

**CASE 4402: Application of RESERVE
OIL & GAS COMPANY FOR APPROVAL OF
THE COOPER-JAL UNIT AGREEMENT.**



Case Number

44102

Application
Transcripts.

Small Exhibits

ETC.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Box 1307, Roswell, New Mexico - 88201

IN REPLY REFER TO

#4402

Cooper Jal Unit

April 2, 1984

NOT STATE

Getty Oil Company
Attention: Mr. W. A. Frnka
P.O. Box 730
Hobbs, NM 88240

Gentlemen:

Enclosed is an approved copy of your 1984 Plan of Development and Operation for the Cooper Jal Unit Area, Lea County, covering the period beginning January 1, 1984, and ending December 31, 1984. This plan, proposing that numerous stimulations and remedial workovers on wells will be performed to improve secondary oil recovery during 1984, was approved this date, subject to like approval by the New Mexico Commissioner of Public Lands and the New Mexico Oil Conservation Division.

Sincerely yours,

S/ Richard Bastin

Associate District Manager

Enclosure (1)

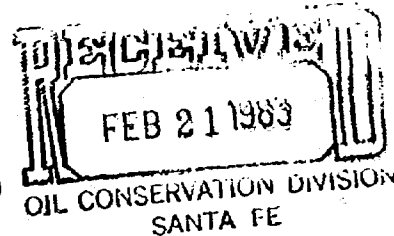
cc: Commissioner of Public Lands, Santa Fe
NMOCD, Santa Fe



IN REPLY
REFER TO:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
505 MARQUETTE AVENUE, N.W., SUITE 815
ALBUQUERQUE, NEW MEXICO 87102



FEB 17 1983

Getty Oil Company
Attention: Dale R. Crockett
P. O. Box 730
Hobbs, New Mexico 88240

Gentlemen:

An approved copy of your 1983 plan of development for the Cooper, Jal
unit area, Lea County, New Mexico, is enclosed. Such plan, proposing
to perform remedial and stimulation workovers on wells as they are
warranted, was approved on this date subject to like approval by the
appropriate officials of the State of New Mexico.

Sincerely yours,

(ORIG. SGD.) JAMES W. SHULTON

FOR Gene F. Daniel
Deputy Minerals Manager
Oil and Gas

Enclosure

cc:
NMOCD

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 19, 1970

EXAMINER HEARING

IN THE MATTER OF:

Case 4402: Application of Reserve Oil & Gas
Co. for a unit agreement, Lea County, New Mexico)
Cases: 4403 & 4404: Application of Reserve Oil
& Gas Co. for a waterflood project, Lea County,)
New Mexico)

Cases:

4402
4403
4404

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

Case Numbers: 4402, 4403, 4404

MR. HATCH: This is the application of Reserve Oil and Gas Company for a unit agreement, Lea County, New Mexico. The applicant seeks approval for the Cooper-Jal Unit Area comprising 2581 acres, more or less, of Federal and fee lands in Township 24 South, Ranges 36 and 37 East, Lea County, New Mexico.

MR. LOSEE: Mr. Examiner, A. J. Losee of Artesia, appearing on behalf of the applicant, Reserve Oil and Gas Company. I have two witnesses in this case and the next two cases, 4403 and 4404.

MR. NUTTER: Are they companion cases?

MR. LOSEE: Yes. They are. Waterflood and we would move to consolidate. Let me mention that our exhibits -- I will have to be careful in connection with the record because they are chronologically numbered only by cases, but they are companion cases.

MR. NUTTER: We will call the next case, 4403.

MR. HATCH: Application of Reserve Oil and Gas Company for a waterflood project, Lea County, New Mexico. Applicant in the above styled cause seeks authority to institute a waterflood project by water injection through 26 wells into the lower Seven-Rivers and Queen Formations underlying its Cooper-Jal Unit Area, Langlie-Mattix Pool, Lea County, New Mexico.

MR. NUTTER: And Case 4404.

MR. HATCH: Case 4404: Application of Reserve Oil and Gas Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by water injection through 23 wells into the Tansill Yates, and Upper and Middle Seven-Rivers formations underlying its Cooper-Jal Unit Area, Jalmat Pool, Lea County, New Mexico.

MR. NUTTER: Cases 4402, 4403 and 4404 will be consolidated for purposes of testimony

JOHN PINGREE

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

DIRECT EXAMINATION

BY MR. LOSEE

Q Would you state your residence and occupation, Mr. Pingree?

A I am Division Land Man for Reserve Oil and Gas Company located in Dallas, Texas.

Q You have not previously testified before this Commission?

A No. I have not.

Q Would you state what colleges you attended and the degrees obtained?

A I graduated from S.M.U. in 1950 with a B.A. in

Industrial Engineering.

Q Would you give a synopsis of your professional experience since your graduation from college?

A Yes, sir. I was employed by Magnolia Oil Company as a Land Man until 1960 when I went with Producing Properties, Incorporated as a manager of the Land Department and later with James A. Lusk Engineering, Dallas, as manager of the Land Department. Joined Reserve Oil and Gas Company in 1963 as Division Land Man.

MR. LOSEE: Mr. Examiner, are Mr. Pingree's qualifications accepted?

MR. NUTTER: Yes. They are.

Q Now, referring to Case 4402, would you explain briefly the purpose of the application?

A This is to secure approval from the New Mexico Oil Conservation Commission for Cooper-Jal Unit agreement for the orderly implementation of a waterflood operation in the Unit Area.

Q Was an Engineering Committee appointed to study this area?

A Yes. An Engineering Committee was appointed and held their initial meeting on May 19, 1967.

Q And has that Committee been working with the operators since that date to form this unit?

A Yes, sir. They have.

Q How many acres are in the Unit Agreement?

A Two thousand five hundred eighty-one acres.

Q Of those acres, what percentage is land owned by the United States?

A Twenty-eight point eighty-six percent or seven hundred forty-four point seventy-nine acres.

Q Are there any lands owned by the State of New Mexico?

A No.

Q What is the remaining percentage which is owned by private individuals?

A Seventy-one point one four percent or one thousand eight hundred thirty-six point twenty-one acres.

Q Has the United States designated this area as logically subject to unit possession?

A Yes. They have, by letter dated January 5, 1970.

Q Did the United States approve the form of Unit Agreement which has been marked as Exhibit 1?

A Yes, sir, also by the January 5, 1970 letter.

Q And the lands proposed to be included within this Unit Area are shown on Exhibit A to the Unit Agreement?

A Yes, they are.

Q What formations do you propose to be utilized?

A Tansill, Yates, Seven-Rivers and Queen's formation.

Q Now, what field or fields are included within this

unitized formation?

A Jalmat oil, Jalmat gas, and Langlie-Mattix.

Q What participation formula is adopted under Article 13 of the Unit Agreement?

A This Unit has two phases. Phase 1, which is based on one hundred percent total income for the year 1967 -- this Phase 1 will remain in effect until one million barrels has been produced from the Unit Area after 1, 1, 68. Phase 2 which would commence thereafter is based on one hundred percent of ultimate recovery as determined by the Engineering Committee.

Q Ultimate primary recovery?

A Yes.

Q What are some of the other participating factors that were considered by the Committee in the operation over the past three years?

A Well, total acres, the developed acres, number of oil wells, number of gas wells, total wells, 1967 oil production, 1967 casing head gas production, 1968 dry gas production, cumulative oil, remaining primary, ultimate primary and remaining dry gas.

Q Can you briefly explain why the Committee and the operators disregarded these others and came up with the formula you earlier mentioned?

A They could not reach an agreement as to the participation based on any of the other factors.

Q Who is designated as Unit Operator under the Agreement?

A Reserve Oil and Gas Company.

Q Under the provisions of Article 14 when is a Tract qualified for participation?

A When one hundred percent of the working interest owners, seventy-five percent of the royalty interest owners ratify the Unit.

Q Are all of the tracts within the Unit Area qualified for participation at this time?

A All except Tract No. 27 under which the working interest ownership is in dispute and we have been unable to obtain sufficient working interest on the ratification of the Unit Agreement to qualify this tract.

MR. NUTTER: That appears to be a forty acre tract, is that correct?

WITNESS: Yes, sir

Q And there is no producing well on that tract at this time?

A That is correct.

Q Now, has the United States requested that even though this tract is uncommitted at this time it be included within the Unit Area so that if the ownership problem can be eventually solved, commitment may be obtained?

A Yes, sir. They have.

Q Has Reserve contacted all of the interest owners and given them an opportunity to commit their interest to the Unit Agreement?

A We have contacted all of the royalty interest owners with the exception of three royalty owners under Tract No. 12 and we, Reserve Oil and Gas, nor the pipeline purchaser of the crude from this tract have been able to locate or give an address for these parties.

Q Their failure to ratify it does not prevent commitment of that tract?

A No, sir. They have a small royalty interest on it.

Q Now, please refer to Exhibit 2 in Case 4402 and explain briefly what is shown by this exhibit.

A Exhibit 2 we have set out by tracts the working interest, the overriding royalty interest and the royalty interest and the percentage as set out is a percentage of the working interest. Where it says a hundred, that shows a hundred percent of the working interest override and each tract, each classification under each tract is broken down into the percentage that it bears to the total. You will note where we say tract participation percentage, that is the percentage that their interest bears to the total. The second column which is percent of unit signed shows what part of that percentage has been signed by each owner, working interest, overriding or royalty interest owner.

Q Now, will this schedule show that all tracts except twenty-seven have a hundred percent of the working interest committed in at least seventy-five percent of the royalty interest committed?

A Yes. It does.

Q Under Article 20, 22 of the Agreement, when does it become effective?

A The Unit Agreement will become effective 7:00 A.M. on the first day of the month following three things: One, when we have received ratification of the Unit by eighty-five percent of the working interest owners, sixty-five percent of the royalty interest owners, approval by the New Mexico Oil Conservation Commission and the United States Geological Service and the filing of the Unit Agreement for records in Lea County, New Mexico.

Q In your opinion is the plan contained in the Unit Agreement for the development operation of the Cooper-Jal Unit area a proper conservation measure?

A Yes, sir. It is.

Q Will it prevent waste and will it protect the correlative rights within the Unit Area?

A Yes. It does.

MR. LOSEE: I have no further questions at this time of this witness, Mr. Examiner.

The next witness will cover the Engineering and Geogolical portions.

CROSS EXAMINATION

BY MR. NUTTER

Q Mr. Pingree, I didn't understand what percentage of the working interest you said had been committed.

A One hundred percent in all the tracts except Tract 27.

Q One hundred percent in all the tracts except Tract 27?

A Yes, sir.

Q Then you mentioned that three royalty owners have not been contacted because they haven't been located?

A Under Tract 12.

Q Under Tract 12?

A Yes, sir.

Q What percent of the total royalty owners have committed their interest?

A All the royalty interest owners with the exception of -- I am sorry -- I don't have the figures of the percentage of the total royalty committed, but we have only one lady in Tract 13 -- Mrs. Jessie Cooper -- and she owns a four point zero eight percent of that tract. Then we have the three owners under Tract 12.

Q So you do have a hundred percent of the working interest with that one tract exempt and you have the seventy-five percent royalty interest in every case?

A Except Tract 27.

Q So it is all committed then except Tract 27?

A Yes.

Q And there is no producing well therein?

A That is right.

MR. LOSEE: Let me take a minute to make a statement with respect to Tract 27. As he has testified, the United States, because the approval was given in Washington with the inclusion of this tract, they asked that we submit the unit with Tract 27, realizing at this time that it is not going to be committed. As a result, our application asks to include Tract 27 which, of course, will not be committed. Now, our waterflood application is delete Tract 27. If it is committed and that is taken into the project area, we will have to move to enlarge it.

MR. NUTTER: I see.

Are there any further questions of Mr. Pingree?

He may be excused.

(Witness excused)

Wyndel Thomas, having been first duly sworn, was examined and testified as follows.

DIRECT EXAMINATION

BY MR. LOSEE:

Q State your residence and occupation, Mr. Thomas.

A I am Division Petroleum Engineer of the Reserve Oil and Gas Company in Dallas, Texas.

Q You have not previously testified before this Commission and had your qualifications accepted?

A No, sir.

Q Would you state what colleges you have attended?

A Yes.

Q And what degree you obtained?

A I graduated from the University of Texas in 1958 with a Bachelor of Science in Petroleum Engineering. Following my graduation I have held various engineering positions with Honolulu Oil Corporation, American Petrofina Company of Texas, James A. Lusk Engineering and Reserve Oil and Gas.

MR. LOSEE: Are his qualifications acceptable?

MR. NUTTER: Yes. They are.

MR. LOSEE: I have marked an exhibit within the brochure erroneously, Mr. Examiner. They need to be --

MR. NUTTER: You can mark them all on the outside. We will just change them as we go through them.

Q Our first presentation will really be with respect to Case 4404, I think, which is the Jalmat. Explain briefly the purpose of the applicant's request in Case 4404.

A Reserve Oil and Gas Company, as the largest working interest owner in the designated Unit Operator, seeks approval to install a waterflood project in a portion of the Jalmat field, Lea County, New Mexico, in order to inject water into the Yates formation for the purpose of recovering oil reserves

which would otherwise be left in the reservoir.

Q Now, Mr. Thomas, what formations are included in the Unit area within the Jalmat field?

A Within the Unit area we have the Jalmat designation from the top of the Tansili formation, all of the Yates and all that -- the lower two hundred fifty feet of the Seven-Rivers formation.

Q Now, is the acreage covered in the proposed project area shown on your Exhibit 1?

A Yes, sir. Exhibit 1 shows thereon the outline of our proposed project area and you will note that we have also indicated the Federal acreage on the same exhibit. This project is located approximately six miles north of Jal in Lea County, New Mexico and the project area will contain approximately two thousand five hundred forty-one acres. The waterflood project will eventually contain twenty-three injection wells, twenty-two oil producing wells and five dry gas wells. At the end of 1969 nine wells were producing gas from the Yates formation within the proposed project area along with twenty-seven oil wells. Four of the present gas producing wells and three of the shutin gas wells will be later converted to water injection wells. Six of the gas wells will remain as gas producers.

Q Are there currently any other Yates waterflood projects in the area?

A Yes, sir. The Cone Jalmat Yates Unit and the Gulf Jalmat Yates Unit are located approximately twelve miles northwest of the proposed project area. Both projects appear to have responded favorably to the water injection. Injection programs were commenced at about 1961 in the Gulf project and in 1963 in the Cone project.

Q Does this proposed unitization cover only a portion of the pool?

A That is correct.

Q Have you considered border and lease line injection agreements with offset operators?

A We have considered them. We have not entered into any since we only have one area that this will cover later on in the project. You will note most of the oil producing portions of the reservoir is within the proposed project area. The southwest area of the injection project will be evaluated as the proposal progresses to determine the feasibility of lease line agreements.

Q Will you briefly tell us about the reservoir of the Yates, of the Jalmat Pool?

A All right, sir. If you will refer to Exhibit 2 of the brochure, this is a typical well log and comes from a well within the Unit area. We believe this log shows the characteristics of the Yates formation which is found at an average depth of about three thousand feet. The Yates

formation may be described as fine to medium crystalline dolomites and dolomitic limestones interbedded with fine to medium grained sands with the zones of porosity occurring irregularly as intercrystalline and fine vugular in the carbonates and as intergranular in the sand bodies. Regionally the Unit Area is located on the western edge of the central basin platform of the Permian basin but locally it is on a structurally low area or syncline and if you would refer to the Exhibit 3, perhaps this will be readily apparent. The regional dip in the area is west-southwest toward the Delaware basin but it is abruptly interrupted by a structurally high trend produced by the Cooper-Jal reef located to the west of the Unit Area. The northwest-southeast trending syncline produced by this reversal of dip extends beyond the Unit Area in both directions and is abnormally low locally to actually form a closed low in which most of the Unit is located. As we have indicated on Exhibit 3, the Yates formation is progressively higher structurally in all directions such that the oil accumulation in the Yates formation is virtually surrounded by wells producing dry gas from the Yates formation.

Now, if you will turn for a minute back to Exhibit 1, we have noted on this exhibit the status of the wells outside of the proposed Unit boundary and you will note that most of the wells located west of the Unit boundary have been plugged and

abandoned are recompleted as Jalmat gas wells. The annual report of the New Mexico Oil and Gas Engineering Committee lists most of these wells as having produced from the Jalmat oilfield. However, the oil recovery from these wells is far in excess of that produced by wells within the Unit Area.

Now I call your attention to the C. D. Woolworth Well No. 14 located in Section 26 -- that would be Unit L. It is classified as a Jalmat oilfield completion but during the year 1969 this well produced four thousand six hundred twenty-nine barrels of oil and one hundred seventy-three thousand seven hundred fifty-nine barrels of water. Based on this analysis we do not consider this to be the same producing horizon that we are dealing with in our unitized area. The average porosity of the Yates formation pay zone is estimated to be nine point eight percent and the permeability is estimated to be eleven point eight millidarcies. These averages were obtained from three hundred twenty-one samples which were available from the Yates formation within the Unit Area.

Q Was there sufficient reservoir data available to construct a net isopach map?

A In the Engineering Committee we reviewed all of the available data and available logs and the consensus of opinion was that there were not sufficient qualitative data available to construct such a map. Furthermore, we concluded that a gross pay aspect map would be of no value.

Q What can you say about the primary operations in the area of this project?

A The first oil production from the Jalmat zone occurred in 1947. By 1954 all drilling of the unit area had been completed with the greatest drilling activity occurring in 1950 when nineteen wells were completed. Several wells which once produced from the Langlie-Mattix Pool have been plugged back to the Jalmat Pool and also we have seven wells within the project area with cumulative oil production ranging from twenty six thousand to one hundred twenty-nine thousand barrels of Yates oil which have been reclassified as Jalmat gas pool wells. Now, a listing of these wells -- we have the Maggie Dunn Number 1, Maggie Dunn No. 2, Maggie Dunn No. 3, Jack Federal Number 4, A. J. Falby Number 3, C. C. Fristos "B" Number 1, Van Zant Number 4. Now, I will discuss these wells in greater detail when we move on to our next exhibit. The Unit also contains six dry gas wells which have not produced any Yates oil. The cumulative oil production from the Jalmat Zone on January 1, 1970 was three million nine-hundred twenty-seven thousand barrels. At that date the estimated remaining primary reserves were one hundred thirty-three thousand barrels. The daily average oil production per well for the twenty-seven wells which were producing oil during December of 1969 was three point six barrels of oil per day. At this stage all wells have reached an advanced

stripper stage of depletion. The oil is being produced by solution gas drive and the reservoir at this time is estimated to be ninety-six point eight percent depleted as to its primary reserves. The estimated ultimate primary recovery from the Unit Area is four million barrels. The dry gas production from the Unit Area during the year 1969 was four hundred seventy-eight thousand F.C.M. from nine wells.

Q Would you please refer to Exhibit 4 and outline your plans for recovery of additional oil by waterflooding?

A Exhibit 4 denotes the waterflood pattern for the Jalmat Zone. It is planned to have eventually twenty-three injection wells and twenty-two producers. As I mentioned earlier, there were several wells which had produced oil that were later converted to statutory oil wells. On Exhibit 4 I have indicated these wells with a blue circle surrounded by an orange triangle. The wells which produce only dry gas are indicated only by an orange triangle. In our negotiations and in the Engineering Committee we concluded that to effect the maximum oil recovery from this particular producing interval it would be necessary for us to include these leases containing the wells which had produced oil previously. It was the opinion that there would be residual oil left. It would not be recovered otherwise.

Now, you will also note on this exhibit that we have some dashed lines going to several of these gas wells that are

indicated to be future injectors. The timing of the conversion of these wells to injection service will be dependent upon the volume of production from the gas wells and the performance of the surrounding pattern. We do not plan to commence injection into all of the gas wells immediately but we would prefer to see how our project advances and performs as to each individual pattern. We plan to inject approximately three hundred fifty barrels of water per day into each injection well. The injection pressure is estimated to be twelve hundred P.S.I. at the well head. However, we have designed our injection plant and the system for a maximum operating pressure of eighteen hundred forty-five P.S.I., so that we will have additional pressure available if it is required.

Q Please refer to what has been marked as Exhibits 5 and 6, being the diagrammatic sketches of typical completions and explain what is shown by these.

A Yes, sir. Exhibit No. 5 and 6 are diagrammatic sketches of a typically singly completed injection well and typically completed dual well. All of the injection wells within the project area will be completed as illustrated in these exhibits. Referring to Exhibit 5, which is the singly completed injection well, we will inject down 2-3/8" internally coated tubing below a tension type packer which will be set approximately fifty feet above the casing shoe or perforations, depending upon whether the well is an open hole completion or

a perforated completion.

In Exhibit 6, the dually completed injection well, we will inject down 2-3/8" internally coated tubing. A permanent packer will separate the Jalmat Zone from the deeper Langlie-Mattix Zone and a tandem tension packer will be set approximately fifty feet above the Jalmat perforation.

Control of the water injected into each zone will be by means of two down hole regulators as illustrated in the sketch. The casing tubing annulus will contain inhibited fresh water.

In conjunction with our injection wells we have Exhibit 7 which is a tabulation of the casing tubing and packer setting for all of the injection wells. The minimum amount of cement coverage above the injection interval is approximately 170'.

Q And most of them are actually greater than 170'?

A That is correct.

Q Will there be positive protection against the pollution of the fresh water aquifer.

A Yes, sir. All aquifers from the surface down to total depth of completed interval will be protected by the existing casing strings and by maintaining their condition -- also periodic checks of the pressure on the tubing casing annulus will immediately give us an indication of any problem that might develop.

Q You mentioned dual injection wells. Will you explain these further?

A The twenty-three proposed injection wells -- we will have five dual injectors. These are the Petroleum Corporation of Texas Maggie Dunn No. 2; Cities Service Jack "A" Federal No. 1 --

MR. NUTTER: We better take those slowly so we can get those. Maybe you can just give the locations as well. Are they listed in the application?

WITNESS: We have noted in the remarks on Exhibit 7 the dual injectors and we can give you the locations.

MR. NUTTER: O.K. They are identified on the application anyway, so you don't have to take it so slow.

WITNESS: All right, sir. The Continental Oil Jack Federal No. 1; Humble No. 4 and Amerada Falby No. 3. Through each of these wells water will be injected into both the Jalmat and Langlie-Mattix Zone. These dual wells will be completed as previously discussed. The fresh water aquifers will be protected in these wells in the same manner as in the singly completed injection wells.

Q What will be the source of your injection water?

A The injection water will be purchased from Skelley Oil Company. In addition to the water purchased, all water produced with the oil will be reinjected. The volume of produced water will not be significant initially.

Q Do you know the quality of the water that you will purchase from Skelley?

A It is classified as saline and non-potable.

Q Will you treat the water prior to injection?

A No, sir. Our injection system and tubing will be coated to prevent corrosion. However, in the future, if tests indicate filtration or chemical treatment is desirable, we will take the appropriate action.

Q How much additional oil do you think will be recovered from the project area due to this proposed water injection program?

A We estimate three million barrels of additional oil will be recovered by this waterflood project. This estimate is based on the waterflood recovery being seventy-five percent of the estimated ultimate primary recovery. Recovery of this additional oil will increase the productive life of the well in the Unit Area.

Q Do you believe this proposed water injection project is in the best interest of conservation and prevention of waste?

A Yes, sir. Under primary operations only a small percentage of the oil in place will be recovered and we feel that the proposed water injection project will recover approximately an additional fifteen percent of the oil in place and at the same time increase the productive life of the wells in the proposed units. We have estimated that twelve years will be required to complete the reservoir

under waterflood operations. Without the waterflood project, most of the wells would be abandoned in the near future as most of the wells are at or near the economic limit.

MR. LOSEE: Mr. Examiner, would you like for me to proceed then to the other project?

MR. NUTTER: Just go right on.

Q Now, the application in Case No. 4403 is for approval of a waterflood project in what zones or field?

A This approval is requested for the installation of a waterflood project in a portion of the Langley-Mattix field located in Lea County, New Mexico in order to inject water into the lower two hundred fifty feet of the Seven-Rivers formation and the entire Queen formation for the purpose of recovering oil reserves which would otherwise be left in the reservoir.

Q Now, your Exhibit No. 1 then in Case No. 4403 reflects the outline of the project area?

A Yes, sir. This exhibit shows thereon the outline of our project area and, once again, it is located approximately six miles north of Jal-New Mexico. This project area will contain two thousand five hundred forty-one acres. At the end of 1969 thirty wells were producing from the Langley-Mattix zone. However, many of the Langley-Mattix zone wells have been plugged back to the Jalmat zone, temporarily abandoned or shut in. The project will eventually include

approximately fifty-one wells of which twenty-six will be injectors.

Q Are there any other Langley-Mattix zone waterflood projects in this area?

A Yes. There are several other projects in operation in this pool. The Amerada operated Woolworth unit is located two miles to the east. The Continental Oil operated Langley Jack unit is located approximately one and one-half miles to the east. In addition, several other projects are in operation in the general area as well as several other projects in planning stages.

Q Now, again, it appears that this is the only unitization or waterflood project in a portion of the pool.

A That is correct.

Q Have you entered into any lease line or border agreements surrounding the project area?

A On the extreme northern boundary of the unit we planned planned to cooperate with the proposed Myers, Langley-Mattix unit when it is formed. Also, if possible, we plan cooperative injection with Continental on their Jack "B" Seventeen lease which is on the northeast area. On the west boundary of the unit, if you will refer to Exhibit 1, most of the wells adjacent to the unit boundary have been plugged and abandoned or they have since been recompleted as Jalmat Gas wells.

I would call your attention, however, to one well, the C. D. Woolworth No. 7 located in Section 23. It is presently classified as a Langley-Mattix complex. However, during 1969 this well produced five thousand six hundred eighty-six barrels of oil and one hundred ten thousand three hundred forty-three barrels of water. The production history indicates that this well is not in common with the Langley-Mattix zone proposed for water injection. In this project along the southern and eastern boundaries of the unit there are no wells completed in the Langley-Mattix zone.

Q Are any of the nearby Langley-Mattix waterflood projects responding favorably?

A Yes. Most of the waterflood projects in the Langley-Mattix zone have responded favorably to the water injection program. The Langley-Mattix unit has increased in oil production from about four thousand barrels per month at the start of the flood to approximately fifty thousand barrels per month at the present time. This project has been expanded at least twice and in all probability has not reached its peak at this time.

Q Will you tell us something further about the Langley-Mattix reservoir consisting of the lower two hundred fifty feet of the Seven-Rivers and the entire Queen formation.

A Referring to Exhibit 2, we have a typical well log. We have the proposed area and we have indicated on this log

the top of the proposed unitized interval and the bottom of the proposed interval of which we believe this log shows the characteristic productive zone as exists in the lower Seven-Rivers Queen formations. The average depth of the productive zone is about thirty-five hundred feet and is either Seven-Rivers or Queen, depending upon the structural position of the individual well. The Seven-Rivers is the predominant producing formation within the unit area and that formation may be described as fine to medium crystalline dolomites and dolomitic limestones interbedded with fine to medium grained sands with zones of porosity occurring irregularly as inter-crystalline and fine vugular in the carbonates and as inter-granular in the sand bodies.

If you will refer to Exhibit 3, which is a structure map, contoured on top of the Yates formation. Regionally, the unit area is located on the western edge of the central basin platform of the Permian Basin but locally it is on a structurally low area or syncline. The regional dip of the area is west-southwest toward the Delaware Basin but is abruptly interrupted by a structurally high trend produced by the Cooper-Jal Reef located to the west of the unit area. The northwest-southeast trending syncline produced by this reversal of dip extends beyond the unit area in both directions and is abnormally low locally to actually form a closed low in which most of the unit is located. As a result of these

structural conditions the oil accumulation has been greater in the beds than this whole area. The oil bearing zones are progressively higher structurally to both the east and west until they pinch out or become altered by facies changes in those directions. Along the axis of the syncline the formations involved are all oil productive elsewhere, particularly in local, abnormally low areas such as that of this area.

Q What is the porosity and permeability of the Langley-Mattix zone in this area.

A In this particular zone we have only a limited amount of core analysis data and based on forty-five samples available, the average permeability was nineteen point five millidarcies and the average porosity of fourteen point two percent.

Q Can you briefly outline what the primary operations were in this area?

A The first oil production occurred in 1941. By the end of 1950 twenty-five wells were producing and by the end of 1956, when the last well was drilled, approximately fifty-three wells had been drilled. The year of greatest drilling activity was 1954 when twenty wells were completed. At the end of 1969 thirty wells were producing from the Langley-Mattix pool. As many of the wells had been plugged back to the Jalmat zone or temporarily abandoned, the cumulative production to January 1, 1970 was two million twenty-eight

thousand barrels. During December of 1969 the daily average oil producing per well was only 2.1 barrels, which, once again, indicates the advanced stripper stage of depletion.

Based on our decline curve analysis it is estimated as of January 1, 1970 the remaining primary oil reserve is for approximately sixty five thousand barrels. The ultimate, up to the primary oil recovery, is estimated to be two million barrels of oil. Based on these estimates the reservoir at this time is ninety-six point nine percent depleted of primary oil reserves. The reserves produced by solution gas drive and the original reservoir pressure is unknown. The average G.O.R. for 1969 was nineteen thousand five hundred cubic feet per barrel.

Q Would you tell us something about your plans for recovery of additional oil by waterflooding?

A Yes. If you would refer to Exhibit 4, we have shown thereon the proposed injection pattern. We do not plan to install a pilot flood since we believe the other floods in the area have adequately indicated that a favorable response may be anticipated. The initial injection rate will be approximately three hundred fifty barrels per injection well per day. Injection pressure is estimated to be twelve hundred P.S.I. at the well head. However, our injection plant and system will be designed for eighteen hundred forty-five P.S.I.

Q How do you plan to inject the water into these wells?

A Referring to Exhibits No. 5, 6, 7, and 8, we have shown as diagrammatic sketches the diagram of the typical injection well. All of the injection wells will be completed essentially as shown on the diagrammatic sketches. Injection will be down 2-3/8" entirely coated tubing below a tension type packer approximately fifty feet above the casing shoe and into the lower Seven-Rivers and Queen formations through perforations or open holes as the case may be. Except for dually completed wells producing gas out of the annulus, the tubing case annulus will contain fresh water inhibited for corrosion protection.

Q Now, please refer to what is Exhibit 9 and explain what is shown by this exhibit.

A This exhibit contains the tabulation of the casing tubing and packer settings for all of the injection wells in the project area. The minimum cement coverage above the injection interval is one hundred feet. However, this is the minimum point and most of the wells will have far in excess of this amount.

Q In this manner do you believe there will be positive protection against pollution of the fresh water aquifer?

A Yes. All aquifers from the surface down to total depth of the completed interval will be protected by the existing casing strings and by maintaining this condition. Also a periodic checking of the pressure on the tubing casing

annulus will immediately provide any indication of any trouble.

Q Now, you mentioned dual injection wells. Will you explain that a little further, please?

A Yes, sir. Of the twenty-six proposed injection wells six wells will be duals. We have indicated on Exhibit No. 9, in the remarks column, which of these wells will be dually completed as injection wells. Listing the wells we have the Reserve Oil and Gas Gutman No. 1 which will be an injection well in the Langley-Mattix zone and a producer from the Jalmat Gas pool. The following wells will be injectors in both Langley-Mattix and Jalmat zones. They are the Petroleum Corporation Maggie Dunn No. 2; Cities Service Jack "A" Federal No. 1; Continental Jack Federal No. 1; Humble Hunter No. 4 and the Amerada Falby No. 3.

Q Again, these are wells listed in your application before the Commission, these dual wells?

A That is correct.

Q Do you see any difficulties in preventing the injection of water from entering the Jalmat zone of the Reserve Gutman well No. 1?

A No, sir. This well will have five and a half inch casing set three thousand four hundred forty-eight feet and the water will be injected beneath a packer set at approximately thirty-four hundred feet into the open hole interval from thirty four forty-eight to thirty-five ninety-one feet.

The Jalmat zone produces gas through perforations from twenty-nine forty-eight to three thousand forty-eight feet. The Jalmat zone will be adequately protected by four hundred feet of cement casing. Any comingling between the water injection zone and the gas producing zone will be immediately apparent.

Q What about the duals that will become dual injectors?

A Well, these wells will be completed as shown on the diagrammatic sketches. A permanent packer will separate the Jalmat zone from the Langley-Mattix zone and a tandem tension packer will be set approximately fifty feet above the Jalmat perforation. Injection will be down 2-3/8" internally coated tubing and the control of the injected water into each zone will be by means of two down-hole regulators as illustrated on the sketches. Casing tubing annulus will contain inhibited fresh water.

Q Now, again, Mr. Thomas, the source of your injection water, the quality and its treatment prior to the injection will be the same for the Langley-Mattix zone as for the Jalmat zone?

