the committed Working Interest Owners (on the basis of Unit Participation) exclusive of the Working Interest Owner who is the Unit Operator. Such removal shall be effective upon notice thereof to the Commissioner and the Supervisor.

In all such instances of effective resignation or removal, until a successor to Unit Operator is selected and approved as hereinafter provided, the Working Interest Owners shall be jointly responsible for the performance of the duties of the Unit Operator and shall, not later than thirty (30) days before such resignation or removal becomes effective, appoint a Unit Manager to represent them in any action to be taken hereunder.

The resignation or removal of Unit Operator under this Agreement shall not terminate its right, title or interest as the owner of a Working Interest or other interest in Unitized Substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all equipment, books, and records, materials, appurtenances and any other assets, used in conducting the Unit Operations and owned by the Working Interest Owners (including any and all data and information which it might have gained or assembled by reason of its operation of the Unit Area) to the new duly qualified successor Unit Operator or to the Unit Manager if no such new Unit Operator is elected, to be used for the purpose of conducting Unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment and appurtenances needed for the preservation of any wells. Nothing herein contained shall be construed to relieve or discharge any Unit Operator who resigns or is removed hereunder for any liability or duties accruing or performable by it prior to the effective date of such resignation or removal.

SECTION 8. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, the Working Interest Owners shall select a successor Unit Operator by a majority vote of the Working Interest Owners (on the basis of Unit participation), provided no Working Interest Owner who has been Unit Operator and who has been removed may vote for self-succession. Such selection shall not become effective until (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and (b) the selection shall have been filed with the Commissioner and the Supervisor. If no successor Unit Operator or Unit Manager is selected and

qualified as herein provided, the Commissioner and the Director, at their election, may declare this Agreement terminated.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. Costs and expenses incurred by Unit Operator in conducting Unit operations hereunder shall be paid, apportioned among and borne by the Working Interest Owners in accordance with the Unit Operating Agreement. Such Unit Operating Agreement shall also provide the manner in which the Working Interest Owners shall be entitled to receive their respective proportionate and allocated shares of the benefits accruing hereto in conformity with their underlying operating agreements, leases or other independent contracts and such other rights and obligations as between Unit Operator and the Working Interest Owners as may be agreed upon by the Unit Operator and the Working Interest Owners; however, no such Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this Unit Agreement or to relieve the Unit Operator of any right or obligation established under this Agreement, and in case of any inconsistency or conflict between this Agreement and the Unit Operating Agreement, this Agreement shall prevail. Two true copies of any Unit Operating Agreement executed pursuant to this Section shall be filed with the Commissioner and three true copies thereof shall be filed with the Supervisor, prior to approval of this Agreement.

SECTION 10. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the Unitized Substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Acceptable evidence of title to said rights shall be deposited with said Unit Operator, and together with this Agreement, shall constitute and define the rights, privileges and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this Agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

SECTION 11. PLAN OF OPERATIONS. It is recognized and agreed by the parties hereto that all of the land subject to this Agreement is reasonably proved to be productive of Unitized Substances in paying quantities and that the object and

purpose of this Agreement is to formulate and put into effect a secondary recovery **project** in order to effect the greatest recovery of Unitized Substances, prevent **waste** and conserve natural resources. The parties hereto agree that the Unit Operator may, subject to the consent and approval of a plan of operation by the Working Interest Owners, the Supervisor, and the Commissioner, inject into the Unitized Formation, through any well or wells completed therein, brine, water, air, gas, oil and any one or more other substances whether produced from the Unit Area or not, and that the location of input wells and the rates of injection therein and the rate of production shall be governed by standards of good geologic and petroleum engineering practices and conservation methods. After commencement of secondary operations, Unit Operator shall furnish the Commissioner and the Supervisor monthly, injection and production reports for each well in the Unit. The Working Interest Owners, the Supervisor, and the Commissioner, shall be furnished periodical reports on the progress of the plan of operation and any revisions or changes thereto; provided, however, that any major revisions of the plan of operation involving a basic deviation from the initial plan of operation shall be subject to the consent and approval of the Working Interest Owners, the Supervisor and the Commissioner.

The initial plan of operation shall be filed with the Supervisor and the Commissioner concurrently with the filing of this Unit Agreement for final approval. Said initial plan of operation and all revisions thereof shall be as complete and adequate as the Supervisor and the Commissioner may determine to be necessary for timely operation consistent herewith. Reasonable diligence shall be exercised in complying with the obligations of the approved plan of operation.

Notwithstanding anything to the contrary herein contained, the Unit Operator shall commence secondary recovery operations on the Unit Area within six (6) months after the effective date of this Agreement, or any extension hereof approved by the Commissioner and the Supervisor. After such operations are commenced, Unit Operator shall carry on such operations as would a reasonably prudent operator under the same or similar circumstances.

SECTION 12. TRACT PARTICIPATION. In Exhibit "C" attached hereto, there are listed and numbered the various tracts within the Unit Area and set forth opposite each tract is a figure which represents the Tract Participation allocated to each tract in the Unit Area in Phase I and Phase II calculated on one

hundred per cent (100%) commitment. The Tract Participation of each tract was determined as follows

PHASE I:

$$\begin{aligned} & \text{Percentage Participation} \\ & \text{of each Tract} \quad + \frac{1}{2} \times \frac{\text{Tract Current Rate of Production} \\ & \text{Between April 1, 1963 \& October 1,} \\ & \text{1963}}{\text{Total Unit Current Rate of Produc-} \times 100 \\ & \text{tion Between April 1, 1963 \& October} \\ & \text{1, 1963}} \\ & \text{-Plus-} \\ & \frac{1}{2} \times \frac{\text{Tract Remaining Primary Reserves} \\ & \text{as of July 1, 1963}}{\text{Total Unit Remaining Primary Re-} \times 100 \\ & \text{serves as of July 1, 1963}} \end{aligned}$$

PHASE II:

$$\begin{aligned} & \text{Percentage Participation} \\ & \text{of each Tract} \quad : \frac{3}{4} \times \frac{\text{Tract Ultimate Primary Recovery}}{\text{Total Unit Ultimate Primary Re-} \times 100 \\ & \text{covery}} \\ & \text{-Plus-} \\ & \frac{1}{8} \times \frac{\text{Tract Productive Surface Acres}}{\text{Total Unit Productive Surface} \times 100 \\ & \text{Acres}} \\ & \text{-Plus-} \\ & \frac{1}{8} \times \frac{\text{Tract Usable Wells}}{\text{Total Unit Usable Wells}} \times 100 \end{aligned}$$

However, if the Unit Agreement is approved with less than one hundred percent (100%) commitment, said participation percentage shall be revised pursuant to Section 13, (Tracts Qualified for Participation) to fit the commitment status as of the effective date hereof, and thereafter, as needed pursuant to Section 14 (Allocation of Unitized Substances).