A That is correct.

Q How much additional oil do you think will be recovered from the project area due to the proposed program?

A We estimate a million five hundred seventy thousand barrels of additional oil will be recovered by this waterflood

project. This estimation is based on the waterflood recovery being seventy-five percent of the estimated ultimate primary recovery. Recovery of this additional oil will increase the productive life of the wells in the Unit area.

Q Do you believe that the proposed water injection project is in the best interest of conservation and will prevent waste?

A Yes, sir. Under primary operations on this, only a small percentage of the oil in place will be recovered. We feel the proposed water injection project will recover an additional fifteen percent of the oil in place and at the same time increase the productive life of the wells in the proposed Unit. We estimate eight years will be required to deplete the reservoir under waterflood operations and without this waterflood project most of the wells would be abandoned in the near future as many of them are near or below the economic limit.

Q Mr. Thomas, were Exhibits 1 through 9 in Case 4403 and Exhibits 1 through 7 in Case 4404 prepared by you or under your supervision?

A Yes, sir. They were.

MR. LOSEE: Let me ask the other witness one question.

Mr. Pingree, was Exhibit 2 prepared -- in Case No. 4402 -- prepared by you?

MR. PINGREE: Yes.

MR. LOSEE: We move introduction of the applicant's exhibits.

MR. NUTTER: Applicant's exhibits in Cases 4402, 03, and 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits were marked for identification)

MR. LOSEE: I have no further direct examination.

MR. NUTTER: Anyone have any questions of Mr. Thomas?

CROSS EXAMINATION

BY MR. NUTTER

Q Mr. Thomas, in Case No. 4404 you mentioned, when you were referring to the dual injectors that the annulus would be loaded with an inhibited fresh water. That also applies to the single injectors too?

A Yes.

Q So all injectors except the ones where you are producing through the annulus would have the annulus loaded with an inhibited fluid and that annulus can be equipped with a pressure gage to detect leakage?

A Yes, sir. They will be so equipped.

MR. NUTTER: Are there any other questions of

Mr. Thomas?

He may be excused.

(Witness excused)

Do you have anything further in this case, Mr. Losee?

MR. LOSEE: No, sir.

MR. NUTTER: We will take these cases under advisement and I will recess the hearing until 1:15.

(Whereupon a recess was held
which ended this oil hearing)

* * * * *

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, Peter A. Lumia, Court Reporter, in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Commission was reported by me and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Peter A. Lunn
Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Executive hearing of Cases No. 4402, 4403, 4404 held by me on 8/19, 1970.

Arthur, Engineer
New Mexico Oil Conservation Commission

I N D E X

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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. 4404
Order No. R-4020

APPLICATION OF RESERVE OIL AND GAS
COMPANY FOR A WATERFLOOD PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

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

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 applicant, Reserve Oil and Gas Company, seeks authority to institute a waterflood project in the Cooper-Jal Unit Area, Jalmat Pool, by the injection of water into the Tansill, Yates, and Upper and Middle Seven Rivers formations through 23 injection wells in Township 24 South, Ranges 36 and 37 East, NMPM, Lea County, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

CASE No. 4404
Order No. R-4020

(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

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

Operator Lease	Well No.	L o c a t i o n			
		Unit	Section	Township	Range
Amerada Falby	3 (a dual completion)	K	19	24S	37E
	4	M	19	24S	37E
Cities Service Jack "A" Federal	1 (a dual completion)	M	18	24S	37E
Continental Jack Federal 19	1 (a dual completion)	E	19	24S	37E
	4	C	19	24S	37E
Humble Hunter	3	E	24	24S	36E
	4 (a dual completion)	C	24	24S	36E
Thomas	1	O	23	24S	36E
	3	M	24	24S	36E
Petroleum Corporation of Texas M. Dunn	1	O	13	24S	36E
	2	I	13	24S	36E
Harrison	1	C	25	24S	36E
	7	E	25	24S	36E

Operator Lease	Well No.	L o c a t i o n			
		Unit	Section	Township	Range
Phillips	2	I	24	24S	36E
Thomas	1	O	24	24S	36E
	4	K	24	24S	36E
Reserve Oil and Gas Company Van Zandt	2	A	25	24S	36E
	4	G	25	24S	36E
Atlantic Richfield Company Dunn SCP	1	G	24	24S	36E
	3	A	24	24S	36E
Texaco Fristoe "B"	1	E	30	24S	37E
	3	C	30	24S	37E
Texas Pacific Myers "B" Federal	1	A	26	24S	36E

(2) That the subject waterflood project is hereby designated the Reserve Cooper Jal Jalmat Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 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

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

S E A L

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

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:

CASE No. 4403
Order No. R-4019

APPLICATION OF RESERVE OIL AND GAS
COMPANY FOR A WATERFLOOD PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

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

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 applicant, Reserve Oil and Gas Company, seeks authority to institute a waterflood project in the Cooper-Jal Unit Area, Langlie-Mattix Pool, by the injection of water into the Lower Seven Rivers and Queen formations through 26 injection wells in Township 24 South, Ranges 36 and 37 East, NMPM, Lea County, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

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

<u>Operator Lease</u>	<u>Well No.</u>	<u>L o c a t i o n</u>			
		<u>Unit</u>	<u>Section</u>	<u>Township</u>	<u>Range</u>
Amerada Falby	3 (a dual completion)	K	19	24S	37E
Cities Service Hansen-Jack	1	K	18	24S	37E
Jack "A" Federal	1 (a dual completion)	M	18	24S	37E
Continental Oil Company Jack Federal 19	1 (a dual completion)	E	19	24S	37E
	8	C	19	24S	37E
Harlan Bates	1	E	18	24S	37E
Humble E. Hunter	4 (a dual completion)	C	24	24S	36E
Petroleum Corporation of Texas M. Dunn	2 (a dual completion)	I	13	24S	36E
	4	O	13	24S	36E
Harrison	6	F	25	24S	36E
	8	D	25	24S	36E

Operator Lease	Well No.	L o c a t i o n			
		Unit	Section	Township	Range
Phillips	4	P	24	24S	36E
Thomas	6	J	24	24S	36E
	7	K	24	24S	36E
Reserve Oil and Gas Company					
Andrews	2	A	18	24S	37E
Hunter	3	M	13	24S	36E
	5	K	13	24S	36E
Gutman	1	G	18	24S	37E
	(a dual completion)				
Russell "A"	1	I	18	24S	37E
Van Zandt	5	B	25	24S	36E
	7	H	25	24S	36E
Atlantic Richfield Company					
Bates	1	C	18	24S	37E
Dunn SCP	5	H	24	24S	36E
	6	A	24	24S	36E
Texaco					
Fristoe "B"	5	D	30	24S	37E
Texas Pacific					
Bates	1	O	18	24S	37E

(2) That the subject waterflood project is hereby designated the Reserve Cooper Jal Langmat Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

-4-

CASE No. 4403

Order No. R-4019

(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

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

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

S E A L

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:

CASE No. 4402
Order No. R-4018

APPLICATION OF RESERVE OIL AND GAS
COMPANY FOR APPROVAL OF THE COOPER-
JAL UNIT AGREEMENT, LEA COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

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

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 applicant, Reserve Oil and Gas Company, seeks
approval of the Cooper-Jal Unit Agreement covering 2581 acres,
more or less, of Federal and fee lands described as follows:

LEA COUNTY, NEW MEXICO

TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM

Section 13: S/2
Section 14: SE/4 SE/4
Section 23: S/2 SE/4
Section 24: All
Section 25: N/2
Section 26: E/2 NE/4

TOWNSHIP 24 SOUTH, RANGE 37 EAST, NMPM

Section 18: All
Section 19: W/2
Section 30: NW/4

(3) That approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

IT IS THEREFORE ORDERED:

(1) That the Cooper-Jal Unit Agreement is hereby approved.

(2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.

(3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.

(4) That this order shall become effective upon the approval of said unit agreement by the Director of the United States Geological Survey; that this order shall terminate ipso facto upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.

(5) 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

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

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

S E A L

esr/

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 1</u>		
<u>Working Interest Owners</u>		
Texaco Inc.	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
None	N/A	
<u>Royalty Owners</u>		
U.S.A.	100.0000	
<u>TRACT NO. 2</u>		
<u>Working Interest Owners</u>		
Amerada Petroleum Corporation	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Atlantic Richfield Company	26.6055	
Bonnie R. Etz	24.4649	
George Etz	24.4648	
Fluor Corporation	24.4648	
Total	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
U.S.A.	100.0000	
<u>TRACT NO. 3</u>		
<u>Working Interest Owners</u>		
Texas Pacific Oil Company, Inc.	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
None	N/A	
<u>Royalty Owners</u>		
U.S.A.	100.0000	
<u>TRACT NO. 4</u>		
<u>Working Interest Owners</u>		
Petroleum Corporation of Texas	50.0000	
Reserve Oil and Gas Company	50.0000	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Phillips Petroleum Company	100.0000	<u>100.0000</u>

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Appl EXHIBIT NO. 2
CASE NO. 4402

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 4 (Cont'd.)</u>		
<u>Royalty Owners</u>		
U.S.A.	100.0000	
<u>TRACT NO. 5</u>		
<u>Working Interest Owners</u>		
Continental Oil Company	50.0000	
T. J. Sivley	25.0000	
Dorothy B. Lind	25.0000	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Atlantic Richfield Company	12.5251	
Estate of W. H. Jack	11.2725	
Catholic Church Extension Society	10.0201	
J. H. Daws	01.2525	
Mack Easley	01.2525	
Howard Bradley Jack	00.4258	
Lucille R. Jack	11.2725	
Annie May Kavanaugh	11.8987	
Mrs. Charles S. Mitchell	01.2525	
Pan American Petroleum Corporation	12.5251	
John Quinn	01.2525	
Standard Oil Company of Texas (Chevron)	12.5251	
Continental Oil Company	12.5251	
Total	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
U.S.A.	100.0000	
<u>TRACT NO. 6</u>		
<u>Working Interest Owners</u>		
Cities Service Oil Company	83.3333	
Hanson Oil Company	16.6667	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Catholic Church Extension Society	10.0000	
Chevron Oil Company	12.5000	
J. H. Daws	01.2500	
Mack Easley	01.2500	
Howard Bradley Jack	00.6250	
Lucille R. Jack	11.2500	
Estate of William H. Jack	11.2500	
Annie May Kavanaugh	11.8750	
Mrs. Charles S. Mitchell	01.2500	
John Quinn	01.2500	
Atlantic Richfield Company	12.5000	
(Cont'd.)		

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 6 (Cont'd.)</u>		
Continental Oil Company	12.5000	
Pan American Petroleum Corporation	12.5000	
Total	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
U.S.A.	100.0000	
<u>TRACT NO. 7</u>		
<u>Working Interest Owners</u>		
Cities Service Oil Company	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Catholic Church Extension Society	10.0000	
Chevron Oil Company	12.5000	
J. H. Daws	01.2500	
Mack Easley	01.2500	
Howard Bradley Jack	00.6250	
Lucille R. Jack	11.2500	
Estate of William H. Jack	11.2500	
Annie May Kavanaugh	11.8750	
Mrs. Charles S. Mitchell	01.2500	
John Quinn	01.2500	
Atlantic Richfield Company	12.5000	
Continental Oil Company	12.5000	
Pan American Petroleum Corporation	12.5000	
Total	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
U.S.A.	100.0000	
<u>TRACT NO. 8</u>		
<u>Working Interest Owners</u>		
Reserve Oil and Gas Company	50.0000	
Atlantic Richfield Company	50.0000	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Scope Industries	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Albuquerque National Bank, Testamentary Trustee of F. A. Andrews, Dec'd.	11.5700	
Selma E. Andrews Agency	13.4300	
Harry Arledge	01.0400	
S. M. Aronson	01.2500	
Jessie B. Crump	06.2500	
(Cont'd.)		

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 8 (Cont'd.)</u>		
Joe and Jessie Crump Fund	06.2500	
Alfred E. Gutman	04.9300	
Daniel L. Gutman	04.9300	
Mrs. Dorothy Gutman, Trustee	02.4700	
Dorothy Gutman	04.9300	
Daniel Gutman, Trustee of Estate of Max Gutman	14.7900	
Betty Gutman Gutttag	07.4000	
Hendrick Memorial Hospital	12.5000	
Mrs. Julia Levine Daniels	02.0800	
Scope Industries	00.6200	
Atlantic Richfield Company	00.6200	
Edith G. Socolow	04.9400	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 9</u>		
<u>Working Interest Owners</u>		
Atlantic Richfield Company	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
None	N/A	
<u>Royalty Owners</u>		
Charles T. Bates, Jr.	03.6100	
James Ray Bates	03.6100	
Kenneth C. Bates	03.6100	
Lucille Chism Bates	03.1300	
Theodocia (Docia) G. Bates	12.6400	
Warren J. Bates	03.6100	
Estate of Ether Chism	20.8300	
Catherine L. Dumraese	27.0800	
Wilma Chism Lain	03.1300	
Norma Chism McCarthy	03.1300	
Mary Louise Nommensen	03.1200	
Oil Finders, Inc.	03.1300	
Atlantic Richfield	09.3700	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 10</u>		
<u>Working Interest Owners</u>		
John L. Harlan	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Atlantic Richfield Company	50.0000	
Oil Well Remedial Service	25.0000	
Florence M. Lathrop	25.0000	
Total	100.0000	<u>75.0000</u>

out ownership of interest
unknown

UNIT OPERATING AGREEMENT
COOPER JAIL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 10 (Cont'd.)</u>		
<u>Royalty Owners</u>		
Kenneth C. Bates	03.6100	
Docia Bates	03.6100	
Charles T. Bates, Jr.	03.6100	
James Ray Bates	03.6100	
Warren J. Bates	03.6100	
Theodocia C. Bates	09.0300	
Oil Finders, Inc.	03.1300	
Atlantic Richfield Company	09.3800	
Catherine L. Dumraese	27.0800	
Estate of Ether Chism	20.8300	
Lucille Chism Bates	03.1300	
Wilma Chism Lain	03.1300	
Norma Chism McCarthy	03.1200	
Mary Louise Nommensen	03.1200	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 11</u>		
<u>Working Interest Owners</u>		
Texas Pacific Oil Company, Inc.	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Docia Bates	39.6226	
Catherine L. Dumraese	60.3774	
Total	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Charles T. Bates, Jr.	04.4500	
Docia Bates	15.5600	
James Ray Bates	04.4500	
Kenneth C. Bates	04.4500	
Lucille Chism Bates	03.1200	
Warren J. Bates	04.4500	
Estate of Ether Chism	20.8300	
Catherine L. Dumraese	33.3300	
Wilma Chism Lain	03.1200	
Norma Chism McCarthy	03.1200	
Mary Louise Nommensen	03.1200	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 12</u>		
<u>Working Interest Owners</u>		
Texas Pacific Oil Company, Inc.	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
The Colorado Corporation	00.0553	
Joseph C. Blake	00.0553	
(Cont'd.)		

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 12 (Cont'd.)</u>		
Daisy D. Blankenship	33.0648	
Georgia Lee Clarke	08.8206	
C. S. Daley	00.1105 ←	out UNABLE TO LOCATE
Myrtle L. Davis	00.2204	
L. M. and Yvonne Baird Decker	45.7661	
Margaret R. Ellison	00.0553	
Roy F. Faskin	00.1104	
Elizabeth Rittenhouse Lamb	00.0552	
Harry Levy	00.1099 ←	out UNABLE TO LOCATE
Paul and Martha Lyon	08.8206	
Beverly B. Nelson	00.1105	
Joseph Nelson	00.2204 ←	out UNABLE TO LOCATE
Veva Neva K. Nelson	00.4408	
Earle M. Simon	00.1099	
Elmer H. Wahl	01.7641	
A. W. Wuestenberg	00.1099	
Total	100.0000	<u>99.5592</u>
<u>Royalty Owners</u>		
The Colorado Corporation	00.0100	
Joseph C. Blake	00.0100	
Daisy D. Blankenship	15.0000	
Georgia Lee Clarke	01.5600	
C. S. Daley	00.0200 ←	out
Myrtle L. Davis	00.0400	
L. M. and Yvonne Baird Decker	81.2500	
Margaret R. Ellison	00.0100	
Roy F. Faskin	00.0200	
Elizabeth Rittenhouse Lamb	00.0100 ←	out
Harry Levy	00.0200	
Paul and Martha Lyon	01.5600	
Beverly B. Nelson	00.0200	
Joseph Nelson	00.0400 ←	out
Veva Neva K. Nelson	00.0800	
Earle M. Simon	00.0200	
Elmer H. Wahl	00.3100	
A. W. Wuestenberg	00.0200	
Total	100.0000	<u>99.9200</u>
<u>TRACT NO. 13</u>		
<u>Working Interest Owners</u>		
Texas Pacific Oil Company, Inc.	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
None	N/A	

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 13 (Cont'd.)</u>		
<u>Royalty Owners</u>		
Atlantic Richfield Company	18.3700	
Jessie Cooper	04.0800	out
General Crude Oil Company	09.1800	
Kenneth N. Headley	00.7700	
Frances Smyrl Jennings	00.7600	
John H. Hendrix	48.9800	
Mobil Oil Corporation	16.3300	
Southern Petroleum Exploration, Inc.	01.5300	
Total	100.0000	<u>95.9200</u>
<u>TRACT NO. 14</u>		
<u>Working Interest Owners</u>		
Petroleum Corporation of Texas	50.0000	
Atlantic Richfield Company	50.0000	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Aikman Oil and Gas Company	50.0000	
G. W. Hutcheson	50.0000	
Total	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Atlantic Richfield Company	40.0000	
Billy Dunn	06.0700	
Haskell J. Dunn	04.2800	
Ralph S. Dunn	04.2800	
Fluor Corporation	20.0000	
Annie Ford	06.0700	
Ima Hays	01.6700	
G. M. Jenkins	01.6700	
North Central Oil Corporation	07.5000	
Roger B. Owings	02.5000	
Sharon Dunn Riley	00.3600	
Mona Dunn Shofner, Aux. Adm. of Estate of Walker A. Dunn, Dec'd.	03.5700	
Annabel Winningham	01.6700	
Suspense (Walker A. Dunn, Jr.)	00.3600	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 15</u>		
<u>Working Interest Owners</u>		
Atlantic Richfield Company	100.0000	<u>100.0000</u>

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT 15 (Cont'd.)</u>		
<u>Overriding Royalty Owners</u>		
None	N/A	
<u>Royalty Owners</u>		
Atlantic Richfield Company	40.0000	
Billy Dunn	06.0700	
Haskell J. Dunn	04.2800	
Ralph S. Dunn	04.2800	
Fluor Corporation	20.0000	
Annie Ford	06.0700	
Ima Hays	01.6700	
G. M. Jenkins	01.6700	
North Central Oil Corporation	07.5000	
Roger B. Owings	02.5000	
Sharon Dunn Riley	00.3600	
Mona Dunn Shofner, Aux. Adm. of Estate of Walker A. Dunn, Dec'd.	03.5700	
Annabel Winningham	01.6700	
Suspense (Walker A. Dunn, Jr.)	00.3600	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 16</u>		
<u>Working Interest Owners</u>		
Atlantic Richfield Company	50.0000	
Reserve Oil and Gas Company	37.5000	
Petroleum Corporation of Texas	12.5000	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Scope Industries	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Atlantic Richfield Company	40.0000	
Billy Dunn	06.0700	
Haskell J. Dunn	04.2800	
Ralph S. Dunn	04.2800	
Fluor Corporation	20.0000	
Annie Ford	06.0700	
Ima Hays	01.6700	
G. M. Jenkins	01.6700	
North Central Oil Corporation	07.5000	
Roger B. Owings	02.5000	
Mona Dunn Shofner, Aux. Adm. of Estate of Walker A. Dunn, Dec'd.	03.5700	
Annabell Winningham	01.6700	
Suspense (Sharon Dunn Riley and Walker A. Dunn, Jr.)	00.7200	
Total	100.0000	<u>100.0000</u>

UNIT OPERATING AGREEMENT
COOPERATIONAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 17</u>		
<u>Working Interest Owners</u>		
Atlantic Richfield Company	50.0000	
Richardson, Sarah B., Individually and as Trustee U/W/O Jack Richardson	50.0000	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
None	N/A	
<u>Royalty Owners</u>		
Atlantic Richfield Company	22.2200	
Billy Dunn	14.1700	
Haskell J. Dunn	10.0000	
Ralph S. Dunn	10.0000	
Fluor Corporation	11.1100	
Annie Ford	14.1700	
Ima Hays	00.9300	
G. M. Jenkins	00.9300	
North Central Oil Corporation	04.1600	
Roger B. Owings	01.3900	
Sharon Dunn Riley	00.8300	
Mona Dunn Shofner, Aux. Adm. of Estate of Walker A. Dunn, Dec'd	08.3300	
Annabel Winningham	00.9300	
Suspense (Walker A. Dunn, Jr.)	00.8300	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 18</u>		
<u>Working Interest Owners</u>		
Reserve Oil and Gas Company	50.0000	
Atlantic Richfield Company	50.0000	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Scope Industries	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Harry Arledge	00.7800	
S. M. Aronson	02.5000	
Fluor Corporation	12.5000	
Alfred E. Gutman	08.9100	
Daniel L. Gutman	08.9100	
Mrs. Dorothy Gutman, Trustee	04.4500	
Dorothy Gutman	08.9100	
Daniel Gutman, Trustee of Estate of Max Gutman	26.7200	
Betty Gutman Gutttag	13.3600	
Mrs. Tina Levine, Dec'd. (Jule Levine Daniels, Executrix)	01.5600	
(Cont'd.)		

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 18 (Cont'd.)</u>		
Scope Industries	01.2500	
Atlantic Richfield Company	01.2500	
Edith G. Socolow	08.9000	
Total	<u>100.0000</u>	<u>100.0000</u>
<u>TRACT NO. 19</u>		
<u>Working Interest Owners</u>		
Petroleum Corporation of Texas	50.0000	
Reserve Oil and Gas Company	50.0000	
Total	<u>100.0000</u>	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Humble Oil and Refining Company	83.3333	
Scope Industries	16.6667	
Total	<u>100.0000</u>	<u>100.0000</u>
<u>Royalty Owners</u>		
Charles F. Bedford	00.0600	
Edwin M. Bedford	00.0600	
Henry D. Bedford	00.0600	
Rachel Bedford Bowen	00.0600	
Mrs. Walter M. Burress	01.5600	
Buttram Texhoma Co.	08.6100	
Gonzales Royalties, Inc.	02.3400	
George V. Holmes, Trustee	03.2400	
Lasca Inc.	02.0000	
Lexington Oil Company	02.2300	
J. M. Richardson Lyeth, Jr. and Monro Longyear Lyeth, Joint Tenants	02.9700	
James R. Lyttle, Executor U/W/O Mary Duke Pearlbrook	00.7900	
Ida D. Miller	00.0900	
Helen D. Pearlbrook	00.8800	
Petroleum Corporation of Texas	01.6700	
John J. Reynolds	10.5000	
Oncz Norman Rooney	02.9700	
Elaine Newby Shepherd, Ind. & as Atty.	00.5800	
Southern Minerals Corporation	03.3300	
Sparks Healey Company	01.2500	
E. M. Sweeney	01.5600	
Ellen Anne Williams	00.0600	
Atlantic Richfield Company	28.1300	
Cities Service Oil Company	25.0000	
Total	<u>100.0000</u>	<u>100.0000</u>
<u>TRACT NO. 20</u>		
<u>Working Interest Owners</u>		
Humble Oil and Refining Company	100.0000	<u>100.0000</u>

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 20 (Cont'd.)</u>		
<u>Overriding Royalty Owners</u>		
None	N/A	
<u>Royalty Owners</u>		
Cities Service Oil Company	20.8300	
Mary J. Dotson	00.7800	
Foster Petroleum Corporation	04.1700	
General Crude Oil Company	18.7500	
Mobil Oil Corporation	12.5000	
Scope Industries	18.7500	
Adele Irvine Sowell, Individually and as Independent Executrix of the Estate of R. H. Sowell, Dec'd.	06.2500	
June D. Speight	02.3500	
The First National Bank for Deposit to Account of Howard M. Wilson	01.5600	
M. Elizabeth Wilson	01.5600	
Atlantic Richfield Company	12.5000	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 21</u>		
<u>Working Interest Owners</u>		
Reserve Oil and Gas Company	50.0000	
Tenneco Oil Company	25.0000	
Margaret Strain Mallard	06.2500	
Clara Margaret Strain	12.5000	
Charles Hunter Strain	06.2500	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Humble Oil and Refining Company	55.1735	
Scope Industries	44.8275	
Total	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Atlantic Richfield Company	12.5000	
Cities Service Oil Company	20.8300	
Mary J. Dotson	00.7800	
Foster Petroleum Corporation	04.1700	
General Crude Oil Company	18.7500	
Mobil Oil Corporation	12.5000	
Scope Industries	18.7500	
Mrs. Adele Irvine Sowell	06.2500	
June D. Speight	02.3500	
Howard M. Wilson	01.5600	
M. Elizabeth Wilson	01.5600	
Total	100.0000	<u>100.0000</u>

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 22</u>		
<u>Working Interest Owners</u>		
Reserve Oil and Gas Company	50.0000	
Texas Pacific Oil Company, Inc.	50.0000	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Scope Industries	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Theodore Low Company, Inc.	100.0000	<u>100.0000</u>
<u>TRACT NO. 23</u>		
<u>Working Interest Owners</u>		
Texas Pacific Oil Company, Inc.	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Atlantic Richfield Company	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Theodore Low Company, Inc.	100.0000	<u>100.0000</u>
<u>TRACT NO. 24</u>		
<u>Working Interest Owners</u>		
Humble Oil and Refining Company	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
None	N/A	
<u>Royalty Owners</u>		
Fern Cone	01.5600	
Gordon M. Cone	01.4300	
Mary J. Dotson	00.7800	
General Crude Oil Company	18.7500	
Sue Saunders Graham	01.0400	
Martha Watkins Harris	00.5200	
Mrs. Clyde Miller	00.5200	
Mobil Oil Corporation	12.5000	
Elyse Saunders Patterson	01.0400	
Southern Petroleum Exploration, Inc.	03.1200	
Adele Irvine Sowell, Individual and as Independent Executrix of the Estate of R. H. Sowell, Dec'd.	06.2500	
June D. Speight	02.3500	
Ada E. Thomas	28.1300	
(Cont'd.)		

UNIT OPERATING AGREEMENT
COOPER JAIL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 24 (Cont'd.)</u>		
Sally Saunders Toles	01.0400	
Myrtis Dean Watkins	00.5200	
Hattie C. Williams	03.0000	
J. H. Williams	00.2600	
Elizabeth Woolworth	02.0800	
May Woolworth	02.6100	
Atlantic Richfield Company	12.5000	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 25</u>		
<u>Working Interest Owners</u>		
Petroleum Corporation of Texas	50.0000	
Reserve Oil and Gas Company	50.0000	
Total	100.0000	<u>100.0000</u>
<u>Overriding Royalty Owners</u>		
Humble Oil and Refining Company	83.3333	
Scope Industries	16.6667	
Total	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Fern Cone	01.5600	
Gordon M. Cone	01.4300	
Hattie C. Williams	03.0000	
June D. Speight	02.3500	
General Crude Oil Company	18.7500	
Southern Petroleum Exploration, Inc.	03.1200	
Ada E. Thomas	28.1300	
Elizabeth Woolworth	02.0800	
May Woolworth	02.6100	
Atlantic Richfield Company	12.5000	
Elyse Saunders Patterson	01.0400	
Sue Saunders Graham	01.0400	
Sally Saunders Toles	01.0400	
J. H. Williams	00.2600	
Myrtis Dean Watkins	00.5200	
Mrs. C. W. Miller	00.5200	
Mrs. Martha W. Harris	00.5200	
Mary J. Dotson	00.7800	
Mobil Oil Company	12.5000	
Mrs. Adele Irvine Sowell	06.2500	
Total	100.0000	<u>100.0000</u>
<u>TRACT NO. 26</u>		
<u>Working Interest Owners</u>		
Reserve Oil and Gas Company	50.0000	
Texas Pacific Oil Company, Inc.	32.8130	
Adele Irvine Sowell	07.1870	
George Bauerdorf Estate	10.0000	
Total	100.0000	<u>100.0000</u>

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

Interest/Royalty Owners	Tract Ownership %	% of Unit Signed
<u>TRACT NO. 26 (Cont'd.)</u>		
<u>Overriding Royalty Owners</u>		
Scope Industries	100.0000	<u>100.0000</u>
<u>Royalty Owners</u>		
Atlantic Richfield Company	07.7700	
General Crude Oil Company	15.5500	
Mobil Oil Corporation	31.1000	
M. M. Miller	01.4600	
Lydia Quilter	03.8900	
Adele Irvine Sowell	04.4700	
Atlantic Richfield Company	35.7600	
Total	<u>100.0000</u>	<u>100.0000</u>
<u>TRACT NO. 27</u>		
<u>Working Interest Owners</u>		
Johnny French	25.0000	
Tillie French	25.0000	
L. A. Johnson	50.0000	
Total	<u>100.0000</u>	<u>-0-</u>
<u>Overriding Royalty Owners</u>		
None	N/A	
<u>Royalty Owners</u>		
Midwest Oil Corporation	25.0000	
L. L. Horne Estate	02.6000	
Atlantic Richfield Company	12.5000	
General Crude Oil Company	12.5000	
Maude E. Soward	01.5600	
May Woolworth	01.7400	
Elizabeth Woolworth	01.3900	
Myrtis Dean Watkins	00.3500	
Martha W. Harris	00.3500	
Clyde W. Miller	00.3500	
Ethel McCabe Trevitt	04.1700	
Gonzales Royalties, Inc.	01.2500	
Livingston Oil Company	01.1900	
George V. Holmes, Trustee	01.7300	
Socony Mobil	12.5000	
Iris Goldston	10.4100	
Iris Goldston and Houston Bank and Trust Company as Co-Trustees U/W/O W. L. Goldston, Dec'd.	<u>10.4100</u>	
Total	<u>100.0000</u>	<u>45.8500</u>

JOEL M. CARSON

LAW OFFICES
A. J. LOSEE
CARPER BUILDING - P. O. DRAWER 239
ARTESIA, NEW MEXICO 88210

AREA CODE 505
746-3508

9 October 1970

70 OCT 13 AM 8 21

4402

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

Re: Cooper Jal Unit Agreement, Lea County, New Mexico
Our File 18-007-001

Gentlemen:

The Cooper Jal Unit Agreement was approved by the United States Geological Survey on September 29, 1970, and was designated as their No. 14-08-0001-11584. Enclosed, you will please find a xerox copy of the certificate of such approval.

Also enclosed, you will please find xerox copy of the Certificate as to Effective Date reflecting that pursuant to the provisions of Article 22, the Unit Agreement became effective as of 7:00 A.M., October 1, 1970. This certificate was filed on October 1, 1970, in Book 292 at Page 707 of the Miscellaneous Records of Lea County.

Very truly yours,

A. J. Losee
A. J. Losee

AJL:jw
Enclosures

cc: Mr. John Pingree

JOEL M. CARSON

LAW OFFICES
A. J. LOSEE
CARPER BUILDING - P. O. DRAWER 239
ARTESIA, NEW MEXICO 88210

AREA CODE 505
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Also enclosed, you will please find xerox copy of the Certificate as to Effective Date reflecting that pursuant to the provisions of Article 22, the Unit Agreement became effective as of 7:00 A.M., October 1, 1970. This certificate was filed on October 1, 1970, in Book 292 at Page 707 of the Miscellaneous Records of Lea County.

Very truly yours,



A. J. Losee

AJL:jw
Enclosures

cc: Mr. John Pingree

OCT 13 AM 8 21

CERTIFICATE AS TO EFFECTIVE DATE
OF COOPER JAL UNIT AGREEMENT
LEA COUNTY, NEW MEXICO

RESERVE OIL AND GAS COMPANY, Unit Operator under the Unit Agreement for the development and operation of the Cooper Jal Unit Area, Lea County, New Mexico, hereby certifies:

1. The Unit Agreement and the Unit Operating Agreement have been executed or ratified by Working Interest Owners owning Tracts with a combined Phase I unit participation of at least 85% and the Unit Agreement has been executed or ratified by Royalty Owners owning Tracts with a combined Phase I unit participation of at least 65% of the royalty interest in the Unit Area.
2. The Unit Agreement was approved by the New Mexico Oil Conservation Commission on August 25, 1970, by its Order No. R-4018 in Case No. 4402.
3. The Unit Agreement was approved by the Regional Oil and Gas Supervisor for the United States Geological Survey on September 29, 1970, as Contract No. 14-08.0001-11584.
4. A counterpart of the Unit Agreement has been recorded in Book 292 at Page 352 of the Miscellaneous Records of Lea County, New Mexico.
5. Pursuant to the provisions of Article XXII, the Cooper Jal Unit Agreement became effective as of 7:00 A.M. on October 1, 1970.
6. All of the Tracts as shown on the original Exhibit "B" have qualified under the provisions of Article XIV of the Unit Agreement except Tract No. 27 which was not qualified for participation on the Effective Date of the Unit Agreement.