SECTION 13. TRACTS QUALIFIED FOR PARTICIPATION. On and after the effective date hereof the tracts within the Unit Area which shall be entitled to participation in the production of Unitized Substances therefrom shall be those tracts within the Unit Area and more particularly described in said Exhibit "B" that are qualified as follows:

(a) Each and all of those tracts to which Working Interest Owners owning 100% of the Working Interest in said tract and Royalty Owners owning 100% of the Royalty Interest in said tract have subscribed, ratified or consented to this Agreement; and,

(b) Each and all of those tracts to which Working Interest Owners owning not less than 95% of the Working Interest therein and Royalty Owners owning not less than 75% of the Royalty Interest therein have executed this Agreement, and in which the Working Interest Owners in said tract who have executed this Agreement have agreed to indemnify and hold harmless all other parties hereto, in a manner satisfactory to 85% of the Working Interest Owners qualified under (a), against any and all claims and demands that may be made by the nonjoining Working Interest Owners or Royalty Owners, or both, on account of the commitment and joinder of such tract to the Unit Agreement, and operation thereof under such conditions on

fied under (a), against any and all claims and demands that may be made by the nonjoining Working Interest Owners or Royalty Owners, or both, on account of the commitment and joinder of such tract to the Unit Agreement, and operation thereof under such conditions on the basis herein provided, and to which 85% of the Working Interest Owners qualified under (a), exclusive of the Working Interest Owner submitting such tract, have approved the commitment of such tract to this Unit Agreement.

If, on the effective date of this Agreement, there is any tract or tracts which have not been effectively committed to or made subject to this Agreement by qualifying as above provided, then such tract or tracts shall not be entitled to participate hereunder. Unit Operator shall, when submitting this Agreement for final approval by the Commissioner and the Director, or as soon thereafter as practicable, file a schedule of those tracts which have been committed and made subject to this Agreement and are entitled to participate in Unitized Substances. Said schedule shall set forth opposite each such committed tract the lease number or assignment number, the owner of record of the lease. The Tract Participation of such tract shall be computed according to the participation formula set out in Section 12 (Tract Participation) above. This schedule of participation shall be a part of Exhibit "C" and upon approval thereof by the Commissioner and the Supervisor or the Director shall become a part of this Agreement and shall govern the allocation of production of Unitized Substances until a new schedule is so approved.

SECTION 14. ALLOCATION OF UNITIZED SUBSTANCES. All Unitized Substances produced and saved (less, save and except any part of such Unitized Substances used in conformity with good operating practices on unitized land for drilling, operating, camp, and other production or development purposes and for pressure maintenance or unavoidable loss) shall be apportioned among and allocated to the committed tracts within the Unit Area in accordance with the respective tract participation effective hereunder during the respective periods such Unitized Substances were produced, as set forth in the schedule of participation in Exhibit "C". The amount of Unitized Substances so allocated to each tract, and only that amount (regardless of whether it be more or less than the amount of the actual production of Unitized Substances from the well or wells, if any, on such tract) shall, for all intents, uses and purposes, be deemed to have been produced from such tract.

The Unitized Substances allocated to each tract shall be distributed among,

or accounted for in the same manner as if the same had been so accounted for.

Agreement entitled to enter in the production from such tract in the same manner as the same proportions, and upon the same conditions, as if such party could have participated and shared in the production from such tract or in the proceeds therefrom, had this Agreement not been entered into and with full legal force and effect.

No tract committed to this Agreement and qualified for participation as above provided shall be subsequently excluded from participation hereunder on account of depletion of Unitized Substances, and nothing herein contained shall be construed as requiring any retroactive adjustment for production obtained prior to the effective date of the joinder of any tract.

If the Working Interest and the Royalty Interest in any tract are divided with respect to separate parcels or portions of such tract and owned severally by different persons, the Tract Participation assigned to such tract shall, in the absence of a recordable instrument executed by all owners and furnished to Unit Operator fixing the divisions of ownership, be divided among such parcels or portions in proportion to the number of surface acres in each.

The Unitized Substances allocated to each tract shall be delivered in kind to the respective Working Interest Owners and parties entitled thereto by virtue of the ownership of oil and gas rights therein. Each Working Interest Owner and the parties entitled thereto shall have the continuing right to receive such production in kind at a convenient point within the Unit Area and to sell or dispose of the same as it sees fit. Each such party shall have the right to construct, maintain and operate all necessary facilities for that purpose on unitized land, provided the same are so constructed, maintained and operated as not to interfere with operations carried on pursuant hereto. Subject to Section 15 (Royalty Settlement) hereof, any extra expenditure incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the party receiving the same in kind. In the event any party hereto shall fail to take or otherwise adequately dispose of its proportionate share of the production from the Unit Area currently as and when produced, then so long as such conditions continue, Unit Operator, for the account and at the expense of such party and in order to avoid curtailing the operations of the Unit Area, may sell or otherwise dispose of such production to itself or others on a day-to-day basis at not less

the prevailing market price in the area for like production, and the account each party shall be charged therewith as having received such production. The proceeds, if any, of the Unitized Substances so disposed of by Unit Operator shall be paid to the party entitled thereto.

Any party receiving in kind or separately disposing of all or any part of the Unitized Substances allocated to any tract, or receiving the proceeds therefrom if the same is sold or purchased by Unit Operator, shall be responsible for the payment of all Royalty on the lease or leases and tracts contributed by it and received into the Unit, and each such party shall hold each other party here- to harmless against all claims, demands and causes of action for such Royalty on the lease or leases and tracts contributed by it and received into the unitized land.

If, after the effective date of this Agreement, there is any tract or tracts that are subsequently committed hereto, as provided in Section 4 (Expansion) hereof, or any tract or tracts within the Unit Area not committed hereto as of the effective date hereof but which are subsequently committed hereto under the provisions of Section 30 (Nonjoinder and Subsequent Joinder), or if any tract is excluded from the Unit Area as provided for in Section 29 (Loss of Title), the schedule of participation as shown in the current Exhibit "C" shall be revised by the Unit Operator and distributed to the Working Interest Owners, the Commissioner, the Supervisor, and the Director to show the new percentage participation of all the then effectively committed tracts; and the revised schedule, upon approval by the Commissioner and the Supervisor or the Director, shall govern all the allocation of production from and after the effective date thereof until the effective date of a new schedule so approved. In any such revision pursuant to Section 4 (Expansion) or after six months from the effective date of this Unit Agreement pursuant to Section 30 (Nonjoinder and Subsequent Joinder) the Tract Participations of all tracts participating prior to such revision shall remain in the same ratio one to the other. In any such revision pursuant to Section 29 (Loss of Title) or within six months from the effective date of this Unit Agreement pursuant to Section 30 (Nonjoinder and Subsequent Joinder) all Tract Participations shall be computed according to the participation formula.

SECTION 15. ROYALTY SETTLEMENT. The State of New Mexico and the United States of America and all Royalty Owners who, under existing contracts, are entitled to take in kind a share of the Unitized Substances produced from any tract unitized hereunder, shall continue to be entitled to such right to take in kind their share of the Unitized Substances allocated to such tract, and Unit Operator shall make deliveries of such Royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for Royalty Interest not taken in kind shall be made by Working Interest Owners responsible therefor under existing contracts, laws and regulations, on or before the last day of each month for Unitized Substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the Lessees of any land from their respective lease obligations for the payment of any Royalty due under their leases, except that such Royalty shall be computed in accordance with the terms of this Unit Agreement.

If gas obtained from lands not subject to this Agreement is introduced into the Unitized Formation, for use in repressuring, stimulation of production, or increasing ultimate recovery in conformity with a plan approved pursuant to Section 11 (Plan of Operations), a like amount of gas, less appropriate deductions for loss from any cause, may be withdrawn from the Unitized Formation, Royalty free as to dry gas but not as to the products extracted therefrom; provided such withdrawal shall be pursuant to such conditions and formulas as may be prescribed or approved by the Supervisor and the Commissioner; and provided further that such right of withdrawal shall terminate as of the effective date of termination of the Unit Agreement.

All Royalty due the State of New Mexico and the United States of America and the other Royalty Owners hereunder shall be computed and paid on the basis of all Unitized Substances allocated to the respective tract or tracts committed hereto, in lieu of actual production from such tract or tracts.

Royalty due the United States shall be computed as provided in the operating regulations and paid in value or delivered in kind as to all Unitized Substances on the basis of the amounts thereof allocated to unitized Federal land as provided herein at the rates specified in the respective Federal leases, or at such lower rate or rates as may be authorized by law or regulations; provided, that

for leases on which the royalty rate depends on the daily average production per well, said average production shall be determined in accordance with the operating regulations as though the Unitized Land were a single consolidated lease.

Each Royalty Owner (other than the State of New Mexico and the United States of America) that executes this Agreement represents and warrants that it is the owner of a Royalty Interest in a tract or tracts within the Unit Area as its interest appears in Exhibit "B" attached hereto. If any Royalty Interest in a tract or tracts should be lost by title failure or otherwise in whole or in part, during the term of this Agreement, then the Royalty Interest of the party representing himself to be the owner thereof shall be reduced proportionately and the interest of all parties shall be adjusted accordingly.

SECTION 16. RENTAL SETTLEMENT. Rentals or minimum royalties due on leases committed hereto shall be paid by Working Interest Owners responsible therefor under existing contracts, laws and regulations, provided that nothing herein contained shall operate to relieve the Lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty in lieu thereof, due under their leases. Rental for lands of the State of New Mexico subject to this Agreement shall be paid at the rate specified in the respective leases from the State of New Mexico. Rental or minimum royalty for lands of the United States of America subject to this Agreement shall be paid at the rate specified in the respective leases from the United States of America, unless rental or minimum royalty is waived, suspended, or reduced by law or by approval of the Secretary or his duly authorized representative.

SECTION 17. CONSERVATION. Operations hereunder and production of Unitized Substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to Federal and State laws and regulations.

SECTION 18. DRAINAGE. The Unit Operator shall take appropriate and adequate measures to prevent drainage of Unitized Substances from unitized land by wells on land not subject to this Agreement.

SECTION 19. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas on land committed to this Agreement are hereby expressly modified and amended to the extent neces-

sary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect, and the parties hereto hereby consent that the Secretary and the Commissioner, respectively, shall and by their approval hereof, or by the approval hereof by their duly authorized representatives, do hereby establish, alter, change or revoke the drilling, producing, rental, minimum royalty and royalty requirements of Federal and State leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement.

Without limiting the generality of the foregoing, all leases, subleases and contracts are particularly modified in accordance with the following:

(a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every part or separately owned tract subject to this Agreement, regardless of whether there is any development of any particular part or tract of the Unit Area, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling, producing or secondary recovery operations performed hereunder upon any tract of unitized lands shall be accepted and deemed to be performed upon and for the benefit of each and every tract of unitized land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on land therein embraced.

(c) Suspension of drilling or producing operations on all unitized lands pursuant to direction or consent of the Commissioner and the Supervisor or their duly authorized representatives, shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every tract of unitized lands.

(d) Each lease, sublease, or contract relating to the exploration, drilling, development or operation for oil and gas which by its terms might expire prior to the termination of this Agreement, is hereby extended beyond any such term so provided therein, so that it shall be continued in full force and effect for and during the term of this Agreement.

(e) Termination of this Agreement shall not affect any lease which, pursuant to the terms thereof or any applicable laws, shall continue in force and effect thereafter.

(f) Any lease embracing lands of the State of New Mexico, which is made subject to this Agreement, shall continue in force beyond the term provided therein as to the lands committed hereto until the termination hereof.

(g) Any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto, shall be segregated as to that portion committed and that not committed, and the terms of such lease shall apply separately to such segregated portions commencing as of the effective date hereof. Provided, however, that notwithstanding any of the provisions of this Agreement to the contrary, such lease shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease if oil or gas is, or

has heretofore been discovered in paying quantities on some part of the lands embraced in such lease committed to this Agreement or, so long as a portion of the Unitized Substances produced from the Unit Area is, under the terms of this Agreement, allocated to the portion of the lands covered by such lease committed to this Agreement, or, at any time during the term hereof, as to any lease that is then valid and subsisting and upon which the Lessee or the Unit Operator is then engaged in bona fide drilling, reworking, or secondary recovery operations on any part of the lands embraced in such lease, then the same as to all lands embraced therein shall remain in full force and effect so long as such operations are diligently prosecuted, and if they result in the production of oil or gas, said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as oil or gas in paying quantities is being produced from any portion of said lands.

(h) The segregation of any Federal lease committed to this Agreement is governed by the following provision in the fourth paragraph of Sec. 17(j) of said Act of February 25, 1920, as amended by the Act of September 2, 1960 (74 Stat. 781-784): "Any (Federal) lease heretofore or hereafter committed to any such plan (unit) embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization; provided, however, that any such lease as to the non-unitized portion shall continue in full force and effect for the term thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

SECTION 20. MATHEMATICAL ERRORS. It is hereby agreed by all parties to this Agreement that Unit Operator is empowered to correct any mathematical errors which might exist in the pertinent exhibits to this Agreement upon approval of the Commissioner and the Supervisor.

SECTION 21. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any Working Interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument of transfer; and no assignment or transfer of any Royalty Interest subject hereto shall be binding upon the Working Interest Owner responsible therefor until the first day of the calendar month after said Working Interest Owner is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument of transfer.

SECTION 22. EFFECTIVE DATE AND TERM. This Agreement shall become binding upon each party who executes or ratifies it as of the date of execution or ratification by such party and shall become effective as of 12.00 A.M. of the first day of the month next following:

(a) The execution or ratification of this Agreement and the Unit Operating Agreement by Working Interest Owners owning a combined unit participation of at least ninety five per cent (95%) and the execution or ratification of this Agreement by Royalty Owners owning a combined interest of at least seventy five per cent (75%) of the Royalty Interest in said Unit Area; and,

(b) The approval of this Agreement by the Commissioner, the Secretary or his duly authorized representatives, and the Commission; and,

(c) The filing of at least one counterpart of this Agreement for record in the office of the County Clerk of Lea County, New Mexico, by the Unit Operator, and provided, further, that if (a), (b) and (c) above are not accomplished on or before August 1, 1964, this agreement shall ipso facto expire on said date (hereinafter called "expiration date") and thereafter be of no further force or effect, unless prior thereto this Agreement has been executed or ratified by Working Interest Owners owning a combined Unit Participation of at least ninety per cent (90%) committed to this Agreement have decided to extend said expiration date for a period not to exceed six (6) months (hereinafter called "extended expiration date"). If said expiration date is so extended and (a), (b), and (c) are not accomplished on or before said extended expiration date, this Agreement shall ipso facto expire on said extended expiration date and thereafter be of no further force or effect. For the purpose of this Section, ownership shall be computed on the basis of Unit Participation as determined from Exhibit "C" attached to the Unit Operating Agreement.