DATED this 1st day of October, 1970.

RESERVE OIL AND GAS COMPANY

By: John M. Perrod JH
90
Attorney-in-Fact

STATE OF TEXAS)
COUNTY OF DALLAS) ss.

The foregoing instrument was acknowledged before me this 1st day of October, 1970, by John M. Perrod, Attorney-in-Fact for RESERVE OIL AND GAS COMPANY, a corporation, on behalf of said corporation.

My commission expires: June 1, 1971

Marjorie Lutz
Notary Public

STATE OF NEW MEXICO
COUNTY OF LEA
FILED

OCT 1 1970

at 8:00 o'clock PM
and Recorded in Book 292
Page 707
EFFIE HEDGEMAN, County Clerk
By J. C. B. Deputy

44341

CERTIFICATION - DETERMINATION

Pursuant to the authority vested in the Secretary of Interior as to Federal Lands, under the Act approved February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. Secs. 181, et seq., and delegated to the Oil and Gas Supervisor of the Geological Survey (33 F.R. 5812) I do hereby

- A. Approve the attached agreement for the development and operation of the Cooper Jal Unit, Lea County, New Mexico.
- B. Certify and determine that the unit plan of development and operation contemplated in the attached agreement is necessary and advisable in the public interest for the purpose of more properly conserving the natural resources.
- C. Certify and determine that the drilling, producing, rental, minimum royalty and royalty requirements of all Federal Leases committed to said agreement are hereby established, altered, changed, or revoked to conform with the terms and conditions of this agreement.

September 29, 1970

Dated

Acting

Paul C. Tomlinson
Regional Oil and Gas Supervisor,
UNITED STATES GEOLOGICAL SURVEY

Contract Number

14-00-0001-11584

Cities Thomas #1
Complete Wire file

8/21/80

~~7-15-80~~ cancelled - see R-2240

Cities Service Co. 19-245-37 Thomas R-6

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

NOTICE OF INTENTION TO DRILL

Notice must be given to the Oil Conservation Commission or its proper agent and approval obtained before drilling begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

Hobbs, New Mexico

August 18, 1950

Place

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico,

Gentlemen:

You are hereby notified that it is our intention to commence the drilling of a well to be known as

Cities Service Oil Company

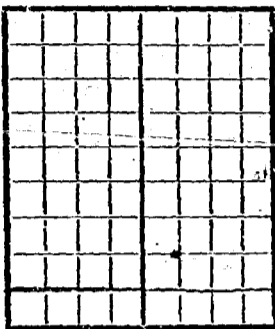
Thomas

Well No. 1 in C SW SE

Company or Operator

Lease

of Sec. 19, T 24S, R 37E, N. M., P. M., Langlie-Mattix, Lea County.



AREA 640 ACRES

LOCATE WELL CORRECTLY

The well is 660' feet (N.) (S.) of the South line and 1980' feet (E.) (W.) of the East line of Sec. 19-24S-37E

(Give location from section or other legal subdivision lines. Cross out wrong directions.)

If state land the oil and gas lease is No. --- Assignment No. ---

If patented land the owner is Mrs. Ada E. Thomas

Address Jal, New Mexico

If government land the permittee is ---

Address ---

The lessee is Cities Service Oil Company

Address Bartlesville, Oklahoma

We propose to drill well with drilling equipment as follows: Rotary all the way

The status of a bond for this well in conformance with Rule 39 of the General Rules and Regulations of the Commission is as follows: Approved

We propose to use the following strings of casing and to land or cement them as indicated:

Size of Hole	Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented	Sacks Cement
11-1/4"	8-5/8"	24#	New	1200'	Cemented	600
7-7/8"	5-1/2"	14#	New	3600'	Cemented	900

If changes in the above plan become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 3600' feet.

Additional information:

Approved

AUG 1 1950

19

except as follows:

Return to the surface on 8 5/8" casing

OIL CONSERVATION COMMISSION,

By

Title

Oil & Gas Inspector

Sincerely yours,

Cities Service Oil Company

Company or Operator

By

Position District Superintendent

Send communications regarding well to

Name R. W. Ely

Address Drawer "G", Hobbs, New Mexico

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

MISCELLANEOUS NOTICES

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF	<input checked="" type="checkbox"/>	NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico

September 2, 1950

Place

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the

Cities Service Oil Company Thomas Well No. 1 in C SW SE
Company or Operator Lease
of Sec. 19, T. 24S, R. 37E, N. M. P. M., Langlie-Mattix Field.
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

Total depth 1163' anhydrite. Ran 37½ jts (1150.63') of 8-5/8" OD 24# 8 R thd. casing set at 1162.06' and cemented with 625 sax. Plug down 3:25 AM 9-2-50. Cement circulated. Cement will be allowed to set 24 hours before testing for shut-off.

Approved SEP 8 - 1950, 19____
except as follows:

OIL CONSERVATION COMMISSION,
By [Signature]
Title Oil & Gas Inspector

Cities Service Oil Company

Company or Operator

By [Signature]Position District Superintendent
Send communications regarding well toName R. W. ElyAddress Drawer G.Hobbs, New Mexico

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
MISCELLANEOUS NOTICES

RECEIVED
OCT - 4 1950
OIL CONSERVATION COMMISSION
HOBBS-OFFICE

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF		NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	X
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico

September 25, 1950

Place

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the

Cities Service Oil Company Thomas Well No. 1 in C SW SE
Company or Operator Lease
of Sec. 19, T. 24S, R. 37E, N. M. P. M., Langlie-Mattix Field.
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK
FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

Total depth 3351' lime. It is planned to acidize this well with 5000 gallons of acid from 3025' to 3215' in an attempt to open up a tight lime formation for possible oil or gas production.

Approved _____, 19____
except as follows:

Cities Service Oil Company
Company or Operator

By _____

Position District Superintendent
Send communications regarding well to

Name R. W. Ely

Address Drawer G., Hobbs, New Mexico

OIL CONSERVATION COMMISSION,
By Ray J. [Signature]
Oil & Gas Inspector
Title APPROVED

Date OCT - 4 1950

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

MISCELLANEOUS NOTICES

RECEIVED
SEP 22 1950
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF	X	NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico

September 20, 1950

Place

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the

Cities Service Oil Company Thomas Well No. 1 in
Company or Operator Lease
of Sec. 19, T. 24S, R. 37E, N. M. P. M., Langlie-Mattix Field.
County.

FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

Total depth 3351' lime. Ran 11-1/8 jts of 5-1/2" casing 3347.30' set at 3351' and cemented with 200 sax. Plug down 12:40 P.M. 9-19-50. Cement will be allowed to set 48 hours before testing for shut-off.

Approved SEP 22 1950, 19
except as follows:

OIL CONSERVATION COMMISSION
By Ray Zuckerman
Title Gen. Inspector

Cities Service Oil Company
Company or Operator
By [Signature]
Position District Superintendent
Send communications regarding well to
Name R. W. Ely
Address Drawer G., Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION 11 1950
SANTA FE, NEW MEXICO

MISCELLANEOUS NOTICES

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF		NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	X
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico

October 5, 1950

Place

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the

Cities Service Oil Company

Thomas

Well No. 1

in

C SW SE

Company or Operator

Lease

of Sec

19

T.

24S

R.

37E

N. M. P. M.,

Langlie-Mattix

Field.

Lea

County.

FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

This well was drilled to a total depth of 3663' and P.B. to a total depth of 3440' with cement. Casing has been set and cemented at 3551' and it is intended to acidize the open hole below the casing with 5000 gallons of acid.

Approved OCT 11 1950, 19

except as follows:

OIL CONSERVATION COMMISSION,

By

Title

Engineer District 1

Cities Service Oil Company

Company or Operator

By

Position

District Superintendent

Send communications regarding well to

Name

R. W. Ely

Address

Drawer G

Hobbs, New Mexico

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

MISCELLANEOUS NOTICES

 RECEIVED
 OCT 13 1950
 OIL CONSERVATION COMMISSION
 HOBBS OFFICE

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF		NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	X
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico

October 6, 1950

Place

Date

OIL CONSERVATION COMMISSION,
 Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the

Cities Service Oil Company

Thomas

Well No. 1

in C SW SE

Company or Operator

Lease

of Sec. 19

T. 24S

R. 37E

N. M. P. M.,

Langlie-Mattix

Field.

County.

FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

This well was drilled to a total depth of 3663' and plugged back to 3440' with cement. Casing has been set and cemented at 3351' and it is intended to acidize above 3270' with 1000 gallons of acid to clean up mudded off gas section.

Approved OCT 17 1950, 19
 except as follows:

Cities Service Oil Company

Company or Operator

By

Position

District Superintendent

Send communications regarding well to

Name

R. W. Ely

Address

Drawer G., Hobbs, New Mexico

Engineer District 1

OIL CONSERVATION COMMISSION,

By

Title

Engineer District 1

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

MISCELLANEOUS NOTICES
RECEIVED
 OCT 16 1950
 OIL CONSERVATION COMMISSION
 HOBBS OFFICE

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

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NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico

October 6, 1950

Place

Date

OIL CONSERVATION COMMISSION,
 Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the

Cities Service Oil Company Thomas Well No. 1 in C SW SE
 Company or Operator Lease
 of Sec. 19, T. 24S, R. 37E, N. M. P. M., Langlie-Mattix Field.
 County.

FULL DETAILS OF PROPOSED PLAN OF WORK**FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION**

This well was drilled to a total depth of 3663' and plugged back to 3440' with cement. Casing has been set and cemented at 3351' and it is intended to acidize above 3270' with 1000 gallons of acid to clean up mudded off gas section.

Approved OCT 17 1950, 19
 except as follows:

OIL CONSERVATION COMMISSION,

By [Signature]
 Title Engineer District 1

Cities Service Oil Company

Company or Operator

By [Signature]

Position District Superintendent
 Send communications regarding well to

Name R. W. ElyAddress Drawer G., Hobbs, New MexicoEngineer District 1

NEW MEXICO SCHOOL OF MINES
STATE BUREAU OF MINES AND MINERAL TECHNOLOGY
Socorro, New Mexico

WELL LOG DIVISIONCASING RECORD

<u>Pipe in Bottom</u>	<u>ELEVATION</u>	<u>FEET</u>
8-3/8	1150	Open
5-1/2	3351	Open
		Tbg.
		Tbg.

INITIAL DAILY PRODUCTION:

Open 1168 M. bbls. Oil

Open 1168 M. cu.ft. Gas

Tbg. bbls. Oil

Tbg. cu.ft. Gas

COUNTY Lea

FIELD Langlie-Mattix

COMPANY Cities Service Oil Company

LEASE Thomas, Well No. 1

LOCATION (4) SW SE

SEC. 19 T. 24S R. 37E

660 feet from south line and

1980 feet from east line of Sec. 19

COMMENCED 8-3-50

COMPLETED 10-9-50

ABANDONED

REMARKS: Rotary tools used: 0-3663

<u>FORMATION</u>	<u>BOTTOM, FEET</u>	<u>FORMATION</u>	<u>BOTTOM, FEET</u>
------------------	---------------------	------------------	---------------------

Surface	37
Red bed and sand	313
Red bed and shale	460
Shale, sand and red rock	880
Red rock and sand rock	945
Red rock and shale	1039
Red rock	1140
Anhydrite	1248
Salt anhydrite, red bed strks.	1982
Salt and anhydrite	2761
Anhydrite	2791
Anhydrite and lime	2823
Anhydrite	2863
Anhydrite and lime	2906
Lime	2953
Sand	2987
Lime	3077
Lime, shells and gypsum sand	3095
Lime	3270
Lime, anhydrite, sand strks.	3297
Lime	3321
Lime and gypsum streaks	3351
Lime	3393
Sandy lime (soft)	3407
Lime	3413
Sand and lime	3498
Lime	3530
Lime and sand (soft)	3541
Lime	3557
Lime sand and shell strks.	3591
Hard lime	3595
Lime	3663 T.D.

GEOLOGIC TOPS

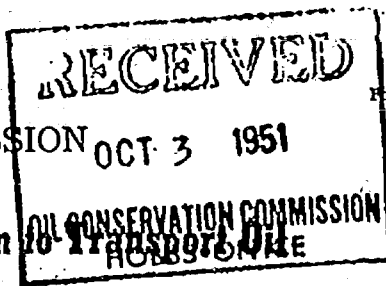
T. Anhydrite	1148
T. Yates	2945
T. Brown Lime	2846

ACID TREATMENT

5000 gals.	3025-3215,	9-25-50
5000 gals.	3336-3346,	10-6-50
1000 gals.	3351-3370,	10-7-50

ORIGINAL

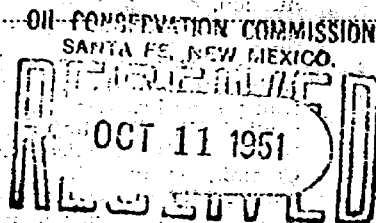
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO



Form C-110

Certificate of Compliance and Authorization

Company or Operator..... Cities Service Oil Company..... Lease..... Thomas
Address..... Hobbs, New Mexico..... Bartlesville, Oklahoma
(Local or Field Office)..... (Principal Place of Business)
Unit 0..... Wells No. 1..... Sec. 19..... T. 24S R. 37E Field..... Langlie-Mattix..... County..... Lea
Kind of Lease..... Patented..... Location of Tanks..... On lease
Transporter..... El Paso Natural Gas Company..... Address of Transporter..... Jal, New Mexico
(Principal Place of Business)..... (Local or Field Office)
El Paso, Texas..... GAS
Percent of oil to be transported..... 100..... Other transporters author-
ized to transport GAS from this unit are..... None
REMARKS:



The undersigned certifies that the rules and regulations of the Oil Conservation Commission have been complied with except as noted above and that gathering agent is authorized to transport the percentage of oil produced from the above described property and that this authorization will be valid until further notice to the transporter named herein or until cancelled by the Oil Conservation Commission of New Mexico.

Executed this the 2 nd day of October, 194 51

Cities Service Oil Company
(Company or Operator)

By.....
Title..... District Superintendent

State of..... New Mexico
County of..... Lea

Before me, the undersigned authority, on this day personally appeared R. W. Ely known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath, states that he is authorized to make this report and has knowledge of the facts stated herein and that said report is true and correct.

Subscribed and sworn to before me, this the 2 nd day of October, 194 51

Fred Lawson

Notary Public in and for Lea County, New Mexico

Approved:..... OCT - 14, 1945
OIL CONSERVATION COMMISSION

My commission expires Feb. 8, 1954

By.....
Oil & Gas Inspector
(See Instructions on Reverse Side)

Date first oil run to tanks or gas to pipe line: 10-14-51

Pipe line taking oil or gas: Cities Service Oil Co. - Trucks

Remarks: _____

Cities Service Oil Company

Company or Operator

By: _____

Signature

Position: Dist. Supt.

Send communications regarding well to:

Name: R. W. Ely

Address: Cities Service Oil Company
Box 97, Hobbs, New Mexico

APPROVED _____

11 - 7 - 1951

OIL CONSERVATION COMMISSION

By: _____

Title: _____

Oil & Gas Inspector

OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

ORIGINAL

REQUEST FOR (OIL)-(GAS) ALLOWABLE

RECEIVED

NOV 7 1951

It is necessary that this Form be submitted by the operator before ~~oil conservation commission~~ will be assigned to any completed oil or gas well. Form C-110 (Certificate of Completion, Insurance and Authorization to Transport Oil) will not be approved until Form C-104 is filed with the Commission. Form C-104 is to be submitted in triplicate to the office to which Form C-101 was sent. Two copies will be retained there and the other submitted to the Proration Office, Hobbs, New Mexico. The allowable will be assigned effective 7:00 a.m. on date of completion, provided completion report is filed during month of completion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15,025 P.B. at 60° Fahrenheit.

Hobbs, New Mexico

November 6, 1951

Place

Date

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Cities Service Oil Company Thomas Well No. 1 in SW 1/4 SE 1/4
Company or Operator Lease

section 19, T. 24S, R. 37E, N.M.P.M. Langlie-Mattix Pool Lea County

Please indicate location: Elevation 3270 DF Spudded 8-30-50 Completed 10-4-50

Total Depth 3663' P.B. 3440'

Top Oil/Gas Pay 3025' Top Water Pay -
Initial Production Test: Pump - Flow 3.34 (BOPD OR CU. FT. GAS PER DAY)

Based on 3.34 Bbls. Oil in 24 Hrs. -0- Mins.

Method of Test (Pitot, gauge, prover, meter run): Prover

Size of choke in inches 27/64"

Tubing (Size) 2" EUE @ 3434 Feet

Pressures: Tubing 560 Casing 580

Gas/Oil Ratio 287,000 Gravity 28.6

Casing Perforations:

3336 to 3346; 3070 to 3140' and 3025' to 3050'

Unit letter: 0

Casing & Cementing Record

Size	Feet	Sax
8-5/8"	1162.06'	625
5 1/2"	3351	200

Acid Record: Show of Oil, Gas and water

6000 Gals - to - S/

- Gals - to - S/

- Gals - to - S/

Shooting Record. S/

- Qts - to - S/

- Qts - to - S/

- Qts - to - S/

Natural Production Test: - Pumping - Flowing

Test after acid or shot: - Pumping 3.34 Flowing

Please indicate below Formation Tops (in conformance with geographical section of state):

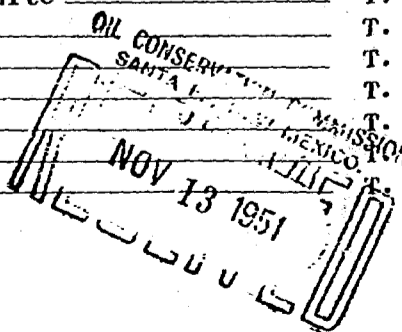
Southeastern New Mexico

Northwestern New Mexico

T. Anhy 1148'
T. Salt
B. Salt Brown Lime 2845'
T. Yates 2944'
T. 7 Rivers
T. Queen
T. Grayburg
T. San Andres
T. Glorieta
T. Drinkard
T. Tubbs
T. Abo
T. Penn
T. Miss

T. Devonian
T. Silurian
T. Montoya
T. Simpson
T. McKee
T. Ellenburger
T. Gr. Wash
T. Granite
T.
T.
T.
T.
T.

T. Ojo Alamo
T. Kirtland-Fruitland
T. Farmington
T. Pictured Cliffs
T. Cliff House
T. Menefee
T. Point Lookout
T. Mancos
T. Dakota
T. Morrison
T. Penn



(Please supply required information on reverse side of form)

It is necessary that Form C-104 be approved before this form can be approved and completed oil or gas well.

ORIGINAL

RECEIVED

NEW MEXICO OIL CONSERVATION COMMISSION NOV 7 1951

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL

Company or Operator.....Cities-Service Oil.....Lease.....Thomas

Address.....Box 97, Hobbs, New Mexico.....Bartlesville, Oklahoma.....
(Local or Field Office).....(Principal Place of Business)

Unit.....0.....Wells No.....1.....Sec.....19.....T24S P.37E Pool Langlie-Mattix.....County.....Lea

Kind of Lease.....Oil.....Location of Tanks.....On Lease

Transporter.....Cities-Service Oil Co.- Trucks.....Address of Transporter.....Midland, Texas.....
(Local or Field Office)

.....Bartlesville, Oklahoma.....Percent of oil to be transported.....100.....Other transporters authorized
(Principal Place of Business)

to transport oil from this unit are.....None.....-0-.....%

REMARKS:

NOV 13 1951

The undersigned certifies that the rules and regulations of the Oil Conservation Commission have been complied with except as noted above and that gathering agent is authorized to transport the percentage of oil produced from the above described property and that this authorization will be valid until further notice to the transporter named herein or until cancelled by the Oil Conservation Commission of New Mexico.

Executed this the 6 th day of November, 1951

Cities Service Oil Company

(Company or Operator

By

Title District Superintendent

Approved:.....11-7-1951.....

OIL CONSERVATION COMMISSION

By.

Oil & Gas Inspector

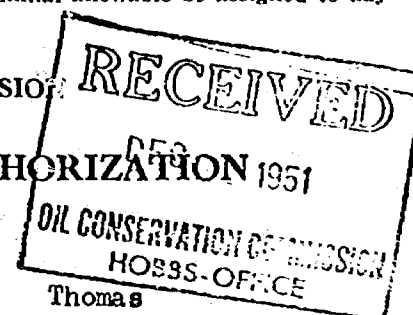
(See Instructions on Reverse Side)

It is necessary that Form C-104 be approved before this form can be approved and an initial allowable be assigned to any completed oil or gas well.

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION 1951 TO TRANSPORT OIL



Company or Operator Cities Service Oil Lease Thomas
 Address Box 97, Hobbs, New Mexico Bartlesville, Oklahoma
(Local or Field Office) (Principal Place of Business)
 Unit 0 Wells No. 1 Sec. 19 T. 24S R. 37E Pool Langlie-Mattix County Lea
 Kind of Lease Oil Location of Tanks On Lease
 Transporter Texas-New Mexico Pipeline Co. Address of Transporter Midland, Texas
(Local or Field Office)
Houston, Texas Percent of oil to be transported 100 Other transporters authorized
(Principal Place of Business)
 to transport oil from this unit are None -0- %

REMARKS:

This oil is to be hauled by Cities Service Oil Company-Trucks from the Thomas Lease to a tank on the Owen Lease, Section 35-21S-R37E, Lea County, New Mexico. The oil will then be transported by the Texas-New Mexico Pipeline Company.

"Certificate of Compliance and Authorization to Transport Oil" by Cities Service Oil Company-Trucks has been approved. We desire this certificate to be approved so that the Texas-New Mexico Pipeline Company will be authorized to move the oil.

The undersigned certifies that the rules and regulations of the Oil Conservation Commission have been complied with except as noted above and that gathering agent is authorized to transport the percentage of oil produced from the above described property and that this authorization will be valid until further notice to the transporter named herein or until cancelled by the Oil Conservation Commission of New Mexico.

Executed this the 20th day of December, 1951.

Cities Service Oil Company
(Company or Operator)

By [Signature]
 Title District Superintendent

Approved: 12 - 21, 1951.

OIL CONSERVATION COMMISSION

By [Signature]

Oil & Gas Inspector

(See Instructions on Reverse Side)

ORIGINAL NEW
CERTIFICATE

ION RECEIVER

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED

Company or Operator..... Cities Service Oil Company..... Lease..... Thomas
Address..... Box 97, Hobbs, New Mexico..... Empire-Masonic Building
(Local or Field Office)..... Bartlesville, Oklahoma.....
(Principal Place of Business)
Unit..... Wells No. 1 & 2 Sec. 19 T. 24S R. 37E Pool Langlie-Mattix..... County..... Lea
Kind of Lease..... Patented..... Location of Tanks..... On Lease
Transporter..... Cities Service Oil Company..... Address of Transporter..... Box 97, Hobbs, New Mexico
(Local or Field Office)
Bartlesville, Oklahoma..... 300 bbls. approximate
(Principal Place of Business)..... Percent of oil to be transported..... Other transporters authorized
to transport oil from this unit are..... Cities Service Oil Company..... 100..... %

It is proposed to transport approximately 300 bbls. of oil from the Thomas Lease to the Thomas "F" No. 1 to be used for drilling purposes. The March C-115's for the Thomas lease will reflect the amount of oil delivered to Thomas "F" No. 1. Thomas "F" No. 1 is located in the C SWSE of Section 17-24S-37E, Langlie-Mattix Pool, Lea County, New Mexico.

le-Matrix Pool, Lea Cou

The undersigned certifies that the rules and regulations of the Oil Conservation Commission have been complied with except as noted above and that gathering agent is authorized to transport the percentage of oil produced from the above described property and that this authorization will be valid until further notice to the transporter named herein or until cancelled by the Oil Conservation Commission of New Mexico.

Executed this the 25th day of March, 1952

.....Cities Service Oil Company.....
(Company or Operator)

By H. E. Massy

Title.....District Engineer.....

Approved: 3-28, 1952

OIL CONSERVATION COMMISSION

By W. C. Lankford

Oil & Gas Inspector

(See Instructions on Reverse Side)

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. BOX 2045

HOBBS, NEW MEXICO

May 8, 1955

TO:

Cities Service Oil Co.

Box 97

Hobbs, New Mexico

This is:

A New gas well ☐
An Oil well ~~converted to~~ ^{reclassified} gas ☐ High GOR
An Oil-Gas dual ☐
A Gas-Gas dual ☐

Gentlemen:

110

Form C-~~XXX~~ has been received on your Thomas #1-0 19-24-37
Lease and Well No. S.T.R.

1. And a 160 acre allowable will be assigned in the Jalmat

Pool under NSP Order No. 112.

2. No gas allowable can be assigned this well for the following reasons:

- () Unorthodox location (Order R-520 Rule 3)
() Non-standard proration unit (Order R-520 Rule 5)

OIL CONSERVATION COMMISSION

S. G. Stanley
S. G. Stanley

hs

cc/ Transporter EP

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

It is necessary that Form C-104 be approved before this form can be approved and an initial allowable be assigned to any completed Oil or Gas well. Submit this form in QUADRUPPLICATE.

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND/NATURAL/GAS/

Company or Operator Cities Service Oil Company Lease Thomas
Cities Service Bldg.
Address Box 97, Hobbs, New Mexico Bartlesville, Oklahoma
(Local or Field Office) (Principal Place of Business)
Unit Q, Well(s) No. 1, Sec. 19, T. 24S, R. 37E, Pool Jalnat
County Lea Kind of Lease: Patented
If Oil well Location of Tanks On Lease
Authorized Transporter El Paso Natural Gas Company Address of Transporter
Jal, New Mexico El Paso, Texas
(Local or Field Office) (Principal Place of Business)
Per cent of ~~Oil~~ Natural Gas to be Transported 100 Other Transporters authorized to transport Oil or Natural Gas
from this unit are Cities Service Oil Co.-Trucks
Box 1221, Roswell, New Mexico Bartlesville, Oklahoma 100 %

REASON FOR FILING: (Please check proper box)

NEW WELL ☐ CHANGE IN OWNERSHIP ☐
CHANGE IN TRANSPORTER ☐ OTHER (Explain under Remarks) ☒

REMARKS: Change of pool name. Well will be classified as a gas well April 1, 1955.

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 30th day of March 1955.

Approved 1955, 1955

OIL CONSERVATION COMMISSION

By S. G. Stanley

Title Engineer

Cities Service Oil Company

By [Signature]

Title Dist. Supt.

(See Instructions on Reverse Side)

March 7, 1955

Cities Service Oil Co.

Box 97

Hobbs, New Mexico

GOR- 344,000
Date- 3-20-54

Gentlemen:

A review of the records for your Thomas 1 19-24-37
Lease Well No. S.T.R.
in the Langlie Mattix Pool, which is listed in the Oil Proration Schedule
with a Gas Oil Ratio in excess of 100,000-1, indicates that this well should
be re-classified as a gas well in the Jalmat Pool. It is our
intention, therefore, to remove this well from the Oil Proration Schedule, effective
April 30th, 1955 and in order that there may be no delay in its being assigned an
allowable on the gas proration schedule, you are hereby instructed to make
application to the Director of the Oil Conservation Commission in Santa Fe for a
non-standard gas proration unit. Upon receipt of an NSP Order you will please
file with this office Form C-110 in quadruplicate showing the change in pool name
and a gas well plat in duplicate showing the acreage dedicated to this well.

This matter should be given your very prompt attention so that there may be
no lapse of time in the transfer of the well from the Oil Schedule to the Gas
Schedule.

Yours very truly,

OIL CONSERVATION COMMISSION

L. G. Stanley

ALP/he

Copy: OCC-Santa Fe.
Transporter

DISTRIBUTION	
AMT A FE	
ILE	
S.G.S.	
AND OFFICE	
TRANSPORTER	OIL
	GAS
OPERATOR	
PRODUCTION OFFICE	

NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
 Supersedes Old C-104 and C-105
 Effective 1-1-65

I. OPERATOR
 Operator Cities Service Company
 Address P.O. Box 1919 - Midland, Texas 79702
 Reason(s) for filing (Check proper box)
 New Well ☐ Change in Transporter of: Oil ☐ Dry Gas ☐
 Recompletion ☐ Casinghead Gas ☐ Condensate ☐
 Change in Ownership ☒ Other (Please explain) Change of operator's name is effective July 1, 1977.

If change of ownership give name and address of previous owner Cities Service Oil Company - P.O. Box 1919 - Midland, Texas 79702

II. DESCRIPTION OF WELL AND LEASE

Lease Name <u>Thomas</u>	Well No. <u>1</u>	Pool Name, including Formation <u>Jalmat Tansill Yates 7Rivers</u>	Kind of Lease State, Federal or Fee <u>Fee</u>	Lease No. <u>---</u>
Location Unit Letter <u>O</u> : <u>660</u> Feet From The <u>South</u> Line and <u>1980</u> Feet From The <u>East</u> Line of Section <u>19</u> Township <u>24S</u> Range <u>37E</u> , NMPM, <u>1ea</u> County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> <u>Cities Service Company</u>	Address (Give address to which approved copy of this form is to be sent) <u>Box 1919 - Midland, Texas 79701</u>
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> <u>El Paso Natural Gas Company</u>	Address (Give address to which approved copy of this form is to be sent) <u>Box 1384 - JAL, New Mexico 88252</u>
If well produces oil or liquids, give location of tanks. Unit <u>O</u> Sec. <u>19</u> Twp. <u>24S</u> Rge. <u>37E</u>	Is gas actually connected? <u>yes</u> When <u>---</u>

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Stim. Resrv.	Diff. Res.
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RK?, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

E. Spiller
 (Signature)
Region Operations Manager
 (Title)
6/10/77
 (Date)

OIL CONSERVATION COMMISSION
JUL 15 1977
 APPROVED _____ 19____
 BY [Signature]
 TITLE SUPERVISOR DISTRICT 1

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each well in multiple.

OIL CONSERVATION COMMISSION

MAIL OFFICE OCC

BOX 2045

RECEIVED MAR 23 1956 3:30

HOBBS, NEW MEXICO

Cities Service Oil Co.
Box 97
Hobbs, New Mexico

Date March 19, 1956

Gentlemen:

An incidental oil allowable is currently being assigned to your

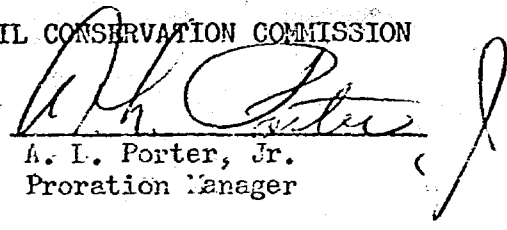
Thomas lease, Well No. 1-C, S.T.R.19-24-37, Pool Jalmat which is classified

as a gas well and currently listed in the gas proration schedule. Due to the fact that the definition of a gas well is determined by the Gas-Oil Ratio it is necessary for the Commission to have complete information in the file to support the status of the well.

With this in mind you are hereby directed to conduct a Gas-Oil Ratio Test on the above numbered well by April 10, 1956 date and submit the result of the test on form C-116 within 15 days of the date of the test. You are also requested to notify the Commission at least 24 hours prior to the beginning of the test period.

Yours very truly,

OIL CONSERVATION COMMISSION


A. L. Porter, Jr.
Proration Manager

Recovered 130' of fluid, 10' drilling fluid and 10' of black salt water. IFP 0#, FFP 25#, HUP 1025#, MCP 1650#.

DST #6: Tested 3212' to 3270' (58'). Tool open 1 hr. 10 min., 1" TC, 5/8" BC. Gas to surface in 1 min. sulphur water spray to surface in 20 min., good blow of gas with very fine spray of sulphur water throughout test. Gas volume 380 MCF/day rate. Recovered 90' black sulphur water. IFP 225#, FFP 225#, SIP 1005#, MCP 1650#.

DST #7: Tested 3363' to 3435' (72') 1" TC, 5/8" BC. Tool open 1 hr. 45 min. and closed 20 min. for BU. Gas to surface in 3 minutes. Unloaded mud in 9 min. and flow of gas at 1329 MCF. Gas was sour and dry. IFP 450#, FFP failed, SIP 625#, MCP 1475#.