The Unit Operator shall, within thirty (30) days after the effective date of this Agreement, file for record in the offices where a counterpart of this Agreement is recorded, a certificate to the effect that this Agreement has become effective according to its terms and stating further the effective date.

The term of this Agreement shall be for and during the term that Unitized Substances are produced in paying quantities from the Unit Area and as long thereafter as drilling, reworking or other operations (including secondary recovery operations) are prosecuted thereon without cessation of more than ninety (90) consecutive days, unless sooner terminated by Working Interest Owners in the manner hereinafter provided.

This Agreement may be terminated with the approval of the Commissioner and the Director by Working Interest Owners owning ninety per cent (90%) of Unit Participation whenever such Working Interest Owners determine that Unit Operations are no longer profitable, feasible, or in the interest of conservation. Notice

of any such termination shall be given by Unit Operator to all parties hereto.

Upon termination of this Agreement, the further development and operations of the Unit Area as a Unit shall be abandoned, Unit operations shall cease, and thereafter the parties hereto shall be governed by the terms and provisions of the leases and contracts affecting the separate tracts.

If not otherwise covered by the leases unitized under this Agreement, Royalty Owners hereby grant Working Interest Owners a period of six (6) months after termination of this Agreement in which to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit operations.

SECTION 23. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. All production and the disposal thereof shall be in conformity with allocations and quotas made or fixed by any duly authorized person or regulatory body under any Federal or State statute. The Director is hereby vested with authority to alter or modify from time to time, in his discretion, the rate of prospecting and development and within the limits made or fixed by the Commission to alter or modify the quantity and rate of production under this Agreement, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification; provided, further, that no such alteration or modification shall be effective as to any land of the State of New Mexico as to the rate of prospecting and development in the absence of the specific written approval thereof by the Commissioner and as to any lands of the State of New Mexico or privately owned lands subject to this Agreement as to the quantity and rate of production in the absence of specific written approval thereof by the Commission.

Powers in this Section vested in the Director shall only be exercised after notice to the Unit Operator and opportunity for hearing to be held not less than fifteen days from notice.

SECTION 24. NONDISCRIMINATION. In connection with the performance of work under this Agreement, the Operator agrees to comply with all of the provisions of Section 301(1) to (7) inclusive, of Executive Order 10925 (26 F.R. 1977), which are hereby incorporated by reference in this Agreement.

SECTION 25. APPEARANCES. Unit Operator shall have the right to appear for or on behalf of any and all interests affected hereby before the Commissioner,

the Department, and the Commission, and to appeal from any order issued under the rules and regulations of the Commissioner, the Department, or the Commission, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Commissioner, the Department, or the Commission, or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his or its own expense to be heard in any such proceeding.

SECTION 26. NOTICES. All notices, demands, objections or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if made in writing and personally delivered to the party or parties or sent by postpaid certified mail, addressed to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party or parties may have furnished in writing to the party sending the notice, demand or statement.

SECTION 27. NO WAIVER OF CERTAIN RIGHTS. Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the State wherein said unitized lands are located, or rules or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive.

SECTION 28. UNAVOIDABLE DELAY. All obligations under this Agreement requiring the Unit Operator to commence or continue secondary recovery operations or to operate on or produce Unitized Substances from any of the lands covered by this Agreement shall be suspended while, but only so long as Unit Operator, despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or municipal law or agency, unavoidable accident, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

SECTION 29. LOSS OF TITLE. In the event title to any tract of unitized land shall fail so as to render the tract inoperable under this Agreement and the true owner cannot be induced to join this Unit Agreement, such tract shall

be automatically regarded as not committed hereto and there shall be such re-adjustment of future costs and benefits as may be required on account of the loss of such title. Thereafter, Unit Operator shall revise Exhibit "A", "B" and "C" so as to indicate thereon only those tracts which then qualify for inclusion within the Unit Area. Each such revised Exhibit shall be effective at 7:00 A.M. on the first day of the month next following the month in which the failure of title is finally determined. In the event of a dispute as to title as to any Royalty, Working Interest or other interest subject thereto, payment or delivery on account thereof may be withheld without liability or interest until the dispute is finally settled; provided, that as to State or Federal land or leases, no payments of funds due the State of New Mexico or the United States of America shall be withheld, but such funds shall be deposited as directed by the Commissioner or the Supervisor (as the case may be), to be held as unearned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

Unit Operator as such is relieved from any responsibility for any defect or failure of any title hereunder.

SECTION 30. NONJOINDER AND SUBSEQUENT JOINDER. If the owner of any substantial interest in a tract within the Unit Area fails or refuses to subscribe, ratify, or consent in writing to this Agreement, the Working Interest Owner in that tract who has executed or ratified this Agreement may withdraw said tract from this Agreement by written notice to the Director, the Commissioner, and the Unit Operator prior to the effective date of this Agreement. Joinder by any Royalty Owner, at any time, must be accompanied by appropriate joinder of the corresponding Working Interest Owner in order for the interest of such Royalty Owner to be regarded as effectively committed. Joinder to the Unit Agreement by a Working Interest Owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement in order for such interest to be regarded as effectively committed to this Unit Agreement.

Any oil or gas interest in the Queen sand not committed hereto prior to submission of this Agreement to the Commissioner and the Director for final approval may thereafter be committed hereto upon compliance with the applicable provisions of this Section and of Section 13 (Tracts Qualified for Unit Participation) hereof, at any time up to the effective date hereof and for a period to

and including six (6) months thereafter on the same basis of participation as provided in said Section 13 by the owner or owners thereof subscribing, ratifying, or consenting in writing to this Agreement and if the interest is a Working Interest by the owner of such interest subscribing also to the Unit Operating Agreement.

It is understood and agreed, however, that here and after six (6) months from the effective date hereof the right of subsequent tender as provided in this Section shall be subject to such requirements or approvals and on such basis as may be agreed upon by ninety per cent (90%) of the Working Interest Owners. Such tender by a proposed Working Interest Owner must be evidenced by his execution or ratification of this Agreement and the Unit Operating Agreement. Such tender by a proposed Royalty Owner must be evidenced by his execution, ratification or consent of this Agreement and must be consented to in writing by the Working Interest Owner responsible for the payment of any benefits that may accrue hereunder in behalf of such proposed Royalty Owner. Except as may be otherwise herein provided, subsequent tender to this Agreement shall be effective at 7:00 A.M. as of the first day of the month following the filing with the Commissioner and the Supervisor of duly executed counterparts of any and all documents necessary to establish effective commitment of any tract or interest to this Agreement unless objection to such tender by the Commissioner or the Director is duly made within sixty (60) days after such filing.

SECTION 31. COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, and may be ratified or consented to by separate instrument in writing specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above described Unit Area.

SECTION 32. TAXES. Each party hereto shall for its own account render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the unitized land; provided, however, that if it is required or if it be determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account

of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes shall be reimbursed therefor by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated shares of said Unitized Substances. No such taxes shall be charged to the United States or to the State of New Mexico, nor to any Lessor who has a contract with a Lessee which requires his Lessee to pay such taxes.

SECTION 33. CONFLICT OF SUPERVISION. Neither the Unit Operator nor the Working Interest Owners, nor any of them, shall be subject to any forfeiture, termination or expiration of any rights hereunder or under any leases or contracts subject hereto, or to any penalty or liability on account of delay or failure in whole or in part to comply with any applicable provisions thereof to the extent that the said Unit Operator or the Working Interest Owners, or any of them, are hindered, delayed or prevented from complying therewith by reason of failure of the Unit Operator to obtain, in the exercise of due diligence, the concurrence of proper representatives of the United States and proper representatives of the State of New Mexico in and about any matters or things concerning which it is required herein that such concurrence be obtained. The parties hereto, including the Commission, agree that all powers and authority vested in the Commission in and by any provisions of this Agreement are vested in the Commission and shall be exercised by it pursuant to the provisions of the laws of the State of New Mexico and subject in any case to appeal or judicial review as may now or hereafter be provided by the laws of the State of New Mexico.

SECTION 34. LIMITATION OF APPROVALS. Notwithstanding anything herein contained to the contrary, if no Federal lands are committed to this Agreement, then no consents or approvals provided herein shall be required of the Department, the Secretary, the Director, or the Supervisor, and it shall not be necessary to file any instrument hereunder with said officers or agencies unless and until Federal lands are so committed to this Agreement; likewise, if no State lands are committed to this Agreement, then no consents or approvals provided herein shall be required of the Commissioner, and it shall not be necessary to file any instrument hereunder with said officer unless and until State lands are so committed to this Agreement; likewise, if no fee lands are committed to this Agreement, then no consents or approvals provided herein shall be required of the Commission, and it shall not be necessary to file any instrument hereunder with said office unless

and until fee lands are so committed to this Agreement.

SECTION 35. BORDER AGREEMENTS. Subject to the approval of the Supervisor and the Commissioner, the Unit Operator, with concurrence of the Working Interest Owners of sixty five percent (65%) of the Unit Participation may enter into a border-protection agreement or agreements with the working interest owners of adjacent lands along the exterior boundary of the Unit Area with respect to the operations in the border area for the maximum ultimate recovery, conservation purposes and proper protection of the parties and interests.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and have set opposite their respective names the date of execution.

AMBASSADOR OIL CORPORATION

ATTEST:

Secretary

By _____
Vice President

THE STATE OF TEXAS)

COUNTY OF TARRANT)

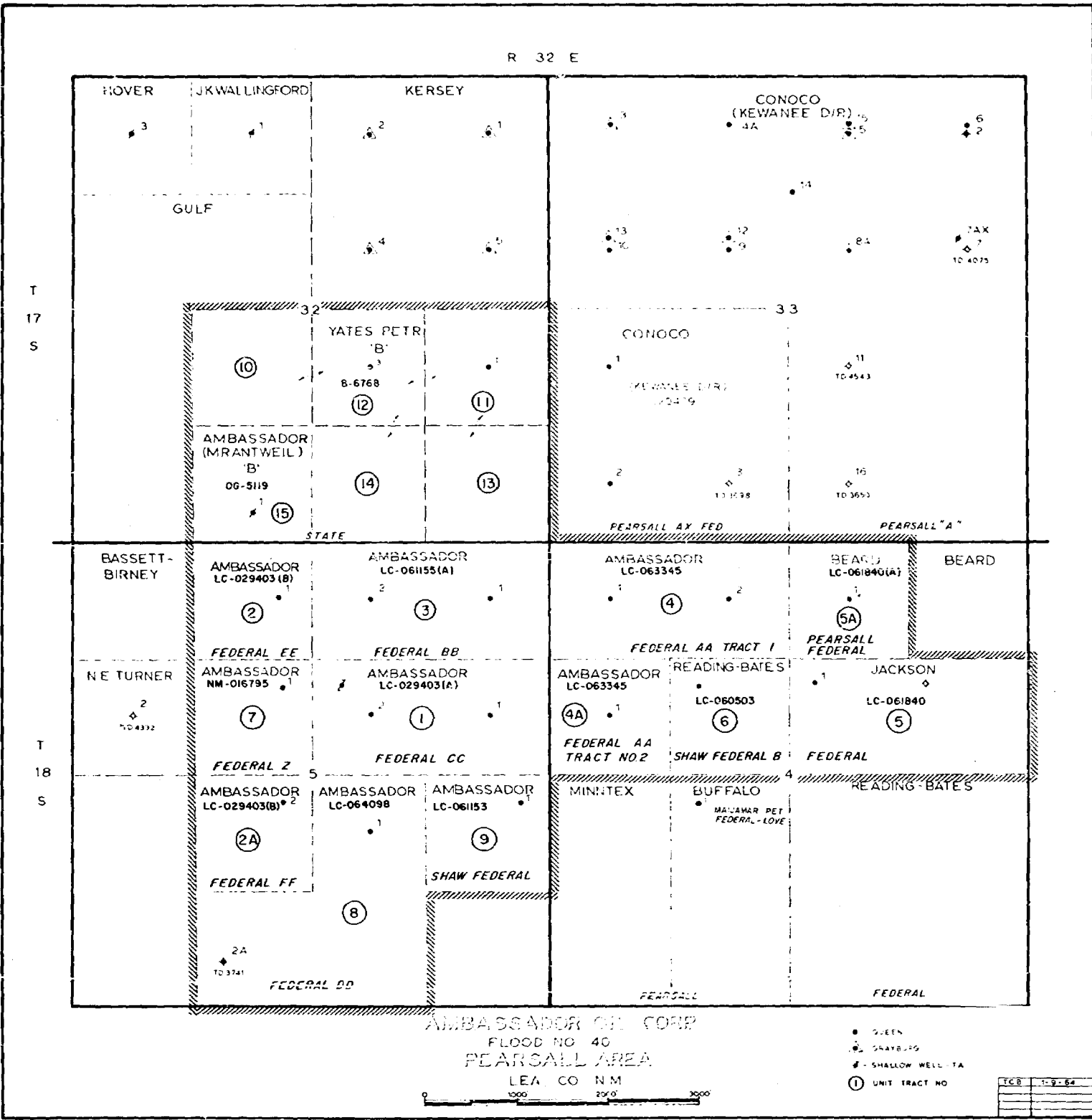
BEFORE ME, the undersigned, _____ a Notary Public
in and for said County and State, on this _____ day of _____, 1964, per-
sonally appeared B. J. KELLENBERGER, to me known to be the identical person who
subscribed the name of the maker to the within and foregoing instrument as its
Vice President, and acknowledged to me that he executed the same as his free and
voluntary act and deed, and as the free and voluntary act and deed of such cor-
poration, for the uses and purposes therein set forth

IN TESTIMONY WHEREOF I have hereunto set my hand and official seal the day
and year last above written

My Commission Expires:
June 1, 1965

Notary Public, Tarrant County, Texas

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AMBASSADOR OIL CORP
 FLOOD NO 40
 PEARSALL AREA
 LEA CO N.M.