DST #8: Tested 3435' to 3520' (85') 1" TC, 1/2" BC, gas to surface in 3 min. with 23.3 MCF gas flow throughout test. Recovered 330' in 2-7/8" DP (1.9 bbls) of oil and gas cut mud. No water. Tool open 1 hr and 25 minutes and SI 20 min. for BU, IFP 50#, FFP 50#, SIP 100# MCP 1500#.

DST #9: Tested 3520' to 3595' (75') 1" TC, 1/2" BC. Tool open 1 hr. 32 min. and closed 20 min. for BU. Faint blow air throughout test. Recovered 150' of drilling fluid slightly oil cut. IFP 0#, FFP 50#, HUP 50#, MCP 1500#.

DST #10: Tested 3594' to 3663' (69') 1" TC, 1/2" BC. Tool open 1 hr. 48 min and closed 20 min. for BU. Gas to surface in 9 minutes with very faint blow throughout test. Recovered 115' of drilling mud, slight gas cut and cut with sulphur water IFP 0#, FFP 0#, HUP 50#, MCP 1550#.

FORMATION RECORD

FROM	TO	THICKNESS IN FEET	FORMATION
0'	37'	37'	Surface
37'	313'	276'	Red bed and sand
313'	480'	167'	Red bed and shells
480'	880'	400'	Shale, sand and red rock
880'	945'	65'	Red rock and sand rock
945'	1039'	94'	Red rock and shale
1039'	1140'	101'	Red rock
1140'	1248'	108'	Anhydrite
1248'	1982'	734'	Salt anhy, red bed strks.
1982'	2761'	779'	Salt and anhy.
2761'	2791'	30'	Anhy
2791'	2823'	32'	Anhy and lime
2823'	2863'	40'	Anhy
2863'	2906'	43'	Anhy and lime
2906'	2953'	47'	Lime
2953'	2987'	34'	Sand
2987'	3077'	90'	Lime
3077'	3095'	18'	Lime, shells and gyp sand
3095'	3270'	175'	Lime
3270'	3297'	27'	Lime, anhy, sand strks
3297'	3321'	24'	Lime
3321'	3351'	30'	Lime and gyp strks.
3351'	3393'	42'	Lime
3393'	3407'	14'	Sandy lime (soft)
3407'	3413'	6'	Lime
3413'	3498'	85'	Sand and lime
3498'	3530'	32'	Lime
3530'	3541'	11'	Lime and sand (soft)
3541'	3557'	16'	Lime
3557'	3591'	34'	Lime sand and shell strks
3591'	3595'	4'	Hard lime
3595'	3663' TD	68'	Lime P.B. 3440'
			DST #1: Tested brown lime 2900' to 2950' (50'). Tool open 1 hr. 52 min. 1" TC, 5/8" BC. Had slight blow of air throughout test. IFP 0#, FFP 0#, BUP 0#, MCP 1275'. Recovered 25' drilling mud.
			DST #2: Tested 2921' to 3010' (89'). Tool open 1 hr. 30 min. 1" TC, 5/8" BC. Gas to surface in 2 min, spray of drilling fluid in 8 min. and steady blow gas 540 MCF per day rate. Recovered 170' salt water, trace of sulphur water. Titrated 184,000 PPM, IFP 525#, FFP 525#, SIP 875#, MCP 1450#.
			DST #3: Tested 3008' to 3052' (44')-1" TC, 5/8" BC, tool open 2 hrs. 20 min, and closed 15 min. for BU. Slight blow of air throughout test. Recovered 240' or 3.4 bbls of salt water. IFP & FFP XXXX failed. BUP 1250#, MCP 1650#.
			DST #4: Tested 3008' to 3095' (87') TC 1", 5/8" BC Tool open 2 hrs. and closed 15 min for BU, gas to surface 27 min., gas blow at 10 MCF/da rate throughout test. Recovered 60' drilling fluid. IFP 0#, FFP 0#, BUP 700#, MCP 1600#.
			DST #5: Tested 3137' to 3213' (76') tool open 1 hr. 35 min. 1" TC, 5/8" BC. Gas to surface in 2 min. Had steady blow of 162 MCF/da rate of gas flow throughout test. Recovered 130' of fluid, 10' drilling fluid and 120' of black salt water. IFP 0#, FFP 25#, BUP 1025#, MCP 1650#.
			DST #6: Tested 3212' to 3270' (58'). Tool open 1 hr. 10 min., 1" TC, 5/8" BC. Gas to surface in 1 min. sulphur water spray to surface in 20 min., good blow of gas with very fine spray of sulphur water throughout test. Gas volume 380 MCF/da rate. Recovered 90' black sulphur water. IFP 225#, FFP 225#, SIP 1005#, MCP 1650#.
			DST #7: Tested 3363' to 3435' (72') 1" TC, 5/8" BC. Tool open 1 hr. 45 min. and closed 20 min. for BU. Gas to surface in 3 minutes. Unloaded mud in 9 min. and flow of gas at 1329 MCF. Gas was sour and dry. IFP 450#, FFP failed, SIP 625#, MCP 1475#.
			DST #8: Tested 3435' to 3520' (85') 1" TC, 1/2" BC, gas to surface in 3 min. with 23.3 MCF gas flow through-

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHODS USED	MUD GRAVITY	AMOUNT OF MUD USED
11 1/4	8-5/8"	1162.06'	625	Plug		
7-7/8	5 1/2"	3351'	200	Plug		

PLUGS AND ADAPTERS

Heaving plug—Material..... Length..... Depth Set.....
 Adapters —Material..... Size.....

RECORD OF SHOOTING OR CHEMICAL TREATMENT

SIZE	SHELL USED	EXPLOSIVE OR CHEMICAL USED	QUANTITY	DATE	DEPTH SHOT OR TREATED	DEPTH CLEANED OUT
		Acid	5000	9-25-50	3025' to 3215'	
		Acid	5000	10-6-50	Open hole	
		Acid	1000	10-7-50	Above 3270'	

Results of shooting or chemical treatment..... Well tested 2439 MCF dry gas per day

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

TOOLS USED

Rotary tools were used from..... 0 feet to..... 3663' PB 3440' feet, and from..... feet to..... feet
 Cable tools were used from..... feet to..... feet, and from..... feet to..... feet

PRODUCTION

Put to producing....., 19.....
 The production of the first 24 hours was..... barrels of fluid of which.....% was oil;% emulsion;% water; and.....% sediment. Gravity, Be.....
 If gas well, cu. ft. per 24 hours..... 2439 MCF..... Gallons gasoline per 1,000 cu. ft. of gas.....
 Rock pressure, lbs. per sq. in.....

EMPLOYEES

....., Driller....., Driller
 , Driller....., Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this..... 13 th..... day of..... October....., 19..... 50

..... Fred Lawson.....
 Notary Public

My Commission expires..... Feb. 8, 1950

..... Hobbs, New Mexico..... 10-13-50.....
 Name.....
 Position..... District Superintendent.....
 Representing..... Cities Service Oil Company.....
 Company or Operator.....
 Address..... Drawer G., Hobbs, New Mexico.....

CHIEF OF POLICE COMMISSIONER
CITY OF NEW YORK - OFFICE

Santa Fe, New Mexico

WELL RECORD

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or its proper agent not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). **SUBMIT IN TRIPPLICATE. FORM C-110 WILL NOT BE APPROVED UNTIL FORM C-105 IS PROPERLY FILLED OUT.**

AREA 640 ACRES
LOCATE WELL CORRECTLY

Empire-Masonic Bldg, Bartlesville, Oklahoma

Company or Operator

Address :

Thomas

Well No. 1

in C SW SE

...of Sec. 19

T 248

Lean

R. 37E

N. M. P. M.

Langlie-Mattix

Field. Lea

County

Well is 660 feet South of the North line and 1980 feet west of the East line of Sec. 19-24S-37E

If State land the oil and gas lease is No. Assignment No.

Assignment No.

If patented land the owner is.....Mrs. Ada E. Thomas

Address..... Jal, New Mexico

If Government land the permittee is.

Address.

The Lessee is Cities Service Oil Company

Address Bartlesville, Oklahoma

Drilling commenced... Aug. 30.

8.50

Drilling was completed... Oct. 4

19 50

Name of drilling contractor,.....Permian Drilling Company.

Address Odessa, Texas

Elevation above sea level at top of casing.....3270.....feet.

The information given is to be kept confidential until

191

~~GE~~ SANDS OR ZONES

No. 1, from 3025 to 3440 No. 4, from - to -

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet.

No. 2, from _____ to _____ feet.

No. 3, from to feet.

No. 4, from to feet.

CASING RECORD

[illegible]

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

RECEIVED

NOV - 6 1951

OIL CONSERVATION COMMISSION

HOBBS OFFICE

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after work is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL		XXXXXX Gas Well Open Flow	X

November 5, 1951

Hobbs, New Mexico

Date

Place

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company

Thomas

1

Well No.

In the

Company or Operator

Lease

C SW SE

of Sec.

19

T.

24S

R.

37E

N. M. P. M.

Langlie-Mattix

Pool

Lea

County.

The dates of this work were as follows:

Notice of intention to do the work ~~was~~ (was not) submitted on Form C-102 on

19

and approval of the proposed plan ~~was~~ (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

The Annual Open Flow test on Thomas #1 was taken during October, 1951 and is given below:

Well

Date Taken

Gas Volume

Thomas #1

10-13-51

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
2093 MCF/day
NOV 9 1951

Witnessed by Fred G. Bernard

El Paso Natural Gas Company

Gas Engineer

Name

Company

Title

APPROVED:

OIL CONSERVATION COMMISSION

Not yetbraugh
Name

Oil & Gas Inspector

Title

NOV 6 1951

Date

19

I hereby swear or affirm that the information given above is true and correct.

Name

R. P. Hemphill

Position

Production Engineer

Representing

Cities Service Oil Company

Company or Operator

Address

Box 97, Hobbs, New Mexico

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL		Gas Well SI Pressure	X

November 2, 1951

Hobbs, New Mexico

Date

Place

Following is a report on the work done and the results obtained under the heading noted above at the.....

Cities Service Oil Company Thomas Well No. 1 in the
C SW SE Company or Operator Lease
of Sec. 19 T. 24S R. 37E, N. M. P. M.,
Langlie-Mattix Pool Lea County.

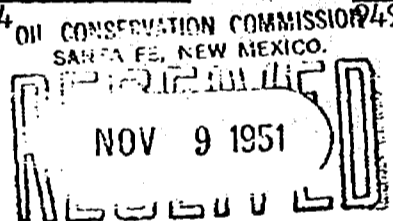
The dates of this work were as follows:.....

Notice of intention to do the work ~~was~~ (was not) submitted on Form C-102 on....., 19.....,
and approval of the proposed plan ~~was~~ (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

The following Semi-Annual SI Pressure for October, 1951 on Thomas #1 well is given below:

Well	Date Taken	Time Shut-In	Shut-In Pressure
Thomas #1	10-13-51	24	49



Witnessed by Fred G. Bernard El Paso Natural Gas Co. Gas Engineer
Name Company Title

APPROVED:
OIL CONSERVATION COMMISSION

Nov. 9 1951
Oil & Gas Inspector
Name
Title
Date 6 1951

I hereby swear or affirm that the information given above is true and correct.

Name H. E. Massey
Position District Engineer
Representing Cities Service Oil Company
Company or Operator
Address Box 97, Hobbs, New Mexico

ORIGINAL

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Miscellaneous Reports on Wells

RECEIVED
MAY - 8 1951
OIL CONSERVATION COMMISSION
HOBBS OFFICE

Submit this report in triplicate to the Oil Conservation Commission or its proper agent within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. Reports on minor operations need not be signed and sworn to before a notary public. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL		Gas Well SI Pressure	X

May 7, 1951

Hobbs, New Mexico

Date

Place

OIL CONSERVATION COMMISSION,
SANTA FE, NEW MEXICO.
Gentlemen:

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company

Thomas

Well No. 1

in the

Company or Operator

Lease

C SW SE

of Sec.

19

T.

24S

R.

37E

N. M. P. M.

Langlie-Mattix

Field

Lea

County.

The dates of this work were as follows:

Notice of intention to do the work ~~was~~ (was not) submitted on Form O-102 on _____ 19____
and approval of the proposed plan ~~was~~ (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

The following Semi-Annual SI pressure on Thomas #1 well is given below:

Well	Date Taken	Time Shut-in	Shut-in Pressure
Thomas #1	4-28-51	24	1100

Witnessed by H. E. Massey Cities Service Oil Company District Engineer
Name Company Title

Subscribed and sworn before me this _____

I hereby swear or affirm that the information given above is true and correct.

7 th day of May, 19 51

Name H. E. Massey

Position District Engineer

Representing Cities Service Oil Company
Company or Operator

My commission expires Feb. 8, 1954

Address Drawer G., Hobbs, New Mexico

Remarks:

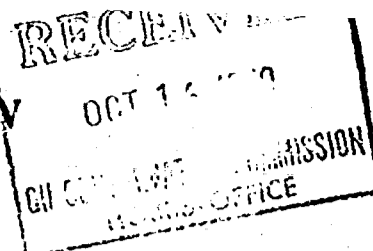
APPROVED
MAY - 8 1951
Date _____

Roy Yarbrough
Name
Oil & Gas Inspector
Title

OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS



Submit this report in triplicate to the Oil Conservation Commission or its proper agent within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. Reports on minor operations need not be signed and sworn to before a notary public. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL	X	REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

October 11, 1950

Hobbs, New Mexico

Date

Place

OIL CONSERVATION COMMISSION,
SANTA FE, NEW MEXICO

Gentlemen:

Following is a report on the work done and the results obtained under the heading noted above at the
Cities Service Oil Company Thomas Well No. 1 in the

C SW SE Company or Operator Lease
of Sec. 19, T. 24S, R. 37E, N. M. P. M.,
Langlie-Mattix Field, Lea County.

The dates of this work were as follows: October 7, 1950

Notice of intention to do the work was (~~was~~/~~not~~) submitted on Form C-102 on October 6, 1950

and approval of the proposed plan was (~~was~~/~~not~~) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Total depth 3663' PB 3440' lime. After acidizing this well with 1000 gallons of acid through perforations above 3270', swabbed in and put on test.

Witnessed by R. W. Ely Cities Service Oil Co. District Superintendent
Name Company Title

Subscribed and sworn before me this
11 th day of October 19 50
Fred Lawson
Notary Public

I hereby swear or affirm that the information given above is true and correct.
Name [Signature]
Position District Superintendent
Representing Cities Service Oil Company
Company or Operator

My commission expires February 8, 1954 Address Drawer G., Hobbs, New Mexico

Remarks:

APPROVED

Date OCT 17 1950

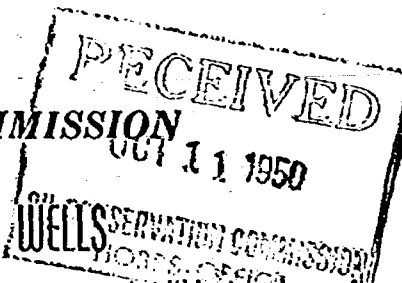
[Signature]
Engineer District Name
Title

ORIGINAL

OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON



Submit this report in triplicate to the Oil Conservation Commission or its proper agent within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. Reports on minor operations need not be signed and sworn to before a notary public. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL	X	REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

October 10, 1950
Date

Hobbs, New Mexico
Place

OIL CONSERVATION COMMISSION,
SANTA FE, NEW MEXICO
Gentlemen:

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company Thomas Well No. 1 in the
C SW SE Company or Operator Lease
of Sec. 19, T. 24S, R. 37E, N. M. P. M.,
Langlie-Mattix Field, Lea County.

The dates of this work were as follows: October 6, 1950

Notice of intention to do the work was (~~yes/no~~) submitted on Form C-102 on October 5, 1950
and approval of the proposed plan was (~~yes/no~~) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Total depth 3663', PB 3440' lime. Acidized open hole with 5000 gallons of acid. Pressure broke at 900# and treated at 600# at 2.6 B/M. Swabbed in and flowed 6 hours to clean up. Well produced 1980 MCF of gas per day rate after cleaning up.

Witnessed by R. W. Ely Cities Service Oil Company District Superintendent
Name Company Title

Subscribed and sworn before me this 10 th day of October 19 50
Fred Furson Notary Public
I hereby swear or affirm that the information given above is true and correct.
Name [Signature]
Position District Superintendent
Representing Cities Service Oil Company
Company or Operator

My commission expires February 8, 1950 Address Drawer G., Hobbs, New Mexico

Remarks: APPROVED
OCT 11 1950

[Signature]
Engineer District I
Name
Title

ORIGINAL

OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

RECEIVED

OCT - 4 1950

OIL CONSERVATION COMMISSION

HOBBS OFFICE

Submit this report in triplicate to the Oil Conservation Commission or its proper agent within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. Reports on minor operations need not be signed and sworn to before a notary public. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL	X	REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

October 3, 1950

Hobbs, New Mexico

Date

Place

OIL CONSERVATION COMMISSION,
SANTA FE, NEW MEXICO
Gentlemen:

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company Thomas Well No. 1 in the

Company or Operator

Lease

C SW SE of Sec. 19, T. 24S, R. 37E, N. M. P. M.,

Langlie-Mattix Field, Lea County.

The dates of this work were as follows: September 25, 1950

Notice of intention to do the work was (~~was~~/~~not~~) submitted on Form C-102 on September 25, 1950and approval of the proposed plan was (~~was~~/~~not~~) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Total depth 3351' lime. This well was acidized with 5000 gallons of 15% Dowell Acid, 3025' to 3215'. Pressure broke at 1400# and treated at 1200# at average of 2.6 bbls per minute. Swabbed well in and cleaned in pit. Tested through separator for 7 hrs. Produced 1735 MCF of gas and spray of water, on 3/4" choke, 190# flowing TP. No oil in water spray.

Witnessed by R. W. Ely Cities Service Oil Company District Superintendent
Name Company Title

Subscribed and sworn before me this
3 rd day of October 19 50

Fred Larson

Notary Public

I hereby swear or affirm that the information given above is true and correct.

Name

Position District Superintendent

Representing Cities Service Oil Company

Company or Operator

My commission expires Feb. 8, 1950

Address Drawer G., Hobbs, New Mexico

Remarks:

RECEIVED

Date

[Signature]
Oil & Gas Inspector
Title

Indicate nature of report by checking below.

Place

Roy, [unclear] [unclear]
 [unclear] [unclear] Inspector Name
 [unclear] [unclear] Title

ORIGINAL**OIL CONSERVATION COMMISSION**

Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission or its proper agent within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. Reports on minor operations need not be signed and sworn to before a notary public. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

September 5, 1950

Hobbs, New Mexico

Date

Place

OIL CONSERVATION COMMISSION,
SANTA FE, NEW MEXICO
Gentlemen:

Following is a report on the work done and the results obtained under the heading noted above at the _____

Cities Service Oil Company Thomas Well No. 1 in the _____

Company or Operator Lease
C SW SE of Sec. 19, T. 24S, R. 37E, N. M. P. M.,
Langlie-Mattix Field, Lea County.

The dates of this work were as follows: Sept. 2, 1950 and Sept. 3, 1950

Notice of intention to do the work was (~~was~~/not) submitted on Form C-102 on Sept. 2 19 50and approval of the proposed plan was (~~was~~/not) obtained. (Cross out incorrect words.)**DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED**

Total depth 1163' anhydrite. Ran 37½ jts (1150.63') of 8-5/8" OD 24# 8 R thd. casing set at 1162.06' and cemented with 625 sax. Plug down 3:25 AM 9-2-50. Cement was allowed to set 24 hours, plug drilled out and hole bailed dry. No water came in, in one hour. Picked up drill pipe and drilling resumed.

Witnessed by R. W. Ely Cities Service Oil Company District Superintendent
Name Company Title

Subscribed and sworn before me this _____

6 th day of September 19 50

Fred Larson

Notary Public

I hereby swear or affirm that the information given above is true and correct.

Name

Position District Superintendent

Representing Cities Service Oil Company

Company or Operator

Drawer G.

Address Hobbs, New Mexico

My commission expires Feb. 8, 1954

Remarks:

APPROVED

Date SEP 8 - 1950

Ray [Signature]
Name
Oil & Gas Inspector
Title

Form C-101
ORIGINAL

OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

RECEIVED
SEP 5 - 1950
OIL CONSERVATION COMMISSION
HOBBS OFFICE

Submit this report in triplicate to the Oil Conservation Commission or its proper agent within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. Reports on minor operations need not be signed and sworn to before a notary public. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS	<input checked="" type="checkbox"/>	REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

September 1, 1950

Date

Hobbs, New Mexico

Place

OIL CONSERVATION COMMISSION,
SANTA FE, NEW MEXICO

Gentlemen:

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company

Thomas

Well No. 1

in the

Company or Operator

Lease

C SW SE of Sec. 19, T. 24S, R. 37E, N. M. P. M.,

Langlie Mattix Field, Lea County.

The dates of this work were as follows: 8-30-50

Notice of intention to do the work was ~~was/496~~ submitted on Form C-101 on 8-18 1950

and approval of the proposed plan was ~~was/496~~ obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

This well was spudded at 2:30 P. M. on August 30, 1950.

Witnessed by	W. M. Dickey	Cities Service Oil Company	Farm Boss
	Name	Company	Title
Subscribed and sworn before me this	1st	I hereby swear or affirm that the information given above is true and correct.	
day of	September 19 50	Name	H. C. Massey
<i>Fred L. Massey</i>	Notary Public	Position	District Engineer
		Representing	Cities Service Oil Company
		Company or Operator	
My commission expires	Feb. 8, 1954	Drawer "G"	
		Address	Hobbs, New Mexico

Remarks:

APPROVED

SEP 5 - 1950

Date

Ray [Signature]
Name
Oil & Gas Inspector
Title

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

MISCELLANEOUS NOTICES

Submit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
NOTICE OF INTENTION TO PLUG WELL		NOTICE OF INTENTION TO PLUG BACK		NOTICE OF INTENTION TO SET LINER	
NOTICE OF INTENTION TO SQUEEZE		NOTICE OF INTENTION TO ACIDIZE		NOTICE OF INTENTION TO SHOOT (Nitro)	
NOTICE OF INTENTION TO GUN PERFORATE		NOTICE OF INTENTION (OTHER)	X	NOTICE OF INTENTION (OTHER)	

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICOHobbs, New Mexico
(Place)October 30, 1961
(Date)

Gentlemen:

Following is a Notice of Intention to do certain work as described below at the.....

Cities Service Petroleum Company, Thomas
(Company or Operator) Well No. 1 in 0
(Unit)
SW 1/4 SE 1/4 of Sec. 19, T. 24-S, R. 37-E, NMPM, Jalmat (Gas) Pool
(40-acre Subdivision)
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK
(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

It is proposed to sand frac Thomas No. 1 with 20,000# of sand and 10,000 gallons of surfactant and fluid loss treated water in three stages. It is proposed to plug back to 3170' with pea gravel w/cal seal cap to protect the Seven Rivers Formation. It is estimated that the deliverability will be increased 1500 MCF when this work is completed.

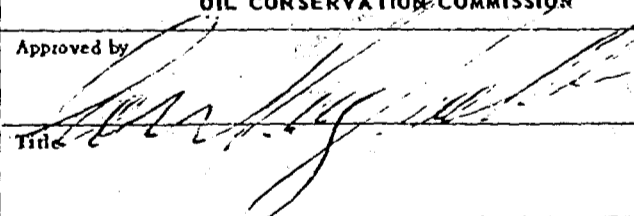
Approved....., 19.....
Except as follows:Approved
OIL CONSERVATION COMMISSIONBy.....
Title.....Cities Service Petroleum Company
Company or Operator

By.....

Position..... District Superintendent
Send Communications regarding well to:

Name..... George M. Geyer

Address..... Box 97 - Hobbs, New Mexico

NUMBER OF COPIES RECEIVED DISTRIBUTION SANTA FE FILE U.S.S. LAND OFFICE TRANSPORTER PRODUCTION OFFICE OPERATOR		NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS		FORM C-110 (Rev. 7-60)
FILE THE ORIGINAL AND 4 COPIES WITH THE APPROPRIATE OFFICE				
Company or Operator			Lease No. 22	Well No. 1
Unit Letter 0	Section 19	Township 24-S	Range 37-E	County Lea
Pool Jalmar (Gas)			Kind of Lease (State, Fed, Fee) Patented	
If well produces oil or condensate give location of tanks		Unit Letter *	Section 19	Range 37-E
Authorized transporter of oil <input type="checkbox"/> or condensate <input checked="" type="checkbox"/>			Address (give address to which approved copy of this form is to be sent)	
Cities Service Petroleum Company - Trucks			Leggett Building - Midland, Texas	
Is Gas Actually Connected? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Authorized transporter of casing head gas <input type="checkbox"/> or dry gas <input checked="" type="checkbox"/>		Date Connected	Address (give address to which approved copy of this form is to be sent)	
El Paso Natural Gas Company			Box 1492 - El Paso, Texas	
If gas is not being sold, give reasons and also explain its present disposition:				
REASON(S) FOR FILING (please check proper box)				
New Well <input type="checkbox"/> Change in Ownership <input type="checkbox"/> Change in Transporter (check one) Other (explain below) <input type="checkbox"/> Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/> Casing head gas <input type="checkbox"/> Condensate <input checked="" type="checkbox"/>				
Change transporter from: Cities Service Oil Company - Trucks To: Cities Service Petroleum Company - Trucks.				
Remarks				
*Tanks located on lease.				
The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.				
Executed this the _____ day of _____, 19____.				
OIL CONSERVATION COMMISSION			By	
Approved by 			Title Fred Hanson	
Title			Company	
Date			Address	

Detailed account of work done, nature and quantity of materials used, and results obtained.

This well drilled to 3663' and plugged back to PBTD of 3440', 10-4-50. 11-30-61 plugged back to 3170' w/pea gravel, sand fractured w/20,000# sand, 10,000 gal. water, 1500 gal. acid in three stages. 1st stage w/500 gal. acid, 7,000# sand, 3,500 gal. water, 250 gal. gelled water w/rock salt. 2nd stage w/500 gal acid, 7,000# sand, 3,500 gal water, 250 gal. gelled water w/rock salt. 3rd stage 500 gal. acid, 6,000# sand 3,000 gal. water. Bailed sand, found top of sand 3070', 100' fillup after frac. Bailed 3' sand, packed up tight, rig up reverse circulation unit. Reversed out to 3174' circulated hole clean. Ran 99 jts. of used 2" EUE 4.7# 8R J-55 SS tubing or 3072.30' set @ 3078' w/sweet packer @ 3010', swabbed in well, flow 6 hrs to clean and S.I. for build up. Swabbed fluid found bridge in tubing @ 2800' tbg plugged. Pulled tbg, clean out to 3435', ran 106 jts. of used 2" EUE 4.7# 8R J-55 SS tubing or 3282' set @ 3288'. Swabbed and flowed intermittently, S.I. Opened up w/400# tbg pressure and 425# casing pressure, tubing bled down in 5 minutes. Treated down tubing and casing w/15 gal. W.B.R. in 3000 gal. water. Flowed tbg down. Swabbed showing some gas. Fluid level 1500' from bottom. This well non-commercial. S.I. effective 1-27-62.

NUMBER OF COPIES RECEIVED	
DISTRIBUTION	
STATE #1	
FILE	
U.S.S.	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
PRODUCTION OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS

FORM C-103
(Rev 3-55)

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company Cities Service Petroleum Co.		Address Box 97, Hobbs, New Mexico			
Lease Thomas	Well No. 1	Unit Letter 0	Section 19	Township 24-S	Range 37-E
Date Work Performed 11-30-61 thru 1-27-62	Pool Jalmat Gas			County Lea	

THIS IS A REPORT OF: (Check appropriate block)

- ☐ Beginning Drilling Operations
 ☐ Casing Test and Cement Job
 ☐ Other (Explain):
☐ Plugging
 ☒ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

See attached.

CITIES SERVICE OIL COMPANY
 effective December 31, 1962

**THE COMMISSION MUST BE NOTIFIED
 EVERY 6 MONTHS ON FORM C-103
 AS TO THE WELL STATUS AND YOUR
 FUTURE PLANS FOR THIS WELL**

Witnessed by R. H. Mullins	Position Asst. Prod. Foreman	Company Cities Service Petroleum Co.
--------------------------------------	--	--

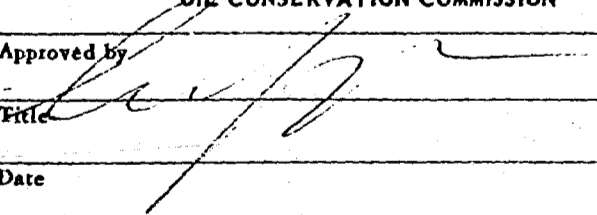
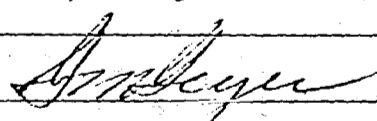
FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev. GR 3270'	TD 3663'	PBTD 3440'	Producing Interval 3025-3440'	Completion Date 10-4-50
Tubing Diameter 2" EUE	Tubing Depth 3428'	Oil String Diameter 5 1/2" OD	Oil String Depth 3351'	
Perforated Interval(s) 3025-3050'; 3070-3140'; 3145-3215'; 3336-3346'				
Open Hole Interval 3351-3440'		Producing Formation(s) Jalmat (Gas)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover	8-25-61	1	688	2%	688,000	1080
After Workover	See above detailed account of work.					

OIL CONSERVATION COMMISSION		I hereby certify that the information given above is true and complete to the best of my knowledge.	
Approved by 	Name 		
Title	Position District Superintendent		
Date	Company Cities Service Petroleum Company		

COPIES RECEIVED	
CONTRIBUTION	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

RECEIVED
 NEW MEXICO OIL CONSERVATION COMMISSION
SEP 23 1976

Form C-103
 Supersedes Old
 C-102 and C-103
 Effective 1-1-65

O. C. C.
ARTESIA, OFFICE

5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	
7. Unit Agreement Name	
8. Farm or Lease Name	
Thomas	
9. Well No.	
1	
10. Field and Pool, or Wildcat	
Jalmat Gas	
12. County	
Lea	

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER
2. Name of Operator
Cities Service Oil Company
3. Address of Operator
P. O. Box 1919, Midland, Texas 79701
4. Location of Well
UNIT LETTER <u>0</u> <u>660</u> FEET FROM THE <u>South</u> LINE AND <u>1980</u> FEET FROM THE <u>East</u> LINE, SECTION <u>19</u> TOWNSHIP <u>24S</u> RANGE <u>37E</u> N.M.P.M.
15. Elevation (Show whether DF, RT, GR, etc.)
3270' DF

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	Well Status <input checked="" type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

S.I. 1-27-62. Study for remedial work or P&A .

Expires 10/1/76 (2)

M

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED <u>Elmer Stutz</u>	TITLE <u>Region Petroleum Engineer</u>	DATE <u>September 20, 1976</u>
APPROVED BY <u>Jerry [Signature]</u>	TITLE <u>SUPERVISOR DISTRICT 1</u>	DATE <u>SEP 28 1976</u>
CONDITIONS OF APPROVAL, IF ANY:		

COPIES RECEIVED	
TRIBUTION	
FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

SUNDY NOTICES AND REPORTS ON WELLS <small>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)</small>		5a. Indicate Type of Lease State <input type="checkbox"/> Fee <input checked="" type="checkbox"/>
1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. State Oil & Gas Lease No.
2. Name of Operator Cities Service Oil Company		7. Unit Agreement Name
3. Address of Operator Box 1919, Midland, Texas 79702		8. Farm or Lease Name Thomas
4. Location of Well UNIT LETTER 0 660 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 19 TOWNSHIP 24S RANGE 37E NMPM.		9. Well No. 1
15. Elevation (Show whether DF, RT, GR, etc.) 3270 GL		10. Field and Pool, or Wildcat Jalpat - Yates 7 Rvrs
12. County Lea		

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	
		OTHER Relocating Surface & Intermediate csg. valves, testing above ground, and filling cellar w/sand <input checked="" type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

The surface and intermediate casing testing valves located in the cellar were removed, a 2" riser installed and the valves have been relocated above the ground. Both of the valves are marked as to which csg string they service and the cellar has been filled with sand.