- QUEEN
- SHALYBURG
- ◇ SHALLOW WELL - TA
- ① UNIT TRACT NO

TCB	1-2-64

EXHIBIT "B"
 PEARSALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
<u>Federal Lands</u>							
T18S-R32E 3	Section 5: S/2 NE/4	80	LC-029403(A) 12-1-59	12 1/2% -25%	Roy H. Smith & Hugh L. Johnson Jr., d/b/a Roy H. Smith Drilling Co.	M. E. Baish - 1 1/2% Martin Yates III - 1% Irene E. Walker - 2 1/2% William E. Walker - 1 1/2% Elaine M. Walker - 1 1/2% \$110,000.00 PP out of 25% of the WI to Roy H. Smith.	Ambassador Oil Corporation - 100% (to 5,000 ft.)
T18S-R32E 3A	Section 5: Lot 3 (NE/4 NW/4)	40	LC-029403(B) 11-1-61	12 1/2%	Hugh L. Johnson Jr. & Roy H. Smith	Subject to the \$110,000.00 and \$25,000.00 PP described under Tract 3 above.	Ambassador Oil Corporation - 100% (to 5,000 ft.)
T18S-R32E 3B	Section 5: NE/4 SW/4	40	LC-029403(B) 11-1-61	12 1/2%	Hugh L. Johnson Jr. & Roy H. Smith	Subject to the \$110,000.00 and \$25,000.00 PP described under Tract 3 above.	Ambassador Oil Corporation - 100% (to 5,000 ft.)

EXHIBIT "B" - (Cont)
 PEARSCALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT		WORKING INTEREST OWNER AND AMOUNT	
T18S-R32E 4	Section 5: Lots 1 & 2 (N/2 NE/4)	80	LC-061155(A) 12-1-59	12 1/2% -25%	Frank Brock & R. T. Brock d/b/a Brock Drilling Company	M. E. Balsh - 1 1/2%		Ambassador Oil Corporation - 100%	
						Martin Yates III - 1%			
						Irene E. Walker - 2 1/2%			
						Wm. E. Walker - 1 1/2%			
						Elaine M. Walker - 1 1/2%			
						\$66,000.00 PP out of 25% of the WI to:			
						1/2 - Frank Brock			
						1/2 - R. T. Brock			
						After payout of above PP a \$14,000.00 PP shall commence out of 12 1/2% of the WI to:			
						1/2 - Frank Brock			
						1/2 - R. T. Brock			
T18S-R32E 5	Section 4: Lots 3 & 4 (N/2 NW/4)	80	LC-063345 11-1-60	12 1/2% 33-1/3%	Frank Brock R. T. Brock Alfred Hunter Utter, Executor of Estate of Alpha McAtee, Deceased	Brock Drilling Co. 1/16 of WI Security-First Nat. Bank of Los Angeles, Trustee 1/16 of WI \$99,000.00 PP out of 25% of WI to:		Ambassador Oil Corporation - 100% (To base of Queen Sand)	
						1/4 - Frank Brock			
						1/4 - R. T. Brock			
						1/2 - Alfred H. Utter			
						After payout of above PP, a \$21,000.00 PP shall commence out of 12 1/2% of the WI to:			
						1/4 - Frank Brock			
						1/4 - R. T. Brock			
						1/2 - Alfred Hunter Utter			

EXHIBIT "B" - (Cont.)
 PARSALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
T185-R32E 4A	Section 4, SW/4 NW/4	40	IC-063345 11-1-60	Schedule "D"	Frank Brock R. T. Brock Alfred Hunter Utter, Executor of Estate of Alpha McAtee, Deceased	Subject to the same \$99,000.00 and \$21,000.00 PP as described under Tract 5.	Ambassador Oil Corporation (To base of Queen Sand)
T185-R32E 5A	Section 4, NW/4 NE/4	40	IC-061840(A) 11-1-60	Schedule "D"	Mintex Oil Company	Buffalo Petroleum Corporation 5%	Mintex Oil 50% Beard Oil Co. 25% F.W. Holloway, Jr. - 13 3/4% E.R. Monson 5% K.V. Dahl 2-1/12% Conce Iee Ballard Anderson 4-1/6%
T185-R12E	Section 4, S/2 NE/4	80	IC-061840 11-1-60	Schedule "C"	B. M. Jackson	Buffalo Petroleum Corporation 5% South Central Enterprises 5%	B.M. Jackson 100%
T185-R12E 6	Section 4, SE/4 NW/4	40	IC-060503 11-1-60	Schedule "D"	Virginia Woods Shaw	Virginia Woods Shaw 5%	Reading & Bates, Inc. 100%

EXHIBIT "B" - (Cont)
 PEARSALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	EASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
T1&S-R32E 7	Section 5; SE/4 NW/4	40	NW-016795 2-1-55	Schedule "B"	Ambassador Oil Corporation	None	Ambassador Oil Corp. 100% (to 5,000 ft.)
T1&S-R32E 8	Section 5; SE/4 SW/4 & W/2 SE/4	120	LC 064098 12-1-59	Schedule "C"	C. N. Ochiltree	M. E. Faish 1 1/2% Martin Yates III 1% Irene E. Walker 2 1/2% Wm. E. Walker 1-1/4% Elaine M Walker 1-1/4%	Ambassador Oil Corp. 100% (to 5,000 ft.)
T1&S-R32E 9	Section 5; NE/4 SE/4	40	LC-041153 12-1-59	Schedule "C"	Virginia Woods Shaw	M. E. Faish 1 1/2% Martin Yates III 1% Irene E. Walker 2 1/2% Elaine M. Walker 1-1/4% Wm. E. Walker 1-1/4% Virginia Woods Shaw 5% (to 5,000 ft.)	Ambassador Oil Corp. 100% (to 5,000 ft.)

Subject to the \$110,000.00 and \$25,000.00 PP described under Tract 3 above.

EXHIBIT "B" - (Cont)
 PEARSCALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & LEASE DATE	BASIC ROYALTY	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND AMOUNT	WORKING INTEREST OWNER AND AMOUNT
<u>State Lands</u>							
T17S-R32E 10	Section 32: NE/4 SW/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	Ada M. Trostel Yates Bros. 3% 4.1666%	S.P. Yates 24% Dixon & Yates 28.1667% Yates Petroleum Corporation 28.1667%
T17S-R32E 11	Section 32: NE/4 SE/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	Laura G. Brown Yates Bros. 3.125% 4.1667%	S.P. Yates 28.125% Dixon & Yates 28.125% Yates Petroleum Corporation 23.9583%
T17S-R32E 12	Section 32: NW/4 SE/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	Claude Johnston Yates Bros. 3% 4.1666%	S.P. Yates 28.1667% Dixon & Yates 28.1667% Yates Petroleum Corporation 24%
T17S-R32E 13	Section 32: SE/4 SE/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	C.H. Malort Yates Bros. 3% 4.1666%	S.P. Yates 28.1667% Dixon & Yates 28.1667% Yates Petroleum Corporation 24%
T17S-R32E 14	Section 32: SW/4 SE/4	40	B-6768	12 $\frac{1}{2}$ %	Yates Petroleum Corp.	Selina Reese Yates Bros. 3% 4.1666%	S.P. Yates 28.1667% Dixon & Yates 28.1667% Yates Petroleum Corporation 24%

EXHIBIT "B" - (Cont.)
 PEARSAULT QUEEN SAND UNIT
 LHA COUNTY, NEW MEXICO

<u>TRACT NO.</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>SERIAL NO. & LEASE DATE</u>	<u>BASIC ROYALTY</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY OWNER AND AMOUNT</u>	<u>WORKING INTEREST OWNER AND AMOUNT</u>
1118 B22E	Section 32, SE/4 SW/4	40	00-5119 2-12-59	12 1/2%	Gulf Oil Corporation	None	Ambassador Oil Corporation 100%

EXHIBIT "B" - (Cont)
PEARSALL QUEEN SAND UNIT
LEA COUNTY, NEW MEXICO

TOTALS

12 Federal Tracts	721.69 Acres	75.04% of Unit Area
5 State of New Mexico Tracts 240	Acres	24.96% of Unit Area
<hr/>		
	961.69 Acres	100% of Unit Area

EXHIBIT "C"
 PEARSALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

SCHEDULE OF UNIT PARTICIPATION

<u>TRACT NO.</u>	<u>DESCRIPTION</u>	<u>SERIAL NO. & LEASE DATE</u>	<u>PHASE I - PERCENT TRACT PARTICIPATION IN UNIT</u>	<u>PHASE II - PERCENT TRACT PARTICIPATION IN UNIT</u>
1	S/2 NE/4 Sec. 5 T18S R32E	LC-029403(A) 12-1-59	2.847724	13.152701
2	Lot 3 (NE/4 NW/4) Sec. 5 T18S R32E	LC-029403(B) 11-1-61	4.150530	3.165215
2A	NE/4 SW/4 Sec. 5 T18S R32E	LC-029403(B) 11-1-61	7.944053	4.083941
3	Lots 1&2 (N/2 NE/4) Sec. 5 T18S R32E	LC-061155(A) 12-1-59	0.624893	11.749836
4	Lots 3&4 (N/2 NW/4) Sec. 4 T18S R32E	LC-063345 11-1-60	8.458948	23.454551
4A	SW/4 NW/4 Sec. 4 T18S R32E	LC-063345 11-1-60	-0-	5.018021
5A	N/2 NE/4 Sec. 4 T18S R32E	LC-061840(A) 9-22-39	21.833242	6.506314
5	S/2 NE/4 Sec. 4 T18S R32E	LC-061840 11-1-60	43.182348	7.822372
6	SE/4 NW/4 Sec. 4 T18S R32E	LC-060503	7.310969	6.906015
7	SE/4 NW/4 Sec. 5 T18S R32E	NM-016795 2-1-55	0.379501	1.766453
8	SE/4 SW/4 & W/2 SE/4 Sec. 5 T18S R32E	LC-064098 12-1-59	0.796097	4.283037
9	NE/4 SE/4 Sec. 5 T18S R32E	LC-061153 12-1-59	-0-	1.318795

Rev. 9-23-63

Rev. /9/64

EXHIBIT "C" - (Cont)
 PEARSBALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

SCHEDULE OF UNIT PARTICIPATION

TRACT NO.	DESCRIPTION	SERIAL NO. & LEASE DATE	PHASE I - PERCENT TRACT PARTICIPATION IN UNIT		PHASE II - PERCENT TRACT PARTICIPATION IN UNIT	
10	SE/4 SW/4 Sec. 32 T17S R32E	E-6768	-0-		0.520833	
11	NE/4 SE/4 Sec. 32 T17S R32E	E-6768	1.261199		5.711548	
12	NW/4 SE/4 Sec. 32 T17S R32E	E-6768	0.710496		2.686547	
13	SE/4 SE/4 Sec. 32 T17S R32E	E-6768	-0-		0.520834	
14	SW/4 SE/4 Sec. 32 T17S R32E	E-6768	-0-		0.520834	
15	SE/4 SW/4 Sec. 32 T17S R32E	OC-5119 2-17-59	-0-		0.812153	

EXHIBIT "C" (Cont)
 PFARSALL QUEEN SAND UNIT
 LEA COUNTY, NEW MEXICO

SUMMARY OF
 WORKING INTEREST UNIT PARTICIPATION

	<u>TOTAL PARTICIPATION IN UNIT</u>	
	<u>PHASE I</u>	<u>PHASE II</u>
Ambassador Oil Corporation	25.201746	68.804703
Janice Lee Ballard Anderson	0.909718	0.271096
John M. Beard	5.458311	1.626579
K. V. Dahl	0.454859	0.135548
Dixon & Yates	0.691355	3.495563
F. W. Holloway, Jr.	3.002071	0.894618
B. M. Jackson	43.182348	7.822372
Minttex Oil Company	10.916621	3.253157
E. R. Monson	1.091662	0.325316
Reading & Bates, Inc.	7.810969	6.906015
S. P. Yates	0.588985	2.975470
Yates Petroleum Corporation	0.691355	3.495563
	100.000000	100.000000

UNIT AGREEMENT
PEARSALL QUEEN SAND UNIT
Lea County, New Mexico

Index Book 5
INDEX

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EXHIBIT "A" (Map of Unit Area)

EXHIBIT "B" (Schedule of Ownership)

EXHIBIT "C" (Schedule of Unit Participation)

Case file

MAIN OFFICE OCC  OFFICE OCC

1954 MAR 23 10 30 AM NEW MEX 6981

STATE ENGINEER OFFICE
SANTA FE

S. E. REYNOLDS
STATE ENGINEER

February 28, 1964

Van 3005
March 11, 1964
ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

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

Dear Mr. Porter:

Reference is made to the application of Ambassador Oil Corporation which seeks approval of the Pearsall Queen Sand Unit and Water-flood Project, which was submitted on February 11, 1964.

In view of the statement contained in the letter to me which accompanied the application "These waters will be injected through tubing and packer set immediately above the pay zone within the production casing," it appears that no threat of contamination to the fresh waters which may exist in the area will occur. Therefore, this office offers no objection to the granting of this application, provided we are furnished with an accurate description of the source of the water to be injected when the selection has been made and further provided that we are supplied with an analysis of the source water.

Very truly yours,

S. E. Reynolds
State Engineer

FEI/ma
cc-Mr. E. A. Riley
Mr. James T. Jennings
F. H. Hennighausen

By: *Frank E. Irby*
Frank E. Irby
Chief
Water Rights Div.