Inspected by Melvin Crossland w/NMOCC.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Robert H. Johnson Jr.	TITLE Petroleum Engineer	DATE April 11, 1977
APPROVED BY M. J. Crossland	TITLE OIL & GAS INSPECTOR	DATE PR 14 1977
CONDITIONS OF APPROVAL, IF ANY:		

Cities Thomas #2

Complete Will file

8/21/80

R-2240

Santa Fe, New Mexico

ORIGINAL

NOTICE OF INTENTION TO DRILL

Notice must be given to the Oil Conservation Commission or its proper agent and approval obtained before drilling begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

Hobbs, New Mexico

July 31, 1951

Place

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico,

Gentlemen:

You are hereby notified that it is our intention to commence the drilling of a well to be known as

Cities Service Oil Company

Thomas

well No. 2

in SW SW NE

Company or Operator

Lease

of Sec. 19

T 24-S

R 37-E

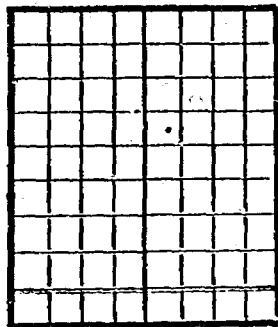
N. M., P. M.

Langlie-Mattix Field,

Lea

County.

N



AREA 640 ACRES

LOCATE WELL CORRECTLY

The well is 2310 feet ~~xy~~ ~~1/4~~ S of the North line and 2210 feet ~~1/4~~ (W.) of the East line of Sec. 19-24S-37E

(Give location from section or other legal subdivision lines. Cross out wrong directions.)

If state land the oil and gas lease is No. - Assignment No. -

If patented land the owner is Mrs. Ada E. Thomas

Address Jal, New Mexico

If government land the permittee is -

Address -

The lessee is Cities Service Oil Company

Address Bartlesville, Oklahoma

We propose to drill well with drilling equipment as follows: Rotary all the way

The status of a bond for this well in conformance with Rule 89 of the General Rules and Regulations of the Commission is as follows: Approved

We propose to use the following strings of casing and to land or cement them as indicated:

Size of Hole	Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented	Secks Cement
11 1/4"	8-5/8"	24#	New	1250'	Cemented	600(circulate)
7-7/8"	5 1/2"	14#	"	3600	"	900

If changes in the above plan become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 3600 feet.

Additional information:

Approved AUG 1 - 1951
except as follows:

Sincerely yours,

Cities Service Oil Company

Company or Operator

By H. E. MasseyPosition District Engineer

Send communications regarding well to:

Name H. E. MasseyAddress Drawer G., Hobbs, New Mexico

OIL CONSERVATION COMMISSION,

By H. E. MasseyTitle Oil & Gas Inspector

Form C-102
ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

MISCELLANEOUS NOTICES

RECEIVED

SEP 10 1951

OIL CONSERVATION COMMISSION

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF	<input checked="" type="checkbox"/>	NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico

September 4, 1951

Place

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.

Gentlemen:

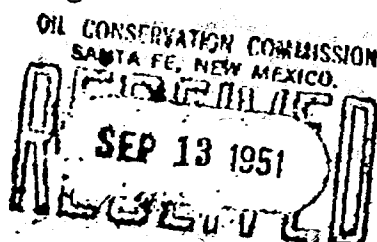
Following is a notice of intention to do certain work as described below at the

Cities Service Oil Company Thomas Well No. 2 in SW SW NE
Company or Operator Lease
of Sec. 19, T. 24-S, R. 37-E, N. M. P. M., Langlie-Mattix Field.
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

This well was drilled to a total depth of 1205' in Anhydrite. Ran 28-3/4 joints of 8-5/8" 8R thd. J-55 casing, 1194.01' and set at 1203.76' and cemented with 625 sacks of cement. Plug was down at 1:30 P. M. September 2, 1951. Cement circulated. The cement will be allowed to set for 24 hours before testing for shut-off.



SEP 10 1951

Approved _____, 19____
except as follows:

Cities Service Oil Company

Company or Operator

By H. E. Massey

Position District Engineer
Send communications regarding well to

Name H. E. Massey

Address Drawer G, Hobbs, New Mexico

OIL CONSERVATION COMMISSION

By Ray Yankovich
Oil & Gas Inspector
Title _____

ORIGINALNEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO**RECEIVED**ON
SEP 12 1951**MISCELLANEOUS NOTICES**

OIL CONSERVATION COMMISSION

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF	<input checked="" type="checkbox"/>	NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico

September 10, 1951

Place

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico

Gentlemen:

Following is a notice of intention to do certain work as described below at the

Cities Service Oil Company Thomas Well No. 2 in SW SW NE
Company or Operator Lease
of Sec. 19, T. 24-S, R. 37-E, N. M. P. M. Langlie-Mattix Field.
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

This well was drilled to a total depth of 2870' in lime. Ran 65-1/3 jts of 5 1/2" OD casing, 2861.45' set at 2870' and cemented with 250 sacks of cement. Plug down 11:45 AM 9-8-51. The cement will be allowed to set for 48 hours before testing for shut-off.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.**RECEIVED**
SEP 17 1951Approved _____, 19____
except at follows:Cities Service Oil Company
Company or Operator

By _____

Position District Superintendent
Send communications regarding well to

Name R. W. Ely

Address Drawer G

Hobbs, New Mexico

OIL CONSERVATION COMMISSION

By Roy Yarbrough

Title _____

Date first oil run to tanks or gas to pipe line: _____

Pipe line taking oil or gas: _____

Remarks: This well is shut-in.

Cities Service Oil Company
Company or Operator

By: 
Signature

Position: District Superintendent

Send communications regarding well to:

Name: R. W. Ely
Cities Service Oil Company

Address: Drawer G., Hobbs, New Mexico

APPROVED Oct - 4 , 1951

OIL CONSERVATION COMMISSION

By: Ray O. quadracci

Title: Oil & Gas Inspector

OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

Form C-104

REQUEST FOR (OIL)-(GAS) ALLOWABLE

It is necessary that this form be submitted by the operator before an allowable will be assigned to any completed oil or gas well. Form C-110 (Certificate of Compliance and Authorization to Transport Oil) will not be approved until Form C-104 is filed with the Commission. Form C-104 is to be submitted in triplicate to the office to which Form C-101 was sent. Two copies will be retained there and the other submitted to the Proration Office, Hobbs, New Mexico. The allowable will be assigned effective 7:00 a.m. on date of completion, provided completion report is filed during month of completion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15.025 P.B. at 60° Fahrenheit.

Hobbs, New Mexico

September 28, 1951

Place

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Cities Service Oil Company

Thomas

Well No. 2

in

Company or Operator

Lease

section 19, T. 24-S, R. 37-E, N.M.P.M. Langlie-Mattix Pool Lea County

Please indicate location:

Elevation 3293 Spudded 8-31-51 Completed 9-26-51

Total Depth 3680 P.B. _____

Top Oil/Gas Pay 2962 Top Water Pay _____

Initial Production Test: Pump _____ Flow 1477MCF (8000 OR CU. FT. GAS PER DAY)

Based on _____ Bbls. Oil in _____ hrs. _____ Mins.

Method of Test (Pitot, gauge, prover, meter run): Prover

Size of choke in inches 2"

Tubing (Size) 2" EUE @ 3649.95' Feet

Pressures: Tubing 150# Casing 225#

Gas/Oil Ratio _____ Gravity _____

Casing Perforations: _____

Unit letter: G

Casing & Cementing Record

Size	Feet	Sax
<u>8-5/8"</u>	<u>1194.01</u>	<u>625</u>
<u>5 1/2"</u>	<u>2861.45</u>	<u>250</u>

Acid Record:

_____ Gals _____ to _____
 _____ Gals _____ to _____
 _____ Gals _____ to _____

Shooting Record.

_____ Qts _____ to _____
 _____ Qts _____ to _____
 _____ Qts _____ to _____

Show of Oil, Gas and water

S/ _____
 S/ _____
 S/ _____
 S/ _____
 S/ _____
 S/ _____

Natural Production Test: _____ Pumping 1477MCF Flowing

Test after acid or shot: _____ Pumping _____ Flowing

Please indicate below Formation Tops (in conformance with geographical section of state):

Southeastern New Mexico

Northwestern New Mexico

T. Anhy 1185'
 T. Brown Lime 2862'
 B. Salt _____
 T. Yates 2962'
 T. 7 Rivers 3256'
 T. Queen 3625'
 T. Grayburg _____
 T. San Andres _____
 T. Glorieta _____
 T. Drinkard _____
 T. Tubbs _____
 T. Abo _____
 T. Penn _____
 T. Miss _____

T. Devonian _____
 T. Silurian _____
 T. Montoya _____
 T. Simpson _____
 T. McKee _____
 T. Ellenburger _____
 T. Gr. Wash _____
 T. Granite _____
 T. _____
 T. _____
 T. _____
 T. _____
 T. _____

T. Ojo Alamo _____
 T. Kirtland-Fruitland _____
 T. Farmington _____
 T. Pictured Cliffs _____
 T. Cliff House _____
 T. Menefee _____
 T. Point Lookout _____
 T. Mancos _____
 T. Dakota _____
 T. Morrison _____
 T. Penn _____
 T. _____
 T. _____

(Please supply required information on reverse side of form)

ORIGINAL

OIL CONSERVATION COMMISSION OCT 3 1951
STATE OF NEW MEXICO

Form C-110

CERTIFICATE of COMPLIANCE and AUTHORIZATION to TRANSPORT OIL

Company or Operator Cities Service Oil Co. Lease Thomas
Address Hobbs, New Mexico Bartlesville, Oklahoma
(Local or Field Office) (Principal Place of Business)
Unit G Wells No. 2 Sec. 19 T. 24 R. 37 Field Langlie-Mattix County Lea
Kind of Lease Patented Location of Tanks On lease
Transporter El Paso Natural Gas Company Address of Transporter Jal, New Mexico
El Paso, Texas Gas (Local or Field Office)
Percent of 100 to be transported 100 Other transporters author-
ized to transport Gas from this unit are None %
REMARKS:

The undersigned certifies that the rules and regulations of the Oil Conservation Commission have been complied with except as noted above and that gathering agent is authorized to transport the percentages of oil produced from the above described property and that this authorization will be valid until further notice to the transporter named herein or until cancelled by the Oil Conservation Commission of New Mexico.

Executed this the 2nd day of October, 195 1
Cities Service Oil Company
(Company of Operator)

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
District Superintendent

State of New Mexico

County of Lea

Before me, the undersigned authority, on this day personally appeared R. W. Ely known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states that he is authorized to make this report and has knowledge of the facts stated herein and that said report is true and correct.

Subscribed and sworn to before me, this the 2nd day of October, 195 1

Notary Public in and for Lea County, New Mexico

Approved: Oct 14 1951

My commission expires Feb. 8, 1954

OIL CONSERVATION COMMISSION

By [Signature]

Oil & Gas Inspector

(See Instructions on Reverse Side)

Date first oil run to tanks or gas to pipe line: 10-19-51

Pipe line taking oil or gas: Cities Service Oil Co.-Trucks

Remarks: _____

Cities Service Oil Company
Company or Operator

By: 
Signature

Position: Dist. Supt.

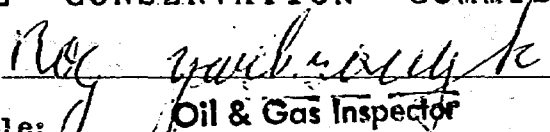
Send communications regarding well to:

Name: R. W. Ely

Address: Cities Service Oil Company
Box 97, Hobbs, New Mexico

APPROVED 11- 1951

OIL CONSERVATION COMMISSION

By: 

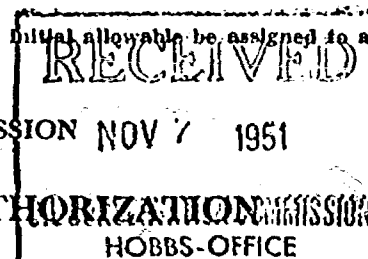
Title: Oil & Gas Inspector

ORIGINAL

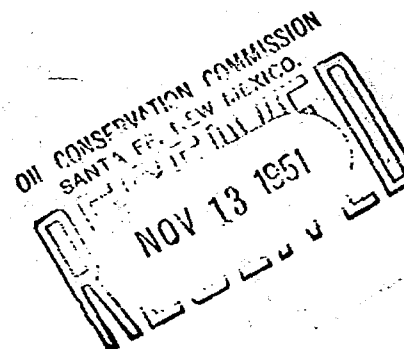
It is necessary that Form C-104 be approved before this form can be approved and an initial allowable be assigned to any completed oil or gas well.

NEW MEXICO OIL CONSERVATION COMMISSION NOV 7 1951

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL



Company or Operator Cities Service Oil Company Lease Thomas
 Address Box 97, Hobbs, New Mexico Bartlesville, Oklahoma
(Local or Field Office) (Principal Place of Business)
 Unit G Wells No. 2 Sec. 19 T. 24S R. 37E Pool Langlie-Mattix County Lea
 Kind of Lease Oil Location of Tanks On Lease
 Transporter Cities Service Oil Co.-Trucks Address of Transporter Midland, Texas
(Local or Field Office)
Bartlesville, Oklahoma Percent of oil to be transported 100 Other transporters authorized
(Principal Place of Business)
 to transport oil from this unit are None -0- %
 REMARKS:



The undersigned certifies that the rules and regulations of the Oil Conservation Commission have been complied with except as noted above and that gathering agent is authorized to transport the percentage of oil produced from the above described property and that this authorization will be valid until further notice to the transporter named herein or until cancelled by the Oil Conservation Commission of New Mexico.

Executed this the 6th day of November, 1951

Cities Service Oil Company
(Company or Operator)

By [Signature]
 Title District Superintendent

Approved: 11-7, 1951

OIL CONSERVATION COMMISSION

By [Signature]

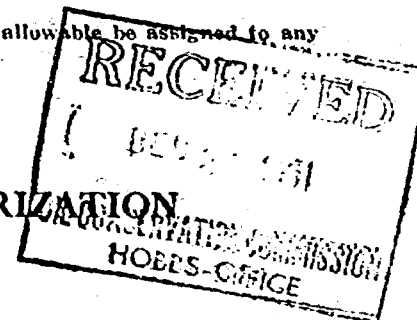
Oil & Gas Inspector

(See Instructions on Reverse Side)

It is necessary that Form C-104 be approved before this form can be approved and an initial allowable be assigned to any completed oil or gas well.

NEW MEXICO OIL CONSERVATION COMMISSION

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL



Company or Operator Cities Service Oil Company Lease Thomas
 Address Box 97, Hobbs, New Mexico Bartlesville, Oklahoma
(Local or Field Office) (Principal Place of Business)
 Unit G Wells No. 2 Sec. 19 T. 24S R. 37E Pool Langlie-Mattix County Lea
 Kind of Lease Oil Location of Tanks On Lease
 Transporter Texas-New Mexico Pipeline Co. Address of Transporter Midland, Texas
(Local or Field Office)
Houston, Texas Percent of oil to be transported 100 Other transporters authorized
(Principal Place of Business)
 to transport oil from this unit are None -0- %

REMARKS:

This oil is to be hauled by Cities Service Oil Company-Trucks from the Thomas Lease to a tank on the Owen Lease, Section 35-21S-R37E, Lea County, New Mexico. The oil will then be transported by the Texas-New Mexico Pipeline Company.

"Certificate of Compliance and Authorization to Transport Oil" by Cities Service Oil Company-Trucks has been approved. We desire this certificate to be approved so that the Texas-New Mexico Pipeline Company will be authorized to move the oil.

The undersigned certifies that the rules and regulations of the Oil Conservation Commission have been complied with except as noted above and that gathering agent is authorized to transport the percentage of oil produced from the above described property and that this authorization will be valid until further notice to the transporter named herein or until cancelled by the Oil Conservation Commission of New Mexico.

Executed this the 20th day of December, 1951

Cities Service Oil Company
(Company or Operator)

By [Signature]
 Title District Superintendent

Approved: 12 - 21, 1951

OIL CONSERVATION COMMISSION

By [Signature]
Oil & Gas Inspector

(See Instructions on Reverse Side)

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS NOTICES

MISCELLANEOUS NOTICES

Submit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
NOTICE OF INTENTION TO PLUG WELL		NOTICE OF INTENTION TO PLUG BACK	X	NOTICE OF INTENTION TO SET LINER	
NOTICE OF INTENTION TO SQUEEZE		NOTICE OF INTENTION TO ACIDIZE		NOTICE OF INTENTION TO SHOOT (Nitro)	
NOTICE OF INTENTION TO GUN PERFORATE		NOTICE OF INTENTION (OTHER)		NOTICE OF INTENTION (OTHER)	

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICOHobbs, New Mexico
(Place)April 27, 1955
(Date)

Gentlemen:

Following is a Notice of Intention to do certain work as described below at the.....

Cities Service Oil Company Thomas Well No. 2 in G
(Company or Operator) (Unit)
SW SW 1/4 NE 1/4 of Sec. 19, T. 14-S, R. 37-E, NMPM., Langlie-Mattix Pool
(40-acre Subdivision)
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK
(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

The New Mexico Oil Conservation Commission is reclassifying all gas wells in the Langlie-Mattix Oil Pool with gas-oil ratios in excess 100,000/1 as gas wells in the Jalmat Pool.

To be classified as a Jalmat well, however, it is necessary that it be completed in the vertical limits of that pool. Thomas No. 2 was completed at a total depth of 3680'. It is proposed to plug the well back to 3483' and complete as a gas well which will fall within the limits of the Jalmat Pool.

Approved....., 19.....
Except as follows:

Approved
OIL CONSERVATION COMMISSION

By: *A. G. Stanley*
Title: Engineer, District

Cities Service Oil Company
Company or Operator

By: *Geo. Geyer*
Position: Dist. Supt.
Send Communications regarding well to:

Name: Geo. Geyer
Address: Box 97, Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

(Form C-104)
(Revised 7/1/52)

REQUEST FOR (OIL)* - (GAS) ALLOWABLE

New Well
Recompletion

This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15.025 psia at 60° Fahrenheit.

Hobbs, New Mexico

5-26-55

(Place)

(Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Cities Service Oil Company
(Company or Operator)

Thomas

Well No. 2

in SW SW 1/4 NE 1/4

G

(Unit)

Sec. 19

T. 14-S

R. 37-E

NMPM.

Jalmar

Pool

Lea

County Date Spudded 8-31-51

Date Completed 9-26-51

Date Recompleted - May 12, 1955

Please indicate location:

Elevation 3293' Total Depth 3680' P.B. 3480'

Top gas pay 2964' Name of Prod. Form Yates & Upper Seven Rivers

Casing Perforations: or

Depth to Casing shoe of Prod. String 2870'

Natural Prod. Test BOPD

based on bbls. Oil in Hrs. Mins.

Test after acid or shot BOPD

Based on bbls. Oil in Hrs. Mins.

Produced 828 MCF in 24 hrs. FTP 640#, FCP 660#

Gas Well Potential w/1 bbl oil per day

Size choke in inches 16/64"

Date first oil run to tanks or gas to Transmission system May 12, 1955

Cities Service Oil Co.

Transporter taking Oil or Gas: El Paso Natural Gas Co.

Casing and Cementing Record

Size Feet Sax

8 5/8"	1194.01	625(circulated)
5 1/2"	2861.45	250

Remarks: * Oil Allowable requested to enable the transportation of fluid produced in connection with the production of natural gas.

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

Approved _____, 19____

Cities Service Oil Company

(Company or Operator)

By: *Geo. M. Geyer*
(Signature)

Title Dist. Supt.

Send Communications regarding well to:

Name Geo. M. Geyer

Address Box 97, Hobbs, New Mexico

OIL CONSERVATION COMMISSION

By: *S. J. Stanley*

Title District Director

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

It is necessary that Form C-104 be approved before this form can be approved and an initial allowable be assigned to any completed Oil or Gas well. Submit this form in QUADRUPPLICATE.

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator..... Cities Service Oil Company Lease..... Thomas
Address..... Box 97, Hobbs, New Mexico Cities Service Bldg., Bartlesville, Oklahoma
(Local or Field Office) (Principal Place of Business)
Unit..... G Well(s) No..... 2 Sec..... 19 T..... 24-S R..... 37-E Pool..... Jalmat
County..... Lea Kind of Lease..... Patented
If Oil well Location of Tanks..... On Lease
Authorized Transporter..... El Paso Natural Gas Company Address of Transporter.....
Box 1493, Jal., New Mexico Box 1492, El Paso, Texas
(Local or Field Office) (Principal Place of Business)
Per cent of ~~Oil~~ Natural Gas to be Transported..... 100 Other Transporters authorized to transport Oil or Natural Gas
from this unit are..... Cities Service Oil Company - Trucks
..... 100 %

REASON FOR FILING: (Please check proper box)

NEW WELL..... ☐ CHANGE IN OWNERSHIP..... ☐
CHANGE IN TRANSPORTER..... ☐ OTHER (Explain under Remarks)..... ☒

REMARKS: This well has been plugged back to 3480'. It is in the vertical limits of the Jalmat Gas Pool. It is currently producing some fluid. This C-110 is submitted to authorize the El Paso Natural Gas Company to transport gas. Prior to plug back, it was in the Langlie-Mattix Pool.

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 26th day of May 19 55

Approved..... 1955 19.....
OIL CONSERVATION COMMISSION
By.....
Title..... Dist. Supt.
Title.....
(See Instructions on Reverse Side)

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

It is necessary that Form C-104 be approved before this form can be approved and an initial allowable be assigned to any completed Oil or Gas well. Submit this form in **QUADRUPPLICATE**.

**CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
 TO TRANSPORT OIL AND NATURAL GAS**

Company or Operator Cities Service Oil Company Lease Thomas
 Address Box 97, Hobbs, New Mexico Cities Service Bldg., Bartlesville, Okla.
(Local or Field Office) (Principal Place of Business)
 Unit G, Well(s) No. 2, Sec. 19, T. 14-S, R. 37-E, Pool Jalmat
 County Lea Kind of Lease: Patented
 If Oil well Location of Tanks On Lease
 Authorized Transporter Cities Service Oil Company - Trucks Address of Transporter
Box 1221, Roswell, New Mexico Bartlesville, Oklahoma
(Local or Field Office) (Principal Place of Business)
 Per cent of Oil or Natural Gas to be Transported 100 Other Transporters authorized to transport Oil or Natural Gas
 from this unit are El Paso Natural Gas Company 100 %

REASON FOR FILING: (Please check proper box)

NEW WELL ☐ CHANGE IN OWNERSHIP ☐
 CHANGE IN TRANSPORTER ☐ OTHER (Explain under Remarks) ☒

REMARKS: This well has been plugged back to 3480'. It is in the vertical limits of the Jalmat Gas Pool. It is currently producing some fluid. This C-110 is submitted to change pool name. Prior to plug back, it was in the Langlie-Mattix Pool.

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 26th day of May, 19 55

Approved 1955, 19

OIL CONSERVATION COMMISSION

By J. G. Stanley

Title Engineer in Charge

Cities Service Oil Company

By [Signature]

Title Dist. Supt.

(See Instructions on Reverse Side)

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other) Plug Back	X

May 26, 1955
(Date)Hobbs, New Mexico
(Place)

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company
(Company or Operator)Thomas
(Lease)Ralph Johnson Rig Company
(Contractor)

Well No. 2 in the SW SW 1/4 NE 1/4 of Sec. 19,

T-24-S, R. 37-E, NMPM, Jalmat Pool, Lea County.

The Dates of this work were as follows: May 9, 1955 to May 12, inclusive

Notice of intention to do the work (was) ~~received~~ submitted on Form C-102 on April 27, 1955,
(Cross out incorrect words)and approval of the proposed plan (was) ~~received~~ obtained.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Thomas No. 2 was completed at a total depth of 3680' in the Langlie-Mattix Pool. However, the gas-oil ratio was in excess of 100,000/1. The well was plugged back from 3680' to 3480' and completed in the Yates and Upper Seven Rivers as a gas well within the vertical limits of the Jalmat gas pool. The well was produced to clean-up and then tested. It produced 828 MCF of gas per day, 640# TP, 650# CP, 16/64" choke and 1 barrel of oil.

Witnessed by C. H. Hammans
(Name)Cities Service Oil Co.
(Company)Production Foreman
(Title)

Approved: OIL CONSERVATION COMMISSION

S. G. Stanley
(Name)
District 1
(Title)MAY - 1 1955
(Date)

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

Name: [Signature]
Position: District Supt.
Representing: Cities Service Oil Co.
Address: Box 97, Hobbs, New Mexico

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Form C-103

RECEIVED

NOV - 6 1951

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL		Gas Well Open Flow	X

November 5, 1951

Hobbs, New Mexico

Date

Place

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company Thomas Well No. 2 In the
 Company or Operator Lease
 SW SW NE of Sec. 19 T. 24S R. 37E, N. M. P. M.,
 Langlie-Mattix Pool Lea County.

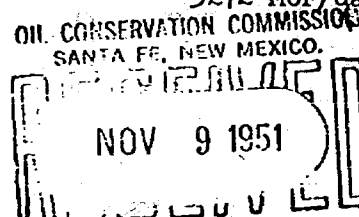
The dates of this work were as follows:

Notice of intention to do the work ~~was~~ (was not) submitted on Form C-102 on _____, 19____,
 and approval of the proposed plan ~~was~~ (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

The Annual Open Flow test on Thomas #2 was taken during October, 1951 and is given below:

Well	Date Taken	Gas Volume
Thomas #2	10-25-51	3272 MCF/day



Witnessed by R. P. Hemphill Cities Service Oil Company Production Engineer
 Name Company Title

APPROVED:
 OIL CONSERVATION COMMISSION

Ray York
 Oil & Gas Inspector
 Name Title

NOV 6 1951

Date

19

I hereby swear or affirm that the information given above is true and correct.

Name *R. P. Hemphill*

Position Production Engineer

Representing Cities Service Oil Company

Address Box 97, Hobbs, New Mexico
 Company or Operator

NEW MEXICO OIL CONSERVATION COMMISSION

RECEIVED

MISCELLANEOUS REPORTS ON WELLS NOV - 6 1951

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting or plugging of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL		Gas Well SI Pressure	X

November 2, 1951

Hobbs, New Mexico

Date

Place

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company

Thomas

Well No.

2

In the

Company or Operator

Lease

SW SW NE

of Sec.

19

T.

24S

R.

37E

N. M. P. M.

Langlie-Mattix

Pool

Lea

County.

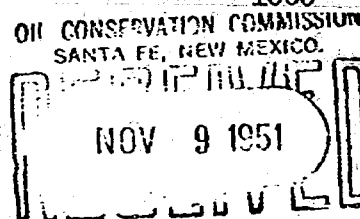
The dates of this work were as follows:

Notice of intention to do the work ~~was~~ (was not) submitted on Form C-102 on _____, 19____, and approval of the proposed plan ~~was~~ (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

The following Semi-Annual SI Pressure for October, 1951 on Thomas #2 well is given below:

Well	Date Taken	Time Shut-In	Shut-In Pressure
Thomas #2	10-22-51	24	1000



Witnessed by H. E. Massey Cities Service Oil Company District Engineer
Name Company Title

APPROVED: OIL CONSERVATION COMMISSION

Roy Yunkerly Oil & Gas Inspector
Name Title

NOV 6 1951

Date

19

I hereby swear or affirm that the information given above is true and correct.

Name

H. E. Massey

Position

District Engineer

Representing Cities Service Oil Company

Company or Operator

Address Box 97, Hobbs, New Mexico

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS

RECEIVED

SEP 12 1951

Submit this report in triplicate to the Oil Conservation Commission District Office ^{within ten days after the work specified is completed.} It should be signed and filed as a report on beginning drilling operations, results of shooting or plugging of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

September 11, 1951

Date

Hobbs, New Mexico

Place

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company

Company or Operator

Thomas

Well No. 2

In the

SW SW NE

of Sec. 19

Lease

T. 24-S

R. 37-E

N. M. P. M.

Langlie-Mattix

Pool

Lea

County.

September 8 & 10, 1951

The dates of this work were as follows:

Notice of intention to do the work was ~~was not~~ submitted on Form C-102 on September 10

1951

and approval of the proposed plan was ~~was not~~ obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

This well was drilled to a total depth of 2870' in lime. Ran 65-1/3 joints of 5 1/2 OD casing 2861.45' set at 2870' and cemented with 250 sacks of cement. Plug down at 11:45 A.M. 9-8-51. The cement was allowed to set for 48 hours, 1000# pressure applied with all valves closed with no drop in pressure, during a 30 minute period. Test was made prior to and after drilling plug. Drilling was then resumed.

OIL CONSERVATION COMMISSION
SAY A COPY TO THE REG.RECEIVED
SEP 17 1951

Witnessed by R. W. Ely

Name

Cities Service Oil Company

Company

District Superintendent

Title

APPROVED:
OIL CONSERVATION COMMISSION

Roy Yarrrough

Name

Title

Date

I hereby swear or affirm that the information given above is true and correct.

Name

Position District Superintendent

Representing Cities Service Oil Company

Company or Operator

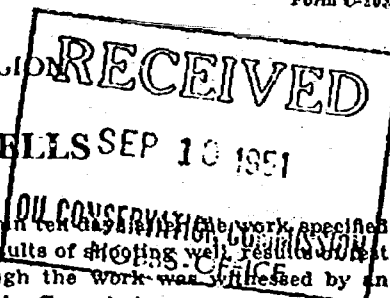
Address Drawer G, Hobbs, New Mexico

ORIGINAL

Form C-102

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS SEP 10 1951



Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

September 5, 1951

Date

Hobbs, New Mexico

Place

Following is a report on the work done and the results obtained under the heading noted above at the

CITIES SERVICE OIL COMPANY

Company or Operator

THOMAS

Lease

Well No. 2

In the

SW SW N E

of Sec. 19

T. 24-S

R. 37-E

N. M. P. M.

LANGLIE-MATTIX

Pool

LEA

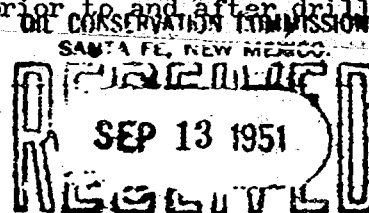
County.

The dates of this work were as follows: September 2 and 3, 1951

Notice of intention to do the work was ~~1/1/51~~ submitted on Form C-102 on September 4, 1951, 19 51, and approval of the proposed plan was ~~1/1/51~~ obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

This well was drilled to a total depth of 1205' in Anhydrite. Ran 28-3/4 joints of 8-5/8" 8R thd. J-55 casing 1194.01' and set at 1203.76' and cemented with 625 sacks of cement. Plug down at 1:30 P. M. 9-2-51. Cement circulated. The cement was allowed to set 24 hours 1000# pressure applied with all valves closed, with no drop in pressure during a 30 minute period. Test was made prior to and after drilling plug. Drilling was then resumed.



Witnessed by H. E. Massey Cities Service Oil Company District Engineer
Name Company Title

APPROVED:
OIL CONSERVATION COMMISSION

Roy Yunker
Oil & Gas Inspector Name
Title

SEP 10 1951

Date

19

I hereby swear or affirm that the information given above is true and correct.

Name H. E. MasseyPosition District EngineerRepresenting Cities Service Oil Company
Company or OperatorAddress Drawer G, Hobbs, New Mexico

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON

OIL CONSERVATION COMMISSION
WELLS-OFFICE

Form O-103

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS	X	REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL			

August 31, 1951

Hobbs, New Mexico

Date

Place

Following is a report on the work done and the results obtained under the heading noted above at the

Cities Service Oil Company

Thomas

Well No. 2

In the

Company or Operator

Lease

SW SW NE

of Sec. 19

T. 24-S

R. 37-E

N. M. P. M.

Langlie-Mattix

Pool

Lea

County.

The dates of this work were as follows:

August 31, 1951

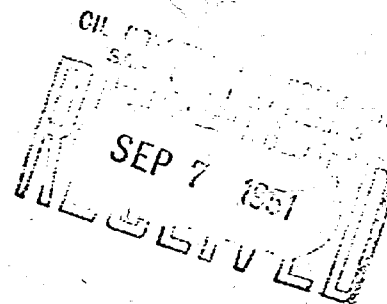
101

Notice of intention to do the work was (~~received~~) submitted on Form G-101 on July 31, 1951.

and approval of the proposed plan was (~~obtained~~) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

This well was spudded at 2:00 A. M. August 31, 1951



Witnessed by H. E. Massey

Name

Cities Service Oil Company

Company

District Engineer

Title

APPROVED:

OIL CONSERVATION COMMISSION

H. E. Massey
Name

Name

Oil & Gas Inspector

Title

SEP 4 1951

19

I hereby swear or affirm that the information given above is true and correct.

Name

H. E. Massey

Position District Engineer

Representing Cities Service Oil Company

Company or Operator

Address Drawer G, Hobbs, New Mexico

OIL CONSERVATION COMMISSION

BOX 2045

HOBBS, NEW MEXICO

NOTICE OF GAS CONNECTION

DATE July 18, 1955

This is to notify the Oil Conservation Commission that connection for
the purchase of gas from the Cities Service Oil Co., Thomas
Operator Lease
2-G, 19-24-37, Jalmat, El Paso Natural Gas Company
Well Unit S. - T. & R. Pool Name of Purchaser,

was made on February 5, 1952.
Date

EL PASO NATURAL GAS COMPANY
Purchaser

A. F. Fuller
A. F. Fuller Representative

Assistant Chief Field Dispatcher
Title

cc: To operator
Oil Conservation Commission - Santa Fe

new well

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. BOX 2045

HOBBS, NEW MEXICO

June 30, 1955

TO:

Cities Service Oil Co.

Box 97

Hobbs, New Mexico

This is:

A New gas well ☐
An Oil well converted to gas ☒ L Mtx. ☐
An Oil-Gas dual ☐
A Gas-Gas dual ☐

Gentlemen:

Form C-104 has been received on your Thomas #2 -G 19-24-37
Lease and Well No. S.T.R.

1. And a 160 acre allowable will be assigned in the Jalmar

Pool under NSP Order No. 113.

2. No gas allowable can be assigned this well for the following reasons:

☐ Unorthodox location (Order R-520 Rule 3)
☐ Non-standard proration unit (Order R-520 Rule 5)

NE 14 19-24-37

OIL CONSERVATION COMMISSION

S. J. Stanley
S. J. Stanley

cc/ Transporter EP

hs

March 7, 1955

Cities Service Oil Co.

Box 97

Hobbs, New Mexico

GOR- 578,000
Date- 3-21-54

Gentlemen:

A review of the records for your Thomas 2 19-24-37
in the Langlie-Mattix Pool, which is listed in the Oil Proration Schedule
with a Gas Oil Ratio in excess of 100,000-1, indicates that this well should
be re-classified as a gas well in the Jalmat Pool. It is our
intention, therefore, to remove this well from the Oil Proration Schedule, effective
April 30th, 1955 and in order that there may be no delay in its being assigned an
allowable on the gas proration schedule, you are hereby instructed to make
application to the Director of the Oil Conservation Commission in Santa Fe for a
non-standard gas proration unit. Upon receipt of an NSP Order you will please
file with this office Form C-110 in quadruplicate showing the change in pool name
and a gas well plat in duplicate showing the acreage dedicated to this well.

This matter should be given your very prompt attention so that there may be
no lapse of time in the transfer of the well from the Oil Schedule to the Gas
Schedule.

Yours very truly,

OIL CONSERVATION COMMISSION

S. J. Stanley

ALP/he

Ccopy: OCC-Santa Fe.
Transporter

OIL CONSERVATION COMMISSION

BOX 2045

HOBBS, NEW MEXICO

MAIL ROOM
MAR 21 1956
OCC

Cities Service Oil Co.
Box 97
Hobbs, New Mexico

Date March 19, 1956

Gentlemen:

An incidental oil allowable is currently being assigned to your
Thomas lease, Well No. 2-G, S.T.R.
19-24-37, Pool Jalnat which is classified
as a gas well and currently listed in the gas proration schedule. Due
to the fact that the definition of a gas well is determined by the Gas-
Oil Ratio it is necessary for the Commission to have complete information
in the file to support the status of the well.

With this in mind you are hereby directed to conduct a Gas-Oil Ratio
Test on the above numbered well by April 10, 1956 date and submit
the result of the test on form C-116 within 15 days of the date of the
test. You are also requested to notify the Commission at least 24 hours
prior to the beginning of the test period.

Yours very truly,

OIL CONSERVATION COMMISSION

A. L. Porter, Jr.
A. L. Porter, Jr.
Proration Manager

FORMATION RECORD

FROM	TO	THICKNESS IN FEET	FORMATION
0'	165'	165'	Caliche and red bed
165'	540'	375'	Red bed and shale
540'	762'	222'	Red bed and red rock
762'	1110'	348'	Red bed and sand
1110'	1185'	75'	Red bed and shale
1185'	1295'	110'	Anhydrite
1295'	1360'	65'	Anhydrite and salt
1360'	1426'	66'	Anhydrite and sand
1426'	2300'	874'	Salt, anhy and sand
2300'	2770'	470'	Salt and anhy
2770'	2819'	49'	Anhydrite
2819'	2851'	32'	Anhydrite and lime
2851'	3101'	250'	Lime
3101'	3140'	39'	Lime and sand
3140'	3680'	540'	Lime
			DST: #1 Tested 3159' to 3210' 1" TC 1/2" BC. Tool open 6 hours. Gas to surface in 20 minutes with good blow throughout test. Recovered 510' drilling fluid, IFP 0#, FFP 160#, 30 minute SIP 980#, MCP 1540#.
			DST #2. Tested 3366' to 3456', gas to surface in 20 minutes, mud in 20 minutes, mud cleaned up to dry gas in 1 hour!
			DST #3. Tested 3582' to 3680', 1" TC 1/2" BC, tool open 2 hours. SI 20 minutes for BU. Faint blow of air throughout test. Recovered 100' gas cut drilling fluid. IFP 0#, FFP 0#, BUP 75#, MCP 1675#.
			<u>Formation Tops</u>
			Anhydrite 1185'
			Brown lime 2862'
			Yates 2962'
			Seven Rivers 3256'
			Queen 3625'
			T.D. 3680'

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
11 1/4"	8-5/8"	1203.76'	625	Plug		
7-7/8"	5 1/2"	2870'	250	Plug		

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth Set _____

Adapters—Material _____ Size _____

RECORD OF SHOOTING OR CHEMICAL TREATMENT

SIZE	SHELL USED	EXPLOSIVE OR CHEMICAL USED	QUANTITY	DATE	DEPTH SHOT OR TREATED	DEPTH CLEANED OUT

Results of shooting or chemical treatment This well was neither shot nor acidized

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

TOOLS USED

Rotary tools were used from 0 feet to 3680 feet, and from _____ feet to _____ feet.

Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet.

PRODUCTION

Put to producing _____, 19____

The production of the first 24 hours was _____ barrels of fluid of which _____ % was oil; _____ %

emulsion; _____ % water; and _____ % sediment. Gravity, Be _____

If gas well, cu. ft. per 24 hours 1477 MCF Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. _____

EMPLOYEES

_____, Driller _____, Driller

_____, Driller _____, Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this 28th

day of September, 1951, 19____

Fred Lawson Notary Public

My Commission expires Feb. 8, 1954

Hobbs, New Mexico

9-28-51

Place

Date

Name [Signature]

Position District Superintendent

Representing Cities Service Oil Company
Company or Operator:

Address Drawer G., Hobbs, New Mexico

[illegible]

Santa Fe, New Mexico

OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

RECEIVED
OCT 1 - 1951

WELL RECORD

OIL CONSERVATION COMMISSION
HOBBS OFFICE

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or its proper agent not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). **SUBMIT IN TRIPLICATE.**

AREA 640 ACRES
LOCATE WELL CORRECTLY

Cities Service Oil Company

Thomas

Well No. 2 in SWSWNE of Sec. 19, T. 24-S
 R. 37-E, N. M. P. M., Langlie-Mattix Field, Lea County.
 Well is 2310 feet south of the North line and 2210 feet west of the East line of SEC. 19-24-37
 If State land the oil and gas lease is No. - Assignment No. -
 If patented land the owner is Mrs. Ada E. Thomas, Address Jal, New Mexico
 If Government land the permittee is -, Address -
 The Lessee is Cities Service Oil Company, Address Bartlesville, Oklahoma
 Drilling commenced August 31 19 51 Drilling was completed September 26 19 51
 Name of drilling contractor 'Permian' Drilling Corp, Address Odessa, Texas
 Elevation above sea level at top of casing 3293' feet.
 The information given is to be kept confidential until - 19 -

OIL SANDS OR ZONES

No. 1, from 2962 to 3680 No. 4, from _____ to _____
 No. 2, from _____ to _____ No. 5, from _____ to _____
 No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from - 0 - to - 0 - feet. - 0 -

No. 2, from _____ to _____ feet. _____

No. 3, from _____ to _____ feet. _____

No. 4, from _____ to _____ feet. _____

OIL COMMISSION
SANTA FE
OCT 18 1951

CASING RECORD

[illegible]

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLATS

FORM CO-123
Revised 5/1/57

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

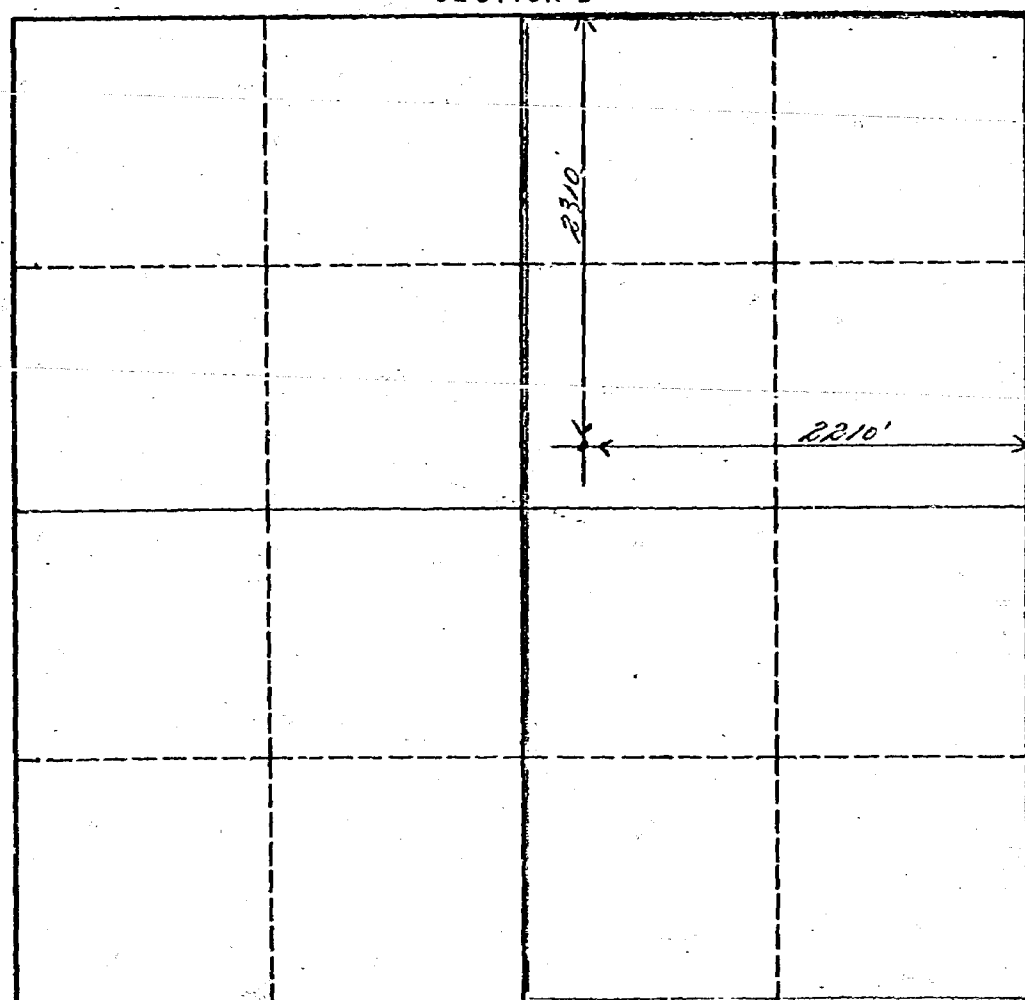
SECTION A

Operator Cities Service Petroleum Company		Lease Thomas		Well No. 2:09
Unit Letter G	Section 19	Township 24-S	Range 37-E	County Lea
Actual Footage Location of Well: 2310 feet from the North line and 2210 feet from the East line				
Ground Level Elev. 3293'	Producing Formation Yates - Seven Rivers	Pool Jalmat	Dedicated Acreage: 320 Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES ☒ NO ☐ ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES ☐ NO ☐ If answer is "yes," Type of Consolidation _____
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

SECTION B



CERTIFICATION

I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief.

Name *[Signature]*
Position District Superintendent
Company Cities Service Petroleum Co.
Date May 21, 1962

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed _____
Registered Professional Engineer
and/or Land Surveyor

Certificate No. _____

NUMBER OF COPIES RECEIVED DISTRIBUTION BUREAU OF LAND MANAGEMENT U.S. GEOLOGICAL SURVEY LAND OFFICE TRANSPORTER PRODUCTION OFFICE OPERATOR		NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS		FORM C-110 (Rev. 7-60)
FILE THE ORIGINAL AND 4 COPIES WITH THE APPROPRIATE OFFICE				
Company or Operator			Lease No. 1001 100 100 10 32	Well No. 2
Unit Letter G	Section 19	Township 24-S	Range 37-E	County Lea
Pool Jalmat (Gas)			Kind of Lease (State, Fed, Fee) Patented	
If well produces oil or condensate give location of tanks		Unit Letter *	Section 19	Range 37-E
Authorized transporter of oil <input type="checkbox"/> or condensate <input checked="" type="checkbox"/>			Address (give address to which approved copy of this form is to be sent)	
Cities Service Petroleum Company - Trucks			Leggett Building - Midland, Texas	
Is Gas Actually Connected? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Authorized transporter of casing head gas <input type="checkbox"/> or dry gas <input checked="" type="checkbox"/>		Date Connected	Address (give address to which approved copy of this form is to be sent)	
El Paso Natural Gas Company			Box 1492 - El Paso, Texas	
If gas is not being sold, give reasons and also explain its present disposition:				
REASON(S) FOR FILING (please check proper box)				
New Well <input type="checkbox"/> Change in Ownership <input type="checkbox"/> Change in Transporter (check one) Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/> Casing head gas <input type="checkbox"/> Condensate <input checked="" type="checkbox"/>				
Change transporter from: Cities Service Oil Company - Trucks To: Cities Service Petroleum Company - Trucks				
Remarks <div style="text-align: center;"> * Tanks located on lease </div> <div style="text-align: right;"> CITIES SERVICE OIL COMPANY effective December 31, 1962 </div>				
The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.				
Executed this the _____ day of _____, 19____.				
OIL CONSERVATION COMMISSION			By	
Approved by 			Lucas	
Title			Title	
Date			Company Cities Service Petroleum Company	
			Address Box 1492 - El Paso, Texas	

COPIES RECEIVED	
TRIBUTION	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

<p align="center">SUNDRY NOTICES AND REPORTS ON WELLS</p> <p align="center"><small>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)</small></p>		<p>5a. Indicate Type of Lease State <input type="checkbox"/> Fee <input checked="" type="checkbox"/></p>
<p>1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/></p>		<p>7. Unit Agreement Name</p>
<p>2. Name of Operator Cities Service Oil Company</p>		<p>8. Farm or Lease Name Thomas</p>
<p>3. Address of Operator Box 1919, Midland, Texas 79702</p>		<p>9. Well No. 2</p>
<p>4. Location of Well UNIT LETTER <u>G</u> <u>2310</u> FEET FROM THE <u>North</u> LINE AND <u>2210</u> FEET FROM THE <u>East</u> LINE, SECTION <u>19</u> TOWNSHIP <u>24S</u> RANGE <u>37E</u> NMPM.</p>		<p>10. Field and Pool, or Wildcat Jalmat-Yates 7 Rvs</p>
<p>15. Elevation (Show whether DF, RT, GR, etc.) 3293 GL</p>		<p>12. County Lea</p>

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	
		OTHER <u>Relocating surface and intermediate casing valves, testing above ground, and filling cellar w/sand.</u> <input checked="" type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

The surface and intermediate casing testing valves located in the cellar were removed, a 2" riser installed and the valves have been relocated above the ground. Both of the valves are marked as to which casing string they service and the cellar has been filled with sand.

Inspected by Melvin Crossland w/NMOCC

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED <u>Robert A. Johnson, Jr.</u>	TITLE <u>Petroleum Engineer</u>	DATE <u>April 11, 1977</u>
APPROVED BY <u>M. Crossland</u>	TITLE <u>OIL & GAS INSPECTOR</u>	DATE <u>APR 15 1977</u>

CONDITIONS OF APPROVAL, IF ANY:

DISTRIBUTION	
AMT A FE	
ILE	
S.G.S.	
AND OFFICE	
TRANSPORTER	OIL
	GAS
OPERATOR	
PRORATION OFFICE	

**NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS**

Form C-104
Supersedes Old C-104 and
Effective 1-1-65

I. OPERATOR
Operator Cities Service Company
Address P.O. Box 1919 - Midland, Texas 79702
Reason(s) for filing (Check proper box)
New Well ☐ Change in Transporter of: Oil ☐ Dry Gas ☐
Recompletion ☐ Casinghead Gas ☐ Condensate ☐
Change in Ownership ☒ Other (Please explain) change of operator's name is effective July 1, 1977.

If change of ownership give name and address of previous owner Cities Service Oil Company - P.O. Box 1919 - Midland, Texas 79702

II. DESCRIPTION OF WELL AND LEASE

Lease Name <u>Thomas</u>	Well No. <u>2</u>	Pool Name, including Formation <u>Elmest Tonsill Yates 7 River</u>	Kind of Lease State, Federal or Fee <u>Fee</u>	Lease No. <u>—</u>
Location Unit Letter <u>G</u> : <u>2310</u> Feet From The <u>North</u> Line and <u>2210</u> Feet From The <u>East</u> Line of Section <u>19</u> Township <u>24S</u> Range <u>37E</u> , NMPM, <u>Lea</u> County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> <u>Cities Service Company</u>	Address (Give address to which approved copy of this form is to be sent) <u>Box 1919 - Midland, Texas 79701</u>
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> <u>El Paso Natural Gas Company</u>	Address (Give address to which approved copy of this form is to be sent) <u>Box 1384 - Jol, New Mexico 88252</u>
If well produces oil or liquids, give location of tanks. Unit <u>G</u> Sec. <u>19</u> Twp. <u>24S</u> Rge. <u>37E</u>	Is gas actually connected? <u>yes</u> When <u>—</u>

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Resv.	Diff. Resv.
Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.					
Elevations (DF, REB, RT, GR, etc.)	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth					
Perforations	Depth Casing Shoe							
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT					

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

E. Spulder
(Signature)
Region Operations Manager
(Title)
6/10/77
(Date)

OIL CONSERVATION COMMISSION

APPROVED JUL 15 1977, 19
BY [Signature]
TITLE SUPERVISOR DISTRICT 1

This form is to be filed in compliance with RULE 1104.
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.
All sections of this form must be filled out completely for allowable on new and recompleted wells.
Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.
Separate Forms C-104 must be filed for each well in multiple.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

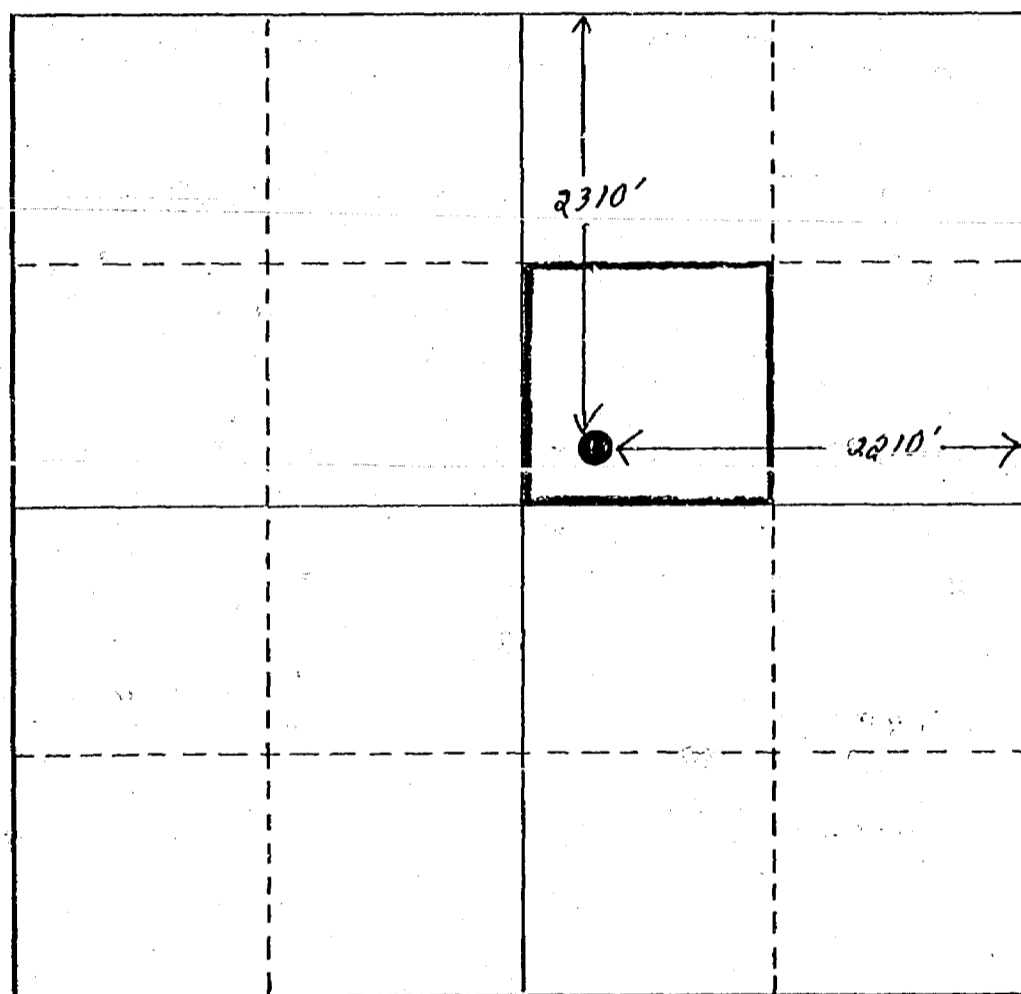
Operator Cities Service Company		Lease Thomas		Well No. 2
Unit Letter G	Section 19	Township 24-S	Range 37-E	County Lea
Actual Footage Location of Well: 2310 feet from the North line and 2210 feet from the East line				
Ground Level Elev: 3293'	Producing Formation Yates, Seven Rivers		Pool Jalmat	Dedicated Acreage: 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name *Richard*
Position Region Operations Manager

Company
Cities Service Company

Date
August 10, 1977

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed _____

Registered Professional Engineer and/or Land Surveyor
[Signature]

Certificate No. _____

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
OPERATOR	
PRORATION OFFICE	

NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
 Supersedes Old C-104 and C-110
 Effective 1-1-65

I. OPERATOR
 Operator
 Cities Service Company
 Address
 P. O. Box 1919, Midland, Texas

Reason(s) for filing (Check proper box)
 New Well ☐ Change In Transporter of:
 Recompletion ☐ *Oil ☒ Dry Gas ☐
 Change In Ownership ☐ *Casinghead Gas ☒ Condensate ☐ Other (Please explain)
 *This well has been reclassified as an oil well. 11-9/11/77

If change of ownership give name and address of previous owner _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name Thomas	Well No. 2	Pool Name, Including Formation Jalpat - Yates, Seven Rivers	Kind of Lease State, Federal or Fee	Fee	Lease No. ---
Location Unit Letter G ; 2310 Feet From The North Line and 2210 Feet From The East Line of Section 19 Township 24-S Range 37-E , NMPM, Lea County					

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/> Cities Service Company	Address (Give address to which approved copy of this form is to be sent) P. O. Box 1919, Midland, Texas 79702
Name of Authorized Transporter of Casinghead Gas <input checked="" type="checkbox"/> or Dry Gas <input type="checkbox"/> El Paso Natural Gas Company	Address (Give address to which approved copy of this form is to be sent) P. O. Box 1384, Jal, New Mexico 88252
If well produces oil or liquids, give location of tanks. Unit G Sec. 19 Twp. 24S Rge. 37E	Is gas actually connected? When Yes *

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

E. J. J. J.
 (Signature)
 Region Operations Manager
 (Title)
 August 10, 1977
 (Date)

OIL CONSERVATION COMMISSION

APPROVED _____, 19____
 BY John W. Remyer
 Geologist
 TITLE _____

This form is to be filed in compliance with RULE 1104.
 If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.
 All sections of this form must be filled out completely for allowable on new and recompleted wells.
 Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.
 Separate Forms C-104 must be filed for each pool in multiple

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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS <small>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)</small>	
1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER	7. Unit Agreement Name
2. Name of Operator Cities Service Company	8. Farm or Lease Name Thomas
3. Address of Operator P.O. Box 1919 Midland, TX 79702	9. Well No. 2
4. Location of Well UNIT LETTER <u>G</u> <u>2310</u> FEET FROM THE <u>North</u> LINE AND <u>2210</u> FEET FROM THE <u>East</u> LINE, SECTION <u>19</u> TOWNSHIP <u>24S</u> RANGE <u>37E</u> NMPM.	10. Field and Pool, or Wildcat Jalmat-Yates 7 Rivers
15. Elevation (Show whether DF, RT, GR, etc.) 3293' GL 00 YS	12. County Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data <u>11/79 TEI</u>	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input checked="" type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	CASING TEST AND CEMENT UGR <input type="checkbox"/>
PLUG AND ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
CHANGE PLANS <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
OTHER <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

This well was TA 6/30/78 due to well dead. A study for possible recompletion is being made.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.		
SIGNED <u>E. J. Pender</u>	TITLE <u>Region Oper. Mgr.</u>	DATE <u>11/26/79</u>
APPROVED BY <u>James L. Pender</u>	TITLE <u>SUPERVISOR DISTRICT 2</u>	DATE <u>NOV 29 1979</u>
CONDITIONS OF APPROVAL, IF ANY: <u>Expires 11/30/80</u>		

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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

<p align="center">SUNDRY NOTICES AND REPORTS ON WELLS</p> <p align="center"><small>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)</small></p>		<p>5a. Indicate Type of Lease State <input type="checkbox"/> Fee <input checked="" type="checkbox"/></p> <p>5. State Oil & Gas Lease No.</p>
<p>1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER</p> <p>2. Name of Operator Cities Service Company</p> <p>3. Address of Operator Box 1919 Midland, TX 79702</p> <p>4. Location of Well UNIT LETTER G 2310 FEET FROM THE North LINE AND 2210 FEET FROM THE East LINE, SECTION 19 TOWNSHIP 24S RANGE 37E NMPM.</p>	<p>7. Unit Agreement Name</p> <p>8. Farm or Lease Name Thomas</p> <p>9. Well No. 2</p> <p>10. Field and Pool, or Wildcat Jalmat-Yates 7 Rivers</p>	
<p>15. Elevation (Show whether DF, RT, GR, etc.) 3293' GL</p>		<p>12. County Lea</p>

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input checked="" type="checkbox"/> Sell gas from well.	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

CITIES SERVICE COMPANY will open this well to produce gas into El Paso Natural Gas Company's gas gathering system February 12, 1980.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED <u><i>[Signature]</i></u>	TITLE <u>Region Oper. Mgr.</u>	DATE <u>2/11/80</u>
APPROVED BY <u><i>[Signature]</i></u>	TITLE <u>SUPERVISOR DISTRICT</u>	DATE <u>FEB 14 1980</u>
CONDITIONS OF APPROVAL, IF ANY:		

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

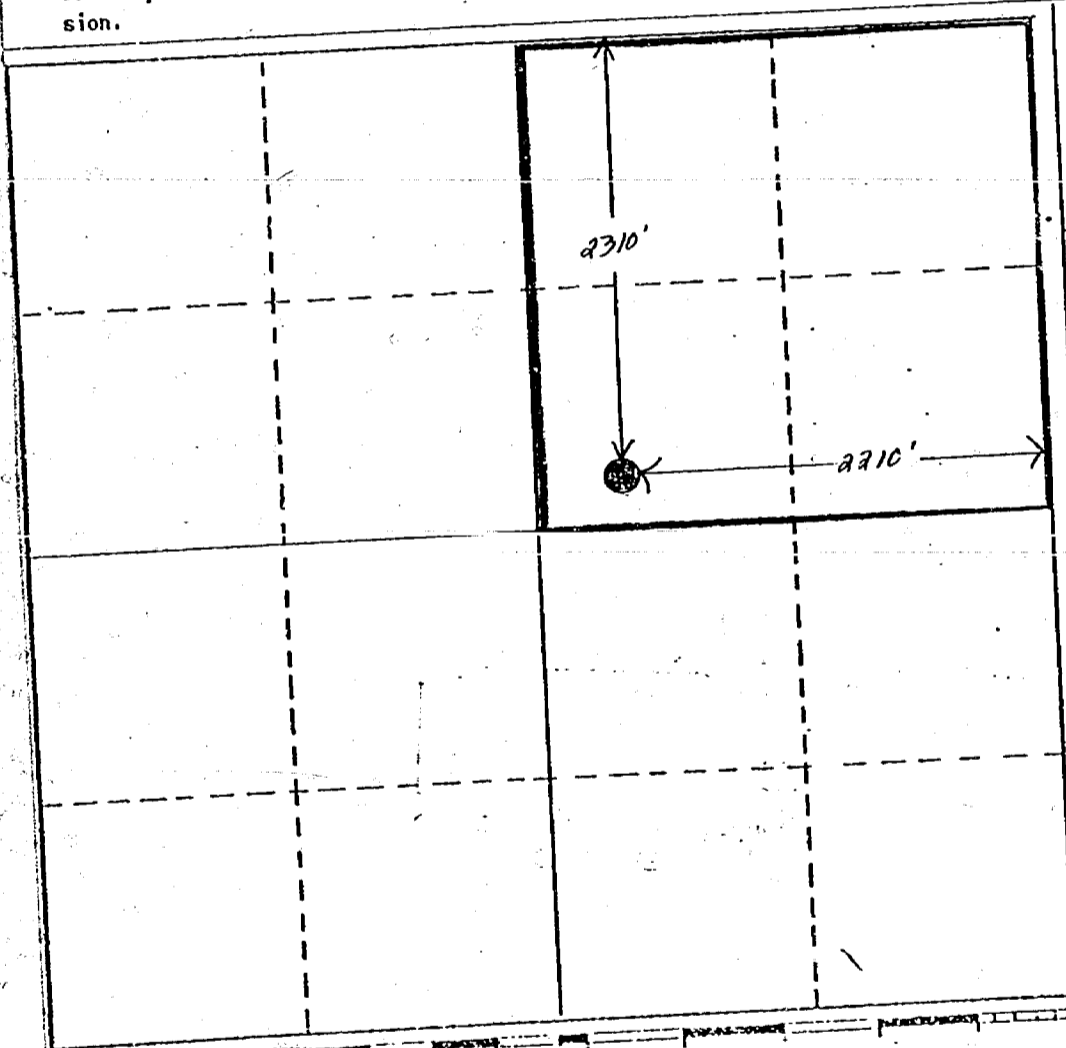
Operator Cities Service Company			Lease Thomas		Well No. 2
Unit Letter G	Section 19	Township 24S	Range 37E	County Lea	
Actual Footage Location of Well: 2310 feet from the North line and 2210 feet from the East line					
Ground Level Elev. 3293'	Underlying Formation Yates, Seven Rivers		Pool Jalmar	Dedicated Acreage: 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



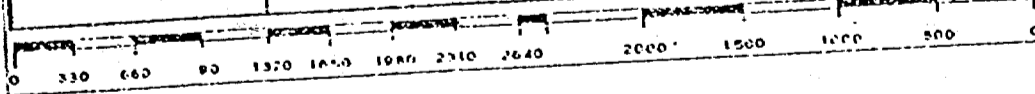
CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name	<i>E. Spaulder</i>
Position	Region Operation Manager
Company	Cities Service Company
Date	February 19, 1980

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed	
Registered Professional Engineer and/or Land Surveyor	
Certificate No.	