MARCH 11, 1964 EXAMINER HEARING

- CASE 3004: Application of Ambassador Oil Corporation for a unit agreement Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Pearsall Queen Sand Unit comprising 960 acres of State and Federal land in Townships 17 and 18 South, Range 32 East, Lea County, New Mexico.
- CASE 3005: Application of Ambassador Oil Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Pearsall (Queen) Pool, Lea County New Mexico, by the injection of water into the Queen formation through 5 wells, located in Sections 4 and 5 Township 18 South, Range 32 East.
- CASE 3006: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant in the above-styled cause, seeks authority to institute a waterflood project in the Pearsall (Queen) Pool, Lea County, New Mexico, by the injection of water into the Queen formation through one well located in Unit M of Section 33, Township 17 South, Range 32 East.
- CASE 3007: Application of Consolidated Oil & Gas, Inc. for a triple completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (conventional) of its Hoyt Well No. 2-5, located in Unit L of Section 5, Township 26 North, Range 4 West, Rio Arriba County, New Mexico, to produce gas from the Basin-Dakota and Blanco Mesaverde Gas Pools and oil from an undesignated Gallup oil pool through parallel strings of 2 1/16 inch, 1 1/2 inch, and one inch tubing, respectively.
- CASE 3008: Application of Phillips Petroleum Company for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (conventional) of its Santa Fe Well No. 87, located in Unit L of Section 31, Township 17 South, Range 35 East, Lea County, New Mexico, to produce oil from the North Vacuum-Abo, Vacuum-Wolfcamp and Vacuum-Glorieta Pools through parallel strings of 2 3/8-inch OD tubing.
- CASE 3009: Application of Cities Service Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Owen No. 1 Well located in Unit P of Section 35, Township 21 South, Range 37 East, Lea County, New Mexico, to produce oil from the Blinebry and Drinkard Oil Pools through parallel strings of 1 1/2-inch and 2 1/16-inch tubing, respectively.
- CASE 3010: Application of R. C. Davoust for the expansion of a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, as successor to Stanton Oil Company, Ltd., seeks to expand the Turkey Track Pool Waterflood Project authorized by Order No. R-1524. Said expansion would be effected by the drilling of 11 water injection wells to the Queen formation at certain unorthodox locations no nearer than 5 feet distance from any 40-acre lot line in Section 34, Township 18 South, Range 29 East, and Section 3, Township 19 South, Range 29 East, Eddy County, New Mexico.

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 11, 1964

9 A. M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner:

CASE 2988 (Continued from the February 5, 1964 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit George E. Willett and all other interested parties to appear and show cause why the SDD Hare Well No. 7, located 600 feet from the South line and 1360 feet from the East line of Section 14, Township 29 North, Range 11 West, San Juan County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.

CASE 2998 (Continued from the February 19, 1964 Examiner Hearing)

Application of Tenneco Oil Company for a gas well-water injection well, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Central Totah Unit Well No. 24 located in Unit O of Section 11, Township 28 North, Range 13 West, San Juan County, New Mexico, to produce gas from the Basin-Dakota Gas Pool through 1 1/2 inch tubing and to inject water into the Gallup formation, Totah-Gallup Oil Pool, through 2 1/16 inch tubing with separation of the zones by a packer set at 5766 feet.

CASE 3001: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit O. A. Peters and all interested parties to appear and show cause why the Peters State Well No. 1, located 860 feet from the South line and 660 feet from the East line of Section 2, Township 1 North, Range 20 East, De Baca County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.

CASE 3002: Application of Pan American Petroleum Corporation for the creation of a new gas pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Lower Paddock Gas Pool for its SMU Well No. 16, located in Unit O of Section 15, Township 24 South, Range 37 East, and the establishment of special pool rules therefor, including a provision for 320-acre spacing. Lea County, New Mexico.

CASE 2737 (Reopened): In the matter of Case No. 2737 being reopened pursuant to the provisions of Order No. R-2429-A, which order established temporary 640-acre spacing units for the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 160-acre spacing units.

CASE 3003: Application of Cabot Corporation for the creation of a new oil pool and for special pool rules, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Bough "C" Oil Pool for its Signal State Well No. 1, located in Unit A of Section 29, Township 8 South, Range 33 East, Chaves County, New Mexico, and for the establishment of temporary pool rules therefor, including a provision for 80-acre proration units.

GOVERNOR
EDWIN
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 671
SANTA FE

Mr. James T. Jennings
Attorney at Law
Post Office Box 1180
Roswell, New Mexico

_____, 19____

Enclosure:

Enclosed herewith is Commission Order No. R- ²⁶⁷² ~~2272~~, entered in Case No. 3005, approving the Ambassador Pearsall Queen Unit Water Flood Project.

According to our calculations, when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 630 barrels per day.

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

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

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

Very truly yours,

Jason Kellahin
cc: OCC - Hobbs

A. L. PORTER, Jr.
Secretary-Director

DRAFT
JMD/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

Needs special letter

[Handwritten signature]

CASE No. 3005

Order No. R- 2272

2672

APPLICATION OF AMBASSADOR OIL CORPORATION
FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW
MEXICO.

[Handwritten signature]

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 11, 1964, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this _____ day of March, 1964, the Commission, a quorum being present, having considered the ~~application, the~~ testimony, the record, ~~and the recommendations~~ and the recommendations of the Examiner, _____, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the Pearsall Queen Sand Unit Agreement has been approved by the Commission by Order No. R- ; that the Pearsall Queen Sand Unit Area comprises 960 acres, more or less, of State and Federal land in Townships 17 and 18 South, Range 32 East, NMPM, Lea County, New Mexico, as more fully described in said order.
- (3) That the applicant, Ambassador Oil Corporation, seeks permission to institute a waterflood project in the Pearsall (Queen) in the Pearsall Queen Sand Unit Area by the injection of water in Queen formation through five wells located within said

DRAFT
JMD/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

needs special letter

JMD
CASE No. 3005

Order No. R- 2272

APPLICATION OF AMBASSADOR OIL CORPORATION
FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW
MEXICO.

2672

[Signature]

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 11, 1964, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this day of March, 1964, the Commission, a quorum being present, having considered the ~~application, the~~ testimony, the record, ~~and the~~ and the recommendations of the Examiner, ~~and being fully advised in the premises,~~

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the Pearsall Queen Sand Unit Agreement has been approved by the Commission by Order No. R- ; that the Pearsall Queen Sand Unit Area comprises 960 acres, more or less, of State and Federal land in Townships 17 and 18 South, Range 32 East, NMPM, Lea County, New Mexico, as more fully described in said order.
- (3) That the applicant, Ambassador Oil Corporation, seeks permission to institute a waterflood project in the Pearsall (Queen) Pool in the Pearsall Queen Sand Unit Area by the injection of water into the Queen formation through five wells located within said unit area.

(4) That the ~~wells in the~~ project area ^{are} in an advanced state of depletion and ^{*the majority of wells therein*} should properly be classified as "stripper" wells.

(5) That the proposed waterflood project is in the interest of conservation and should result in recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) That the subject application should be approved and the project should be governed by the provisions of Rule 701 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Ambassador Oil Corporation, is hereby authorized to institute a waterflood project in the Pearsall (Queen) Pool in the Pearsall Queen Sand Unit Area by the injection of water ^{*tubing and packer set immediately above the pay zone in*} into the Queen formation through the following-described five wells:

TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM,
LEA COUNTY, NEW MEXICO

Section 4

Well No. 4A-1 located in the SW/4 NW/4
" " 4-2 " " " NE/4 NW/4

Section 5

Well No 1-2 located in the SW/4 NE/4
" " 3-1 " " " NE/4 NE/4
" " 4-1 " " " NE/4 SE/4

(2) That the subject waterflood project shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including the allowable provisions thereof, and including the provisions with respect to expansion of the waterflood project.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

(4) 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.