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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. Unit Agreement Name
2. Name of Operator Cities Service Company	8. Farm or Lease Name Thomas
3. Address of Operator Box 1919 Midland, TX 79702	9. Well No. 2
4. Location of Well UNIT LETTER <u>G</u> <u>2310</u> FEET FROM THE <u>North</u> LINE AND <u>2210</u> FEET FROM THE <u>East</u> LINE, SECTION <u>19</u> TOWNSHIP <u>24S</u> RANGE <u>37E</u> NMPM.	10. Field and Pool, or Wildcat Jalmat-Yates 7 Rivers
15. Elevation (Show whether DF, RT, GR, etc.) 3293' GL	12. County Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <u>Clean out & frac lower Jalmat zone.</u> <input checked="" type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

1. MIRU - install BOP.
2. Pull 2-3/8" tbg & RIH w/4-3/4" bit, DC, on 2-3/8" tbg. Load hole with low loss fluid or equivalent to establish circulation to clean hole & loading annulus when treating.
3. CO to PBTD 3480'.
4. Circulate hole clean & POOH.
5. Run caliper svy. 3480' to 5 1/2" csg to determine pkr seat 3400' to 3420'.
6. RIH w/ OH pkr with 136" seal element on 2-3/8" tbg & seating nipple. Set at best pkr seat in 3400-3420' interval.
7. Load annulus w/wtr. & attempt to maintain 300-500 psi & acidize down tbg maintaining not more than 1500 psi differential across pkr. If treatment communicates to annulus, move pkr up hole until pkr seat is located & the well can be acidized without communication to annulus. SI overnight.
8. Frac lower Jalmat zone.
9. Recover load & test.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED <u>E. J. J. J.</u>	TITLE <u>Region Oper. Mgr.</u>	DATE <u>2/29/80</u>
APPROVED <u>Jesse J. Clement</u>	TITLE <u>OIL & GAS INSPECTOR</u>	DATE <u>MAR 6 1980</u>

CONDITIONS OF APPROVAL, IF ANY:

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LAND OFFICE	
TRANSPORTER	OIL GAS
OPERATOR	
PRODUCTION OFFICE	

**NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS**

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-85

I. OPERATOR
CITIES SERVICE COMPANY
 Address
Box 1919 MIDLAND, TX 79702
 Reason(s) for filing (Check proper box)
 New Well ☐ Change in Transporter of:
 Recompletion ☐ Oil ☐ Dry Gas ☒
 Change in Ownership ☐ Casinghead Gas ☐ Condensate ☒ Other (Please explain)

If change of ownership give name and address of previous owner **CITIES SERVICE COMPANY, Box 1919, MIDLAND, TX 79702**

II. DESCRIPTION OF WELL AND LEASE

Lease Name THOMAS	Well No. 2	Pool Name, Including Formation JALMAT-YATES 7 RIVERS	Kind of Lease State, Federal or Fee FEE	Lease No.
Location Unit Letter G : 2310 Feet From The NORTH Line and 2210 Feet From The EAST Line of Section 19 Township 24S Range 37E , NMPM, LEA County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> CITIES SERVICE COMPANY	Address (Give address to which approved copy of this form is to be sent) Box 1919, MIDLAND, TX 79702
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> EL PASO NATURAL GAS COMPANY	Address (Give address to which approved copy of this form is to be sent) Box 1384, JAL, NM 88252
If well produces oil or liquids, give location of tanks. Unit 6 Sec. 19 Twp. 24S Rge. 37E	Is gas actually connected? YES When 2-12-80

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion -- (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.	Total Depth			P.B.T.D.			
Elevations (DF, RKB, RT, CR, etc.)	Name of Producing Formation	Top Oil/Gas Pay			Tubing Depth			
Perforations						Depth Casing Shoe		
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET			SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

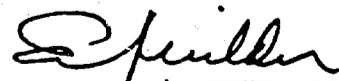
Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

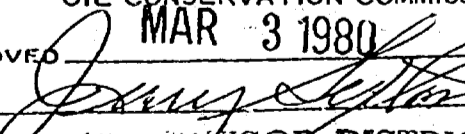
GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.


 (Signature)
REGION OPERATIONS MANAGER
 (Title)
2/27/80
 (Date)

OIL CONSERVATION COMMISSION
MAR 3 1980
 APPROVED _____
 BY 
 TITLE **SUPERVISOR DISTRICT 1**

This form is to be filed in compliance with RULE 1104.
 If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.
 All sections of this form must be filled out completely for allowable on new and recompleted wells.
 Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.
 Separate Forms C-104 must be filed for each pool in multiply completed wells.

OIL CONSERVATION DIVISION
P. O. BOX 1989
HOBBS, NEW MEXICO 88240

NOTICE OF GAS CONNECTION

DATE 2/22/80

This is to notify the Oil Conservation Division that connection for the purchase of
gas from the _____ Cities Service Oil Co.
OPERATOR

Thomas 2

LEASE & WELL

Lea

COUNTY

G 19-24-37

UNIT S-T-R

Jalmat Yates

El Paso Natural Gas Co.

POOL

NAME OF PURCHASER

was made on

February 12, 1980

DATE

60317

01

SITE CODE & SITE WELL NUMBER

El Paso Natural Gas Co.

PURCHASER

M H Metchum
REPRESENTATIVE

Assistant Chief Division Dispatcher

TITLE

MEM: b1

cc: Operator

Oil Conservation Division - Santa Fe, NM

H. P. Logan

M. E. McFuen

R. L. Tabb

Proration Dept.

Measurement Dept.

Earl Smith

File



United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Drawer 1857
Roswell, New Mexico 88201

APR 29 1976
OIL CONSERVATION COMM.
Santa Fe

April 29, 1976
440

Reserve Oil and Gas Company
Attention: Mr. Erd M. Johnson
First Savings Building
Midland, Texas 79701

Gentlemen:

Your letter of April 29, 1976, transmitted two executed copies of a cooperative lease line agreement in which Reserve Oil and Gas Company as operator of the Cooper Jal unit and Skelly Oil Company as operator of the Myers Langlie Mattix unit, will cooperate in water flooding involving the common boundary between sec. 18, T. 24S., R. 37E., Cooper Jal unit, and sec. 7, T. 24S., R. 37E., Myers Langlie Mattix unit, Lea County, New Mexico.

Our letter of March 1, 1976, gave approval of the proposed lease line agreement. Inasmuch as you have submitted two fully executed copies of the cooperative lease line agreement, such agreement has been approved by the Acting Area Oil and Gas Supervisor on this date. You are requested to notify all interested parties of this approval.

Sincerely yours,

(ORIG. SGD.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Area Oil and Gas Supervisor

cc:
Skelly Oil Company
Attn: Leland Franz
P. O. Box 1351
Midland, TX 79701

Hobbs (w/cy agr.)
NMOCC, Santa Fe (ltr. only) ← This Copy for
Com. of Pub Lands, Santa Fe (ltr. only)

RLindau:dlk

UNIT OPERATING AGREEMENT

COOPER JAL UNIT

LEA COUNTY, NEW MEXICO

UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

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UNIT OPERATING AGREEMENT

COOPER JAL UNIT
Lea County, New Mexico

THIS AGREEMENT, entered into as of the 15th day of January, 1970, by the parties who have signed the original of this instrument, a counterpart thereof, or other instrument agreeing to be bound by the provisions hereof;

WITNESSETH:

WHEREAS, the parties hereto as Working Interest Owners have executed, as of the date hereof, an agreement entitled, "Unit Agreement, Cooper Jal Unit, Lea County, New Mexico", herein referred to as "Unit Agreement", which among other things, provides for a separate agreement to be entered into by Working Interest Owners to provide for the development and operation of the Unit Area as therein defined;

NOW, THEREFORE, in consideration of the mutual agreements herein set forth, it is agreed as follows:

ARTICLE 1

CONFIRMATION OF UNIT AGREEMENT

1.1 CONFIRMATION OF UNIT AGREEMENT. The Unit Agreement is hereby confirmed and by reference made a part of this agreement. The definitions in the Unit Agreement are adopted for all purposes of this agreement. If there is any conflict between the Unit Agreement and this agreement, the Unit Agreement shall govern.

ARTICLE 2

EXHIBITS

2.1 EXHIBITS. The following exhibits are incorporated herein by reference:

2.1.1 EXHIBITS A, B AND C of the Unit Agreement.

2.1.2 EXHIBIT D, attached hereto, which is a schedule showing the Working Interest of each Working Interest Owner in each Tract, the percentage of total Unit Participation attributable to each such interest, and the total Unit Participation of each Working Interest Owner. Exhibit D, or a revision thereof,

shall not be conclusive as to the information therein, except it may be used as showing the Unit Participations of the Working Interest Owners for purposes of this agreement until shown to be in error or is revised as herein authorized.

2.1.3 EXHIBIT E, attached hereto, which is the Accounting Procedure applicable to Unit Operations. If there is any conflict between this agreement and Exhibit E, this agreement shall govern.

2.1.4 EXHIBIT F, attached hereto, which contains insurance provisions applicable to Unit Operations.

2.2 REVISION OF EXHIBITS. Whenever Exhibits A, B and C are revised, Exhibit D shall be revised accordingly and be effective as of the same date. Unit Operator shall also revise Exhibit D from time to time as required to conform to changes in ownership of which Unit Operator has been notified as provided in the Unit Agreement.

ARTICLE 3

SUPERVISION OF OPERATIONS BY WORKING INTEREST OWNERS

3.1 OVERALL SUPERVISION. Working Interest Owners shall exercise overall supervision and control of all matters pertaining to Unit Operations pursuant to this agreement and the Unit Agreement. In the exercise of such authority, each Working Interest Owner shall act solely in its own behalf in the capacity of an individual owner and not on behalf of the owners as an entirety.

3.2 SPECIFIC AUTHORITIES AND DUTIES. The matters with respect to which the Working Interest Owners shall decide and take action shall include, but not be limited to, the following:

3.2.1 METHOD OF OPERATION. The method of operation, including any type of pressure maintenance, secondary recovery, or other recovery program to be employed.

3.2.2 DRILLING OF WELLS. The drilling of any well whether for production of Unitized Substances, for use as an injection well, or for other purposes.

3.2.3 WELL RECOMPLETIONS AND CHANGE OF STATUS. The recompletion, abandonment, or change of status of any well in the Unit Area, or the use of any well for injection or other purposes, except for well servicing or stimulation work on the existing completion interval not exceeding Unit Operator's authority for single expenditures.

3.2.4 EXPENDITURES. The making of any single expenditure in excess of Ten Thousand Dollars (\$10,000.00); provided that, approval by Working Interest Owners of the drilling, reworking, deepening, or plugging back of any well shall include approval of all necessary expenditures required therefor, and for completing, testing and equipping the same, including necessary flow lines, separators, and lease tankage.

3.2.5 DISPOSITION OF UNIT EQUIPMENT. The selling or otherwise disposing of any major item of surplus Unit Equipment, if the current list price of new equipment similar thereto is Three Thousand Five Hundred Dollars (\$3,500.00) or more. All dispositions will be made in accordance with Exhibit E.

3.2.6 APPEARANCE BEFORE A COURT OR REGULATORY AGENCY. The designating of a representative to appear before any court or regulatory agency in matters pertaining to Unit Operations; provided that, such designation shall not prevent any Working Interest Owner from appearing in person or from designating another representative in its own behalf.

3.2.7 AUDITS. The auditing of the accounts of Unit Operator pertaining to Unit Operations hereunder; however, the audits shall

(a) not be conducted more than once each year except upon the resignation or removal of Unit Operator,

(b) be made upon the approval of the majority in interest of Working Interest Owners, other than Unit Operator, at the expense of all Working Interest Owners other than Unit Operator, or

(c) be made at the expense of those Working Interest Owners requesting such audit, if less than a majority in interest of the Working Interest Owners, other than Unit Operator, request such an audit, and

(d) be made upon not less than thirty (30) days' written notice to Unit Operator.

3.2.8 INVENTORIES. The taking of periodic inventories under the terms of Exhibit E.

3.2.9 TECHNICAL SERVICES. The authorizing of charges to the joint account for services by consultants or Unit Operator's technical personnel not covered by the overhead charges provided by Exhibit E.

3.2.10 ASSIGNMENTS TO COMMITTEES. The appointment of committees to study any problems in connection with Unit Operations.

3.2.11 The removal of Unit Operator and the selection of a successor.

3.2.12 The enlargement of the Unit Area.

3.2.13 The adjustment and readjustment of investments.

3.2.14 The termination of the Unit Agreement.

ARTICLE 4

MANNER OF EXERCISING SUPERVISION

4.1 DESIGNATION OF REPRESENTATIVES. Each Working Interest Owner shall in writing inform Unit Operator of the names and addresses of the representative and alternate who are authorized to represent and bind such Working Interest Owner with respect to Unit Operations. The representative or alternate may be changed from time to time by written notice to Unit Operator.

4.2 MEETINGS. All meetings of Working Interest Owners shall be called by Unit Operator upon its own motion or at the request of one or more Working Interest Owners having a total Unit Participation of not less than Ten Percent (10%) of the Unit Participation in effect at the time. No meeting shall be called on less than fourteen (14) days' advance written notice, with agenda for the meeting attached. Working Interest Owners who attend the meeting shall not be prevented from amending items included in the agenda or from deciding the amended item or other items presented at the meeting. The representative of Unit Operator shall be chairman of each meeting.

4.3 VOTING PROCEDURE. Working Interest Owners shall decide all matters coming before them as follows:

4.3.1 VOTING INTEREST. Each Working Interest Owner shall have a voting interest equal to its Unit Participation which is in effect at the time the vote is taken.

4.3.2 VOTE REQUIRED. Except as may otherwise be provided herein or in the Unit Agreement, Working Interest Owners shall act upon and determine all matters coming before them by the affirmative vote of three or more Working Interest Owners having a total of 65 percent (65%) or more of the total voting interest in the unit; provided that if any one Working Interest Owner has a voting interest of more than thirty-five percent (35%), its negative vote or failure to vote shall not defeat the matter being voted on if such matter is supported by a majority of the voting interest unless such Working Interest Owner is supported by the vote of one or more other Working Interest Owners having a total voting interest of at least five percent (5%), and such resulting vote shall be binding on all parties.

4.3.3 VOTE AT MEETING BY NONATTENDING WORKING INTEREST OWNER. Any Working Interest Owner who is not represented at a meeting may vote on any agenda item by letter or telegram addressed to the representative of the Unit Operator if its vote is received prior to the vote on the item, provided such nonattending Working Interest Owner's vote shall not be counted in the vote taken on any item that was amended or altered at the meeting.

4.3.4 POLL VOTES. Working Interest Owners may vote on and decide, by letter or telegram, any matter submitted in writing to Working Interest Owners, if no meeting is requested, as provided in Section 4.2, within seven (7) days after the proposal is sent to Working Interest Owners. Unit Operator will give prompt notice of the results of the voting to all Working Interest Owners.

ARTICLE 5

INDIVIDUAL RIGHTS OF WORKING INTEREST OWNERS

5.1 RESERVATION OF RIGHTS. Working Interest Owners severally reserve to themselves all their rights, except as otherwise provided in this agreement and the Unit Agreement.

5.2 SPECIFIC RIGHTS. Each Working Interest Owner shall have, among others, the following specific rights:

5.2.1 ACCESS TO UNIT AREA. Access to the Unit Area at such Working Interest Owner's own risk at all reasonable times to inspect Unit Operations, all wells, and the records and data pertaining thereto.

5.2.2 REPORTS. The right to receive from Unit Operator, upon written request, copies of all reports to any governmental agency, reports of crude oil runs and stocks, inventory reports, and all other information pertaining to Unit Operations. The cost of gathering and furnishing information not ordinarily furnished by Unit Operator to all Working Interest Owners shall be charged to the Working Interest Owner who requests the information.

ARTICLE 6

UNIT OPERATOR

6.1 INITIAL UNIT OPERATOR. Reserve Oil and Gas Company is hereby designated as Unit Operator.

6.2 RESIGNATION OR REMOVAL. Unit Operator may resign or be removed at any time under procedures prescribed in Section 7 of the Unit Agreement.

6.3 SELECTION OF SUCCESSOR. Upon the resignation or removal of a Unit Operator, a successor Unit Operator shall be selected by Working Interest Owners in the manner prescribed in Section 8 of the Unit Agreement.

ARTICLE 7

AUTHORITIES AND DUTIES OF UNIT OPERATOR

7.1 EXCLUSIVE RIGHT TO OPERATE UNIT. Subject to the provisions of this agreement and to instructions from Working Interest Owners, Unit Operator shall have the exclusive right and be obligated to conduct Unit Operations.

7.2 WORKMANLIKE CONDUCT. Unit Operator shall conduct Unit Operations in a good and workmanlike manner as would a prudent operator under the same or similar circumstances. Unit Operator shall freely consult with Working Interest Owners and keep them informed of all matters which Unit Operator, in the exercise of its best judgment, considers important. Unit Operator shall not be liable to Working Interest Owners for damages, unless such damages result from its gross negligence or willful misconduct.

7.3 LIENS AND ENCUMBRANCES. Unit Operator shall endeavor to keep the lands and leases in the Unit Area free from all liens and encumbrances occasioned by Unit Operations, except the lien of Unit Operator granted hereunder.

7.4 EMPLOYEES. The number of employees used by Unit Operator in conducting Unit Operations, their selection, hours of labor, and compensation shall be determined by Unit Operator. Such employees shall be the employees of Unit Operator.

7.5 RECORDS. Unit Operator shall keep correct books, accounts, and records of Unit Operations.

7.6 REPORTS TO WORKING INTEREST OWNERS. Unit Operator shall furnish to Working Interest Owners periodic reports of Unit Operations as prescribed by the Working Interest Owners.

7.7 REPORTS TO GOVERNMENTAL AUTHORITIES. Unit Operator shall make all reports to governmental authorities that it has the duty to make as Unit Operator.

7.8 ENGINEERING AND GEOLOGICAL INFORMATION. Unit Operator shall furnish to a Working Interest Owner, upon written request, a copy of the log and other engineering and geological data pertaining to wells drilled for Unit Operations.

7.9 EXPENDITURES. Unit Operator is authorized to make single expenditures not in excess of Ten Thousand Dollars (\$10,000.00) without prior approval of Working Interest Owners. If an emergency occurs, Unit Operator may immediately make or incur such expenditures as in its opinion are required to deal with the emergency.

Unit Operator shall report to Working Interest Owners, as promptly as possible, the nature of the emergency and the action taken.

7.10 WELLS DRILLED BY UNIT OPERATOR. All wells drilled by Unit Operator shall be at the usual rates and under usual conditions prevailing in the area. Unit Operator may employ its own tools and equipment under terms and conditions approved by Working Interest Owners.

ARTICLE 8

TAXES

8.1 AD VALOREM TAXES. Beginning with the first of the calendar year after the effective date hereof, Unit Operator after consulting with Working Interest Owners, shall make and file for ad valorem tax purposes all necessary renditions and returns with the proper taxing authorities of governmental subdivisions covering all property of each Working Interest Owner within the Unit Area and used in connection with the development and operation of the Unit Area. Any Working Interest Owner dissatisfied with any proposed rendition or assessment of its interest in property shall have the right, at its own expense, to protest and resist the same. All such ad valorem taxes due and payable on account of real and personal property of each Working Interest Owner located within the Unit Area and used in connection with Unit Operations shall be paid by the Unit Operator for the joint account in the same manner as other costs and expenses of Unit Operations; provided that, if the interest of a Working Interest Owner is subject to a separately assessed overriding royalty interest, production payment, or other interest in excess of a 1/8 royalty, such Working Interest Owner shall be given credit for the reduction in taxes paid resulting therefrom.

8.2 OTHER TAXES. Each Working Interest Owner shall pay or cause to be paid all production, severance, gathering, and other taxes imposed upon or in respect of the production or handling of its share of Unitized Substances.

ARTICLE 9

INSURANCE

9.1 INSURANCE. Unit Operator, with respect to Unit Operations, shall do the following:

9. 1. 1 Comply with the Workmen's Compensation Law of the State of New Mexico.

9. 1. 2 Carry Employer's Liability and other insurance as required by the laws of the State of New Mexico.

9. 1. 3 Carry other insurance as set forth in Exhibit F.

ARTICLE 10

ADJUSTMENT OF INVESTMENTS

10. 1 PERSONAL PROPERTY TAKEN OVER.

10. 1. 1 WELLS. All wells completed in the Unitized Formation.

10. 1. 2 WELL AND LEASE EQUIPMENT. The casing and tubing in each such well, the wellhead connections, thereon, and all other lease and operating equipment that is used in the operation of such wells.

10. 1. 3 RECORDS. A copy of all production and well records that pertain to such wells.

10. 2 INVENTORY AND EVALUATION OF PERSONAL PROPERTY. Working Interest Owners shall at Unit Expense, as of the effective date hereof, or as soon thereafter as feasible, inventory in accordance with the provisions of Exhibit D the personal property taken over under Section 10.1.2, except that casing shall be given no value. No meeting for such inventory and evaluation shall be called on less than ten (10) days advance written notice. Such inventories shall include and be limited to those items of equipment indicated to be controllable in the COPAS Bulletin No. 6, Material Classification Manual - 1967 and other items as agreed upon by the Working Interest Owners. All other non-controllable items of lease and well equipment installed within the Unit Area that are required in Unit Operations, although excluded from the inventories, shall nevertheless be taken over by the Unit Operator. Immediately following completion of such inventory, the material and equipment taken over under Section 10.1.2 shall be priced in accordance with the provisions of Section IV, Paragraph 2 of Exhibit E, Accounting Procedure, or at an appraised value as determined by the Working Interest Owners, which pricing shall be perform-

ed under the supervision of, by the personnel of, and in the offices of the Unit Operator, with other Working Interest Owners furnishing such additional pricing help as may be available.

10.3 INVESTMENT ADJUSTMENT. Upon approval by Working Interest Owners of the inventory and evaluation, investments shall be adjusted as follows:

10.3.1 INITIAL ADJUSTMENT OF INVESTMENTS. Each Working Interest Owner shall be credited with the value, as determined in accordance with Section 10.2 above, of its interest in all personal property taken over by the Unit Operator under Section 10.1.2 and charged with an amount equal to that obtained by multiplying the total value of all such personal property taken over by Unit Operator under Section 10.1.2 by such Working Interest Owner's Unit Participation, as shown in Phase I of Exhibit "D". If the charge against any Working Interest Owner is greater than the amount credited to such Working Interest Owner, the resulting net charge shall be paid and in all other respects treated as any other item of Unit Expense chargeable against such Working Interest Owner. If the credit to any Working Interest Owner is greater than the amount charged against such Working Interest Owner, the resulting net credit shall be paid to such Working Interest Owner by Unit Operator out of funds received by it in settlement of the net charges described above.

10.3.2 READJUSTMENTS OF INVESTMENTS. Effective as of the end of Phase I, the capital investment account of the Working Interest Owners hereunder shall be readjusted on the basis of their respective Phase II Unit Participations, as shown on Exhibit "D". For the purposes of such readjustment, each Working Interest Owner shall be (1) credited for its interest in the adjusted value of all personal property and facilities taken over or otherwise acquired by the Unit Operator pursuant to this agreement during Phase I Unit Operations, and (2) charged with an amount equal to that obtained by multiplying the same adjusted value of personal property and facilities by such Working Interest Owner's Phase II Unit Participation. The adjusted value of all personal

property and facilities for the purposes of this Section 10.3.2 shall be determined as follows:

(a) Value personal property and facilities initially taken over by Unit Operator on the same basis as that used when such personal property and facilities were taken over.

(b) Value all other investment items (controllable and non-controllable materials and construction costs) acquired during Phase I Unit Operations, including well casing subsequently purchased and installed, on the basis of cost to the joint account.

(c) Add (a) and (b) together and deduct the value of all items of investment retired prior to the effective date of Phase II Unit Operations on the same basis that such items were originally charged.

Each Working Interest Owner shall be charged or credited with the net cash amount necessary to effect such readjustment of the capital investment account, and such charges and credits shall be settled in the same manner as the charges and credits referred to in Section 10.3.1.

10.4 GENERAL FACILITIES. The acquisition of warehouses, warehouse stocks, lease houses, camps, facility systems, and office building necessary for Unit Operations shall be by negotiation by the owners thereof and Unit Operator, subject to the approval of Working Interest Owners. There shall be no adjustment for lease roads or appurtenances thereto.

10.5 OWNERSHIP OF PERSONAL PROPERTY AND FACILITIES. Each Working Interest Owner, individually, shall by virtue hereof own an undivided interest, equal to its Unit Participation, in effect at the time, in all personal property and facilities taken over or otherwise acquired by Unit Operator pursuant to this agreement.

ARTICLE 11

UNIT EXPENSE

11.1 BASIS OF CHARGE TO WORKING INTEREST OWNERS. Unit Operator initially shall pay all Unit Expense. Each Working Interest Owner shall reimburse

Unit Operator for its share of Unit Expense. Each Working Interest Owner's share shall be the same as its Unit Participation then in effect. All charges, credits and accounting for Unit Expense shall be in accordance with Exhibit E.

11.2 BUDGETS. Before or as soon as practical after the effective date hereof, Unit Operator shall prepare a budget of estimated Unit Expense for the remainder of the calendar year, and, on or before the first day of each August thereafter, shall prepare such a budget for the ensuing calendar year. Such budget shall set forth the estimated Unit Expense by quarterly periods. Budgets shall be estimates only, and shall be adjusted or corrected by Working Interest Owners and Unit Operator whenever an adjustment or correction is proper. A copy of each budget and adjusted budget shall promptly be furnished to each Working Interest Owner.

11.3 ADVANCE BILLINGS. Unit Operator shall have the right to require Working Interest Owners to advance their respective shares of estimated Unit Expense by submitting to Working Interest Owners, on or before the 15th day of any month, an itemized estimate thereof for the succeeding month, with a request for payment in advance. Within fifteen (15) days thereafter, each Working Interest Owner shall pay to Unit Operator its share of such estimate. Adjustments between estimated and actual Unit Expense shall be made by Unit Operator at the close of each calendar month, and the accounts of Working Interest Owners shall be adjusted accordingly.

11.4 COMMINGLING OF FUNDS. No funds received by Unit Operator under this agreement need be segregated or maintained by it as a separate fund, but may be commingled with its own funds.

11.5 LIEN OF UNIT OPERATOR. Each Working Interest Owner grants to Unit Operator a lien upon its Oil and Gas Rights in each Tract, its share of Unitized Substances when produced, and its interest in all Unit Equipment, as security for payment of its share of Unit Expense, together with interest thereon at the rate of ten percent (10%) per annum. Unit Operator shall have the right to bring suit to enforce collection of such indebtedness with or without seeking foreclosure of the lien. In addition, upon default by any Working Interest Owner in the payment of its share of Unit Expense, Unit Operator shall have the right to collect from the

purchaser the proceeds from the sale of such Working Interest Owner's share of Unitized Substances until the amount owed by such Working Interest Owner, plus interest as aforesaid, has been paid. Each purchaser shall be entitled to rely upon Unit Operator's written statement concerning the amount of any default.

11.6 LIEN OF WORKING INTEREST OWNER. Each Working Interest Owner shall have a lien on the Working Interest of Unit Operator in the Unit Area and on the oil and gas produced therefrom and on the proceeds thereof to secure the payment of any amount that may at any time become due and payable by Unit Operator to such Working Interest Owner under the terms of this agreement, together with interest at the rate of ten percent (10%) per annum.

11.7 UNPAID UNIT EXPENSE. If any Working Interest Owner fails to pay its share of Unit Expense within sixty (60) days after rendition of a statement therefor by Unit Operator, each Working Interest Owner agrees, upon request by Unit Operator to pay its proportionate part of the unpaid share of Unit Expense of the defaulting Working Interest Owner. The Working Interest Owners that pay the share of Unit Expense of a defaulting Working Interest Owner shall be reimbursed by the Unit Operator for the amounts so paid, plus any interest collected thereon, upon receipt by Unit Operator of any past due amount collected from the defaulting Working Interest Owner. Any Working Interest Owner so paying a defaulting Working Interest Owner's share of Unit Expenses shall be subrogated to the lien and rights herein granted Unit Operator.

11.8 UNCOMMITTED ROYALTY. Should an owner of a Royalty Interest in any Tract fail to become a party to the Unit Agreement, and, as a result thereof, the actual Royalty Interest payments with respect to such Tract are more or less than the Royalty Interest payments computed on the basis of the Unitized Substances that are allocated to such Tract under the Unit Agreement, the difference shall be borne by or inure to the benefit of Working Interest Owners, in proportion to their respective Unit Participations; however, the difference to be borne by or inure to the benefit of Working Interest Owners shall not exceed an amount computed on the basis of one eighth (1/8) of the difference between the Unitized Substances allocated to the Tract and the Unitized Substance produced from the Tract. Such adjustments

shall be made by charges and credits to the joint account.

11.9 BURDEN OF EXCESS ROYALTY AND OTHER INTERESTS. Any uncommitted Royalty Interest in excess of one eighth (1/8) shall be borne solely by the Working Interest Owner or Owners contributing the Tract with such uncommitted Royalty Interest.

11.10 CARVED-OUT INTEREST. In the event any Working Interest Owner shall, after executing this agreement, create any overriding royalty, production payment, net profits, or carried interest, or any other interest out of its Working Interest then subject to this agreement, such carved-out interest shall be subject to the terms and provisions of this agreement, specifically including, but without limitation, Section 11.5 hereof, entitled "Lien of Unit Operator". In the event the Working Interest Owner creating such carved-out interest (a) fails to pay any costs or expenses chargeable to such Working Interest Owner under this agreement and the production of Unitized Substance accruing to the credit of such Working Interest Owner is insufficient for that purpose, or (b) withdraws from this agreement under the terms and provisions of Article 17 hereof, the carved-out interest shall be chargeable with a pro rata portion of all costs and expenses incurred hereunder, the same as though such carved-out interest were a Working Interest and Unit Operator shall have the right to enforce against such carved-out interest the lien and all other rights granted in said Section 11.5 for the purpose of collecting the costs and expenses chargeable to said carved-out interest.

ARTICLE 12

NON-UNITIZED FORMATIONS

12.1 RIGHT TO OPERATE. Any Working Interest Owner that now has or hereafter acquires the right to drill for and produce oil, gas, or other minerals, from other than the Unitized Formation, shall have the right to do so notwithstanding this agreement or the Unit Agreement. In exercising the right, however, the Working Interest Owner shall exercise reasonable precaution to prevent unreasonable interference with Unit Operations. No Working Interest Owner shall produce Unitized Substances through any well drilled or operated by it. If any Working

Interest Owner drills any well into or through the Unitized Formation, the Unitized Formation shall be protected in a manner satisfactory to Working Interest Owners so that the production of Unitized Substances will not adversely be affected.

ARTICLE 13

TITLES

13.1 WARRANTY AND INDEMNITY. Each Working Interest Owner represents and warrants that it is the owner of the respective working interests set forth opposite its name in Exhibit C, and hereby agrees to indemnify and hold harmless the other Working Interest Owners from any loss due to failure, in whole or in part, of its title to any such interest, except failure of title arising out of Unit Operations; provided that, such indemnity shall be limited to an amount equal to the net value that has been received from the sale or receipt of Unitized Substances attributed to the interest as to which title failed. Each failure of title will be deemed to be effective, insofar as this agreement is concerned, as of the first day of the calendar month in which such failure is finally determined, and there shall be no retroactive adjustment of Unit Expense, or retroactive allocation of Unitized Substances or the proceeds therefrom, as a result of title failure.

13.2 FAILURE BECAUSE OF UNIT OPERATIONS. The failure of title to any Working Interest in any Tract by reason of Unit Operations, including non-production from such Tract, shall not change the Unit Participation of the Working Interest Owner whose title failed in relation to the Unit Participations of the other Working Interest Owners at the time of the title failure.

ARTICLE 14

LIABILITY, CLAIMS, AND SUITS

14.1 INDIVIDUAL LIABILITY. The duties, obligations, and liabilities of Working Interest Owners shall be several and not joint or collective; and nothing herein contained shall ever be construed as creating a partnership of any kind, joint venture, association, or trust among Working Interest Owners.

14.2 SETTLEMENTS. Unit Operator may settle any single damage claim or suit involving Unit Operations but not involving an expenditure in excess of Two Thousand Dollars (\$2,000.00) provided that the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above specified amount, Working Interest Owners shall assume and take over the further handling of the claim or suit unless such authority is expressly delegated to Unit Operator. All costs and expense of handling, settling, or otherwise discharging such claim or suit shall be an item of Unit Expense. If a claim is made against any Working Interest Owner or if any Working Interest Owner is sued on account of any matter arising from Unit Operations and over which such Working Interest Owner individually has no control because of the rights given Working Interest Owners and Unit Operator by this agreement and the Unit Agreement, the Working Interest Owner shall immediately notify the Unit Operator, and the claim or suit shall be treated as any other claim or suit involving Unit Operations.

ARTICLE 15

INTERNAL REVENUE PROVISION

15.1 INTERNAL REVENUE PROVISION. Notwithstanding any provisions herein, that the rights and liabilities of the parties hereunder are several and not joint or collective, or that this agreement and the operations hereunder shall not constitute a partnership, if for Federal income tax purposes this agreement and the operations hereunder are regarded as a partnership, then each of the parties hereto hereby elects to be excluded from the application of all of the provisions of Sub-Chapter K, Chapter 1, Subtitle A of the Internal Revenue Code of 1954, as permitted and authorized by Section 761 of the said Code and the regulation promulgated thereunder. Operator is hereby authorized and directed to execute on behalf of each of the parties hereto such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements and data required by Federal Regulations 1.761.1(a). Should there be any requirement that each party hereto further

evidence this election each party hereto agrees to execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. Each party hereto further agrees not to give any notices or take any other action inconsistent with the election made hereby. If any present or future income tax laws of the state or states in which the property covered by this agreement is located, or any future income tax law of the United States, contain, or shall hereafter contain, provisions similar to those contained in Sub-Chapter K, Chapter 1, Subtitle A of the Internal Revenue Code of 1954, under which an election similar to that provided by Section 761 of said Sub-Chapter K is permitted, each of the parties hereto hereby makes such election or agrees to make such election as may be permitted by such laws. In making this election each of the parties hereto hereby states that the income derived by him from the operations under this agreement can be adequately determined without the computation of partnership taxable income.

ARTICLE 16

NOTICES

16.1 NOTICES. All notices required hereunder shall be in writing and shall be deemed to have been properly served when sent by mail or telegram to the address of the representative of each Working Interest Owner as furnished to Unit Operator in accordance with Article 4.

ARTICLE 17

WITHDRAWAL OF WORKING INTEREST OWNER

17.1 WITHDRAWAL. A Working Interest Owner may withdraw from this agreement by transferring, without warranty of title, either expressed or implied, to the other Working Interest Owners who do not desire to withdraw, all its Oil and Gas Rights together with its interest in all Unit Equipment and in all wells used in Unit Operations. Such transfer shall not relieve said Working Interest Owner from any obligation or liability incurred prior to the date of the delivery of the transfer, which delivery may be made to Unit Operator as Agent for the transferees. The interest transferred shall be owned by the transferees in proportion to their

respective Unit Participations then in effect. The transferees, in proportion to the respective interests so acquired, shall pay transferor, for its interest in Unit Equipment, the net salvage value thereof as estimated and fixed by Working Interest Owners. After the date of delivery of the transfer, the withdrawing Working Interest Owner shall be relieved from all further obligations and liability hereunder and under the Unit Agreement, and the rights of such Working Interest Owner hereunder and under the Unit Agreement shall cease insofar as they existed by virtue of the interest transferred.

ARTICLE 18

ABANDONMENT OF WELLS

18.1 RIGHTS OF FORMER OWNERS. If Working Interest Owners decide to abandon permanently any well within the Unit Area prior to termination of the Unit Agreement, Unit Operator shall give written notice thereof to the Working Interest Owners of the Tract on which the well is located, and they shall have the option for a period of ninety (90) days after the sending of such notice to notify Unit Operator in writing of their election to take over and own the well. Within ten (10) days after the Working Interest Owners of the Tract have notified Unit Operator of their election to take over the well, they shall pay Unit Operator, for credit to the joint account; the amount estimated by Working Interest Owners to be the net salvage value of the casing and equipment in and on the well. The Working Interest Owners of the Tract, by taking over the well, agree to seal off effectively and protect the Unitized Formation, and upon abandonment to plug the well in compliance with applicable laws and regulations.

18.2 PLUGGING. If the Working Interest Owners of a Tract do not elect to take over a well located thereon which is proposed for abandonment, Unit Operator shall plug and abandon the well in compliance with applicable laws and regulations.

ARTICLE 19

EFFECTIVE DATE AND TERM

19.1 EFFECTIVE DATE. This agreement shall become effective on the date and at the time the Unit Agreement becomes effective.

19.2 TERM. This agreement shall continue in effect so long as the Unit Agreement remains in effect, and thereafter until (a) all unit wells have been abandoned and plugged or turned over to Working Interest Owners in accordance with Article 20, (b) all Unit Equipment and real property acquired for the joint account have been disposed of by Unit Operator in accordance with instructions of Working Interest Owners, and (c) there has been a final accounting.

ARTICLE 20

ABANDONMENT OF OPERATIONS

20.1 TERMINATION. Upon termination of the Unit Agreement the following will occur:

20.1.1 OIL AND GAS RIGHTS. Oil and Gas Rights in and to each separate tract shall no longer be affected by this agreement, and thereafter the parties shall be governed by the terms and provisions of the leases, contracts, and other instruments affecting the separate Tracts.

20.1.2 RIGHT TO OPERATE. Working Interest Owners of any Tract that desire to take over and continue to operate wells located thereon may do so by paying Unit Operator, for credit to the joint account, the net salvage value of the equipment in and on the wells taken over as estimated by Working Interest Owners, and by agreeing to plug properly each well at such time as it is abandoned.

20.1.3 SALVAGING WELLS. Unit Operator shall salvage as much of the casing and equipment in or on wells not taken over by Working Interest Owners of separate Tracts as can economically and reasonably be salvaged, and shall cause the wells to be plugged and abandoned properly.

20.1.4 COST OF SALVAGING. Working Interest Owners shall share the cost of salvaging, liquidation or other distribution of assets and properties used in Unit Operations in proportion to their respective Unit Participations then in effect in which such salvaging, liquidation or other distribution occurs.

ARTICLE 21

EXECUTION

21.1 ORIGINAL COUNTERPART, OR OTHER INSTRUMENT. A party may become a party to this agreement by signing the original of this instrument, a counterpart thereof, or other instrument agreeing to be bound by the provisions hereof. The signing of any such instrument shall have the same effect as if all the parties had signed the same instrument.

ARTICLE 22

SUCCESSORS AND ASSIGNS

22.1 SUCCESSORS AND ASSIGNS. The provisions hereof shall be covenants running with the lands, leases, and interests covered hereby, and shall be binding upon and inure to the benefit of the respective heirs, devisees, legal representatives, successors, and assigns of the parties hereto.

IN WITNESS WHEREOF, The parties hereto have executed this agreement on the dates opposite their respective signatures.

ATTEST:

RESERVE OIL AND GAS COMPANY

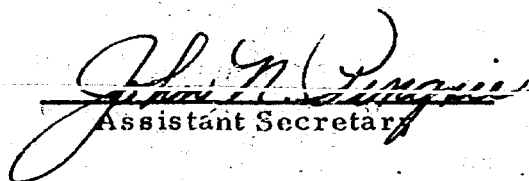
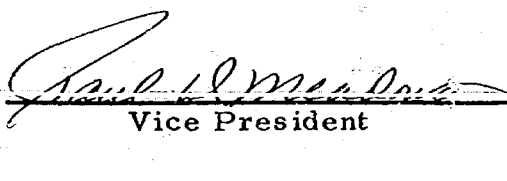
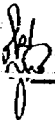
 Assistant Secretary  Vice President  January 21, 1970
Date

EXHIBIT "D"
ATTACHED TO UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

<u>WORKING INTEREST OWNERS</u>	<u>TRACT NO.</u>	<u>UNIT PARTICIPATION - PERCENT</u>	
		<u>PHASE I</u>	<u>PHASE II</u>
Amerada-Hess	2	9.30905	9.34279
Atlantic Richfield Company	8	1.04564	1.39895
	9	5.17186	4.59899
	14	1.81369	1.38166
	15	-	2.35316
	16	8.14662	6.22246
	17	.76077	1.09140
	18	1.44471	.69389
		<u>18.38329</u>	<u>17.74051</u>
Bauerdorf Estate	26	1.22106	.78423
Cities Service Oil Company	6	-	.58099
	7	2.77474	.54082
		<u>2.77474</u>	<u>1.12181</u>
Continental Oil Company	5	5.25511	7.00755
French, Johnny	27	-	.02566
French, Tillie	27	-	.02566
Hansen Oil Company	6	-	.11620
Harlan, John L.	10	-	.13830
Humble Oil & Refining Company	20	6.42925	4.34410
	24	2.92371	3.58496
		<u>9.35296</u>	<u>7.92906</u>
Johnson, L. A.	27	-	.05131
Lind, Dorothy B.	5	2.62755	3.50377
Mallard, Margaret Strain	21	.26576	.13911
Petroleum Corporation of Texas	4	2.96428	3.06855
	14	1.81369	1.38167
	16	2.03666	1.55561
	19	-	2.04150
	25	1.60775	4.16102
		<u>8.42238</u>	<u>12.20835</u>
Reserve Oil and Gas Company	4	2.96428	3.06854
	8	1.04565	1.39896
	12	.43113	-
	16	6.10997	4.66684
	18	1.44471	.69390
	19	-	2.04151
	21	2.12606	1.11287
	22	-	.13698
	25	1.60774	4.16102
	26	6.10528	3.92113
		<u>21.83482</u>	<u>21.20175</u>

EXHIBIT "D" - Page 2.

<u>WORKING INTEREST OWNERS</u>	<u>TRACT NO.</u>	<u>UNIT PARTICIPATION - PERCENT</u>	
		<u>PHASE I</u>	<u>PHASE II</u>
Richardson, Sarah B., Individually and as Trustee U/W/O Jack Richardson	17	.76077	1.09140
Sivley, T. J.	5	2.62755	3.50377
Sowell, Adele Irvine	26	.87769	.56370
Strain, Jr., Charles Hunter	21	.26576	.13911
Strain, Clara Margaret	21	.53152	.27822
Tenneco Oil Company	21	1.06303	.55644
Texaco Inc.	1	5.22514	6.60039
Texas Pacific Oil Company, Inc.	3	.41979	.65204
	11	-	.39418
	12	3.01793	.18651
	13	1.12888	1.16975
	22	-	.13698
	23	.62869	.81825
	26	4.00653	2.57320
		<u>9.20182</u>	<u>5.93091</u>
TOTALS		<u>100.00000</u>	<u>100.00000</u>

EXHIBIT " E "

Attached to and made a part of Unit Operating Agreement
..... Cooper Jal Unit
..... Lea County, New Mexico
.....

ACCOUNTING PROCEDURE JOINT OPERATIONS

I. GENERAL PROVISIONS

1. Definitions

"Joint Account" shall mean the account showing the charges and credits accruing because of the Joint Operations and which are to be shared by the Parties.

"Joint Property" shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.

"Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

"Operator" shall mean the party designated to conduct the Joint Operations.

"Non-Operators" shall mean the parties to this agreement other than the Operator.

"Parties" shall mean Operator and Non-Operators.

"Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

"Controllable Material" shall be defined as set forth under the subparagraph selected below:

A. ☒ Material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies of North America.

B. ☐ Material which is ordinarily so classified and controlled by Operator in the conduct of its operations. List shall be furnished Non-Operators upon request.

2. Statements and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of costs and expenses for the preceding month. Such bills will be accompanied by statements reflecting the total charges and credits as set forth under the subparagraph selected below:

A. ☐ Statement in detail of all charges and credits to the Joint Account.

B. ☐ Statement of all charges and credits to the Joint Account, summarized by appropriate classifications indicative of the nature thereof.

C. ☒ Statement of all charges and credits to the Joint Account, summarized by appropriate classification indicative of the nature thereof, except that items of Controllable Material and unusual charges and credits shall be detailed.

3. Advances and Payments by Non-Operators

Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.

Each Non-Operator shall pay its proportion of all bills within fifteen (15) days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the rate of ten per cent (10%) per annum or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; provided however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of the Joint Property as provided for in Section VII.

5. Audits

A Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the accounting hereunder for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator.

6. Approval by Non-Operators

Where an approval or other agreement of Non-Operators is expressly required under Paragraphs 5A, 5B, 6A and 8 of Section II, Section III, Section V, Section VI, and Paragraph 4 of Section VII, of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, the Operator shall notify all Non-Operators and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

1. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

2. Labor

- A. (1) Salaries and wages of Operator's employees directly employed on the Joint Property in the conduct of Joint Operations.
- (2) Salaries of first-level supervisors in the field if such charges are excluded from overhead rates in Option A of Section III.
- (3) Salaries and wages of technical employees temporarily assigned to and directly employed on the Joint Property if such charges are excluded from overhead rates in Option B of Section III.
- (4) Salaries and wages of technical employees either temporarily or permanently assigned to and directly employed in the operation of the Joint Property if such charges are excluded from overhead rates in Option C of Section III.
- B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to the employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II and Paragraph 1A of Section III; except that in the case of those employees only a pro rata portion of whose salaries and wages are chargeable to the Joint Account under Paragraph 1A of Section III, not more than the same pro rata portion of the benefits and allowances herein provided for shall be charged to the Joint Account. Cost under this Paragraph 2B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 2A of this Section II and Paragraph 1A of Section III. If percentage assessment is used, the rate shall be based on the Operator's cost experience.
- C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's labor cost of salaries and wages chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II and Paragraph 1A of Section III.
- D. Reasonable personal expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II and for which expenses the employees are reimbursed under Operator's usual practice.

3. Employee Benefits

Operator's current cost of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II and Paragraph 1A of Section III shall be chargeable as indicated in the subparagraph selected below:

- A. ☐ Operator's actual cost.
- B. ☒ Operator's actual cost not to exceed fifteen per cent (15%).

4. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. So far as it is reasonably practical and consistent with efficient and economical operation, only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use; and the accumulation of surplus stocks shall be avoided.

5. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

- A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store, recognized barge terminal, or railway receiving point where like material is normally available, unless agreed to by Operator and Non-Operators.
- B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store, recognized barge terminal, or railway receiving point unless agreed to by Operators and Non-Operators. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by Operator and Non-Operators.
- C. ~~For the application of Paragraph 5A and 5B, the distance shall be measured from the nearest reliable supply store, recognized barge terminal, or railway receiving point.~~

6. Services

- A. The cost of contract services and utilities procured from outside sources other than services covered by Paragraph 8 of this Section II and Paragraph 1B of Section III. The cost of professional consultant services shall not be charged to the Joint Account unless agreed to by Operator and Non-Operators.
- B. Use and service of equipment and facilities furnished by Operator as provided in Paragraph 5 of Section IV.

7. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other cause, except to the extent that the damage or loss could have been avoided through the exercise of reasonable diligence on the part of Operator. Operator shall furnish Non-Operators written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

8. Legal Expense

All costs and expenses of handling, investigating, and settling litigation or claims arising by reason of the Joint Operations or necessary to protect or recover the Joint Property, including, but not limited to, attorney's fees, court costs, cost of investigation or procuring evidence and amounts paid in settlement or satisfaction of any such litigation or claims; provided, (a) no charge shall be made for the services of Operator's legal staff or other regularly employed personnel (such services being considered to be Administrative Overhead under Section III), unless agreed to by Operator and Non-Operators, and (b) no charge shall be made for the fees and expenses of outside attorneys unless the employment of such attorneys is agreed to by Operator and Non-Operators.

9. Taxes

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof, or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties.

10. Insurance

Net premiums paid for insurance required to be carried on the Joint Property for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Workmen's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge therefor on the following basis:

11. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III, and which is incurred by the Operator for the necessary and proper conduct of the Joint Operations.

III. INDIRECT CHARGES

Operator may charge the Joint Account for indirect costs either by use of an allocation of district expense items plus the rate for administrative overhead, and plus the warehousing charges, all as provided for in Paragraph 1 of this Section III or by combining all three of said items under the rates provided for in Paragraph 2 or 3 of this Section III, as indicated next below:

OPERATOR SHALL CHARGE INDIRECT COSTS TO THE JOINT ACCOUNT UNDER THE TERMS OF:

- ☐ Paragraph 1. (District Expense, Administrative Overhead and Warehousing)
☒ Paragraph 2. (Combined Rates - Well Basis)
☐ Paragraph 3. (Combined Rates - Percentage Basis)

The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting or matters before or involving governmental agencies shall be considered as included in the overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by Operator and Non-Operators as a direct charge to the Joint Account.

THE OVERHEAD RATES PROVIDED FOR IN ANY OF THE PARAGRAPHS SELECTED ABOVE

- A. ☒ shall ☐ shall not include salaries and personal expenses of first-level supervisors in the field.
B. ☒ shall ☐ shall not include salaries, wages and personal expenses of technical employees temporarily assigned to and directly employed on the Joint Property.
C. ☒ shall ☐ shall not include salaries, wages and personal expenses of technical employees either temporarily or permanently assigned to and directly employed in the operation of the Joint Property.

1. District Expense, Administrative Overhead and Warehousing

A. District Expense

Operator shall charge the Joint Account with a pro rata portion of the salaries, wages and expenses of Operator's production superintendent and other employees serving the Joint Property and other properties of the Operator in the same operating area, whose time is not allocated directly to the properties, and a pro rata portion of the cost of maintaining and operating a production office known as Operator's

office located at or near (or a comparable office if location changed); and necessary sub-offices (if any), maintained for the convenience of the above-described office, and all necessary camps, including housing facilities for employees if required, used in connection with the operations of the Joint Property and other properties in the same operating area. The expense of, less any revenue from, such facilities may, at the option of Operator, include depreciation of investment or a fair monthly rental in lieu of depreciation. Such charges shall be apportioned to all properties served on some equitable basis consistent with Operator's accounting practice.

B. Administrative Overhead

Operator shall charge administrative overhead to the Joint Account at the following rates, which charge shall be in lieu of the cost and expense of all offices of the Operator not covered by Paragraph 1A of this Section III, including salaries, wages and expenses of personnel assigned to such offices. Such charge shall be in addition to the salaries, wages and expenses of employees of Operator authorized to be charged direct as provided in Paragraphs 2 and 8 of Section II. Such charge shall be made on the basis indicated below, either (1) well basis or (2) percentage basis, at the rates shown thereunder.

(1) ☐ Well Basis

RATE PER WELL PER MONTH

Well Depth	DRILLING WELL RATE (Use Total Depth)	PRODUCING WELL RATE (Use Current Producing Depth)		
	Each Well	First Five	Next Five	All Wells Over Ten

(2) ☐ Percentage Basis

PERCENTAGE BASIS

Development:

Percent (%) of the cost of development of the Joint Property exclusive of costs provided under Paragraph 8 of Section II and all salvage credits.

Operating:

Percent (%) of the cost of operating the Joint Property exclusive of costs provided under Paragraphs 1 and 8 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

C. Operator's Warehouse Operating and Maintenance Expense

- [] Included in district expense
 [] No charge either direct or indirect
 [] Percentage basis (describe fully)

2. Combined Rates - Well Basis

Operator shall charge the Joint Account for the services covered by Paragraph 1 of this Section III on the basis indicated below:

Well Depth	RATE PER WELL PER MONTH			
	DRILLING WELL RATE (Use Total Depth)	PRODUCING WELL RATE (Use Current Producing Depth)		
	Each Well	First Five	Next Five	All Wells Over Ten
All Depths	\$500	\$77.00	\$77.00	\$77.00
.....
.....
.....

3. Combined Rates - Percentage Basis

Operator shall charge the Joint Account for the services covered by Paragraph 1 of this Section III on the basis indicated below:

PERCENTAGE BASIS

A. Development:

..... Percent (%) of the cost of development of the Joint Property exclusive of costs provided under Paragraph 8 of Section II and all salvage credits.

B. Operating:

..... Percent (%) of the cost of operating the Joint Property exclusive of costs provided under Paragraphs 1 and 8 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

4. Application of Administrative Overhead or Combined Rates - Well Basis

The following limitations, instructions and charges shall apply in the application of the rates as provided under either Paragraph 1B (1) or Paragraph 2 of this Section III.

- A. Charges for drilling wells shall begin on the date each well is spudded and terminate on the date the drilling or completion rig is released, whichever is later, except that no charge shall be made during the suspension of drilling operations for fifteen (15) or more consecutive days.
- B. The status of wells shall be as follows:
- (1) Producing gas wells, injection wells for recovery operations, water supply wells utilized for waterflood-ing operations and salt water disposal wells shall be considered the same as producing oil wells.
 - (2) Wells permanently shut down but on which plugging operations are deferred shall be dropped from the well schedule at the time the shutdown is effected. Any well being plugged or produced during any portion of the month shall be considered as a producing well for the entire month.
 - (3) Wells being plugged back, drilled deeper, converted to a source or input well, or which are undergoing any type of workover that requires the use of a drilling rig or workover rig capable of drilling shall be considered the same as drilling wells.
 - (4) Temporarily shut-down wells, which are not produced or worked upon for a period of a full calendar month, shall not be included in the well schedule, provided however, wells shut in by governmental regulatory body shall be included in the well schedule only in the event the allowable production is transferred to some other well or wells on the Joint Property. In the event of a unit allowable, shut-in wells shall be counted in determining the charge hereunder for such month if said wells contribute allowable production that is actually produced during such month from one or more unit wells as a result of allowable transfer, inclusion in the unit allowable or other circumstances, but the total shut-in well count shall be limited to the minimum number of shut-in wells necessary to provide the contributed allowable actually produced during the month.
 - (5) Gas wells shall be included in the well schedule if directly connected to a permanent sales outlet even though temporarily shut in due to overproduction or failure of purchaser to take the allowed production.
 - (6) Wells completed in multiple horizons, shall be considered as a producing well for each separately producing horizon, providing each completion is considered a separate well by governmental or other state-wide regulatory authority.
- C. The well rates for producing wells shall be applied to the individual leases; provided that, whenever leases covered by this agreement are operated as a unitized project, the well rates shall be applied to the total number of producing wells, irrespective of individual leases.
- D. The well rates shall be adjusted as of the first day of April each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the preceding calendar year as shown by "The Index of Average Weekly Earnings of Crude Petroleum and Gas Production Workers" as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian Index as published by the Dominion Bureau of Statistics, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

5. Application of Administrative Overhead or Combined Rates - Percentage Basis

For the purpose of determining charges on a Percentage Basis under Paragraph 1B (2) or Paragraph 3 of this Section III, Development shall include all costs in connection with drilling, re-drilling, deepening or any remedial operations on any or all wells involving the use of drilling crew and equipment; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when well is not completed as a producer; and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 6 of this Section III. All other costs shall be considered as Operating.

6. Major Construction Overhead

For the construction of compressor plants, water stations, secondary recovery systems, drilling and production platforms, salt water disposal facilities, and other such projects, as distinguished from the more usual drilling

and producing operations, Operator in addition to the Administrative Overhead or Combined Rates provided for in Paragraph 1, 2 or 3 of this Section III shall either negotiate a rate prior to beginning of construction or shall charge the Joint Account with an additional overhead charge as follows:

- A. Total cost less than \$25,000, no charge.
- B. Total cost more than \$25,000, but less than \$100,000,3.....% of total cost.
- C. Total cost of \$100,000 or more,3.....% of the first \$100,000 plus2.....% of all over \$100,000 of total cost.

Total cost shall mean the total gross cost of any one project. For the purpose of this paragraph the component parts of a single project shall not be treated separately and the cost of drilling wells shall be excluded.

7. Amendment of Rates

The specific rates provided for in this Section III may be amended from time to time by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. BASIS OF CHARGES TO JOINT ACCOUNT

Subject to the further provisions of this Section IV, Operator will procure all Material and service for the Joint Property. At the Operator's option, Non-Operators may supply Material or services for the Joint Property.

1. Purchases

Material purchased and service procured shall be charged at the price paid by Operator after deduction of all discounts actually received.

2. Material furnished from Operator's Warehouse or Other Properties

A. New Material (Condition "A")

- (1) Tubular goods, except line pipe, shall be priced on a maximum carload and/or barge load weight basis regardless of quantity transferred and equalized to the lowest prevailing price f.o.b. railway receiving point or recognized barge terminal nearest the Joint Property where such Material is normally available effective at date of transfer.
- (2) Line pipe shall be priced at the current replacement cost effective at date of transfer from a reliable supply store nearest the Joint Property where such Material is normally available if the movement is less than 30,000 pounds. If the movement is 30,000 pounds or more, it shall be priced on the same basis as casing and tubing under Subparagraph (1) of this paragraph.
- (3) When the Operator has equalized actual hauling costs as provided for in Paragraph 5 of Section II, Operator is permitted to include ten cents (10¢) per hundred-weight on all tubular goods furnished from his stocks in lieu of loading and unloading costs sustained.
- (4) Other Material shall be priced at the current replacement cost of the same kind of Material, effective at date of movement and f.o.b. the supply store or railway receiving point nearest the Joint Property where Material of the same kind is normally available.
- (5) The Joint Account shall not be credited with cash discounts applicable to prices provided for in this Paragraph 2 of Section IV.

B. Used Material (Condition "B" and "C")

- (1) Material in sound and serviceable condition and suitable for reuse without reconditioning, shall be classified as Condition "B" and priced at seventy-five per cent (75%) of the current price of new Material.
- (2) Material which is not suitable for its original function until after reconditioning shall be furnished to the Joint Account under one of the two methods defined below:
 - (a) Classified as Condition "B" and priced at seventy-five per cent (75%) of the current price of new Material. The cost of reconditioning shall be absorbed by the Operator of the transferring property.
 - (b) Classified as Condition "C" and priced at fifty per cent (50%) of current price of new Material. The cost of reconditioning also shall be charged to the receiving property, provided Condition "C" value, plus cost of reconditioning, does not exceed Condition "B" value.
- (3) Obsolete Material or Material which cannot be classified as Condition "B" or Condition "C" shall be priced at a value commensurate with its use. Material no longer suitable for its original purpose but usable for some other purpose, shall be priced on a basis comparable with that of items normally used for such other purpose.
- (4) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

3. Premium Prices

Whenever Material is not readily obtainable at prices specified in Paragraphs 1 and 2 of this Section IV because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in procuring such Material, in making it suitable for use, and in moving it to the Joint Property, provided, that notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within 10 days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

4. Warranty of Material Furnished by Operator

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

5. Equipment and Facilities Furnished by Operator

- A. Operator shall charge the Joint Account for use of equipment and facilities at rates commensurate with cost of ownership and operation. Such rates shall include cost of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on investment not to exceed six per cent (6%) per annum, provided such rates shall not exceed those currently prevailing in the immediate area within which the Joint Property is located. In lieu of rates based on costs of ownership and operation of equipment, other than automotive, Operator may elect to use commercial rates prevailing in the area of the Joint Property less 20%; for automotive equipment, rates as published by the Petroleum Motor Transport Association may be used. Rates for laboratory services shall not exceed those currently prevailing if performed by

outside service laboratories. Rates for trucks, tractors and well service units may include wages and expenses of operator.

- B. Whenever requested, Operator shall inform Non-Operators in advance of the rates it proposes to charge.
- C. Rates shall be revised and adjusted from time to time when found to be either excessive or insufficient.

V. DISPOSAL OF MATERIAL

The Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus Condition "A" or "B" Material. The disposition of surplus Controllable Material, not purchased by Operator, shall be agreed to by Operator and Non-Operators, provided Operator shall dispose of normal accumulations of junk and scrap Material either by transfer or sale from Joint Property.

1. Material Purchased by the Operator or Non-Operators.

Material purchased by either the Operator or Non-Operators shall be credited by the Operator to the Joint Account for the month in which the Material is removed by the purchaser.

2. Division in Kind

Division of Material in kind, if made between Operator and Non-Operators, shall be in proportion to the respective interests in such Material. The Parties will thereupon be charged individually with the value of the Material received or receivable. Proper credits shall be made by the Operator to the Joint Account.

3. Sales to Outsiders

Sales to outsiders of Material from the Joint Property shall be credited by Operator to the Joint Account at the net amount collected by Operator from vendee. Any claim by vendee related to such sale shall be charged back to the Joint Account if and when paid by Operator.

VI. BASIS OF PRICING MATERIAL TRANSFERRED FROM JOINT ACCOUNT

Material purchased by either Operator or Non-Operators or divided in kind, unless agreed to by Operator and Non-Operators shall be priced on the following basis:

1. New Price Defined

New price as used in this Section VI shall be the price specified for new Material in Section IV.

2. New Material

New Material (Condition "A"), being new Material procured for the Joint Property but never used, at one hundred per cent (100%) of current new price (plus sales tax if any).

3. Good Used Material

Good used Material (Condition "B"), being used Material in sound and serviceable condition, suitable for reuse without reconditioning:

- A. At seventy-five per cent (75%) of current new price if Material was charged to Joint Account as new, or
- B. At sixty-five per cent (65%) of current new price if Material was originally charged to the Joint Account as secondhand at seventy-five per cent (75%) of new price.

4. Other Used Material

Used Material (Condition "C"), at fifty per cent (50%) of current new price, being used Material which:

- A. Is not in sound and serviceable condition but suitable for reuse after reconditioning, or
- B. Is serviceable for original function but not suitable for reconditioning.

5. Bad-Order Material

Material (Condition "D"), no longer suitable for its original purpose without excessive repair cost but usable for some other purpose at a price comparable with that of items normally used for such other purpose.

6. Junk Material

Junk Material (Condition "E"), being obsolete and scrap Material, at prevailing prices.

7. Temporarily Used Material

When the use of Material is temporary and its service to the Joint Property does not justify the reduction in price as provided for in Paragraph 3B of this Section VI, such Material shall be priced on a basis that will leave a net charge to the Joint Account consistent with the value of the service rendered.

VII. INVENTORIES

The Operator shall maintain detailed records of Controllable Material.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, inventories shall be taken by Operator of the Joint Account Controllable Material. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator.

2. Reconciliation and Adjustment of Inventories

Reconciliation of inventory with the Joint Account shall be made, and a list of overages and shortages shall be furnished to the Non-Operators. Inventory adjustments shall be made by Operator with the Joint Account for overages and shortages, but Operator shall be held accountable to Non-Operators only for shortages due to lack of reasonable diligence.

3. Special Inventories

Special Inventories may be taken whenever there is any sale or change of interest in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory.

4. Expense of Conducting Periodic Inventories

The expense of conducting periodic inventories shall not be charged to the Joint Account unless agreed to by Operator and Non-Operators.

EXHIBIT "F"
ATTACHED TO UNIT OPERATING AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

INSURANCE PROVISIONS

Unit Operator, during the term of the Unit Operating Agreement, shall carry insurance for the benefit and at the expense of the parties hereto as follows:

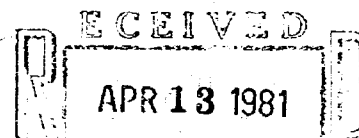
- (1) Employers' Liability Insurance with Limit of not less than \$100,000.00 per employee.
- (2) Public Liability and Property Damage Insurance with limits of not less than \$100,000.00 for injuries to or death of one person and \$300,000.00 for injuries or deaths in one accident, and \$100,000.00 for property damage in one accident
- (3) Automobile Public Liability and Property Damage Insurance with limits of not less than \$100,000.00 for injuries to or death of one person and \$300,000.00 for injuries or deaths in one accident, and \$100,000.00 for property damage in one accident

Except as authorized by Article 9 and by this Exhibit E, Unit Operator shall not make any charge to the joint account for insurance premiums. Losses not covered by Unit Operator's insurance (or by insurance required by this Unit Operating Agreement to be carried for the benefit and at the expense of the parties hereto) shall be charged to the joint account.



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
South Central Region
P. O. Box 26124
Albuquerque, New Mexico 87125

IN REPLY REFER TO:



06 APR 1981

Getty Oil Company
Attention: Dale R. Crockett
P. O. Box 730
Hobbs, New Mexico 88240

OIL CONSERVATION DIVISION
SANTA FE

4402

Gentlemen:

One approved copy of your 1981 plan of development for the Copper
Jal unit area, Lea County, New Mexico is enclosed. Such plan,
proposing to perform remedial and stimulation workovers on wells,
was approved on this date subject to like approval by the
appropriate officials of the State of New Mexico.

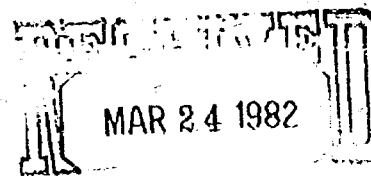
Sincerely yours,

ORIGINAL SIGNED BY:

Gene F. Daniel
Deputy Conservation Manager
Oil and Gas

Enclosure

cc:
NMOCD, Santa Fe/
DS, Roswell (w/enclosure)



Santa Fe

MAR 22 1982

4402

Getty Oil Company
Attention: Dale R. Crockett
P. O. Box 730
Hobbs, New Mexico 88240

Gentlemen:

An approved copy of your 1982 Plan of Development for the Cooper Jal unit area, Lea County, New Mexico is enclosed. Such plan, proposing that remedial and stimulation workovers on wells be performed as needed, was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

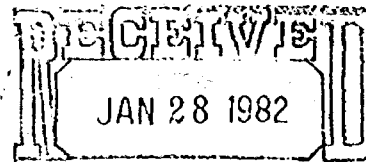
Sincerely yours,

(ORIG. SGD.) JAMES W. SHELTON

FOR Gene F. Daniel
Deputy Minerals Manager
Oil and Gas

Enclosure

cc:
HMOCD, Santa Fe
DS, Roswell (w/encl)



Getty Oil Company

OIL CONSERVATION DIVISION
SANTA FE

Central Exploration and Production Division

January 19, 1982

P.O. Box 730
Hobbs, New Mexico 88240

File: Cooper Jal Unit
Lea County, New Mexico

U.S. Geological Survey (3)
Conservation Division
P.O. Box 26124
Albuquerque, New Mexico 87125

Commissioner of Public Lands (3)
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico 87501

4402

Oil Conservation Division (3)
of the State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

All Working Interest Owners

Gentlemen:

Getty Oil Company respectfully submits for your approval a report of past operations and a plan of development for the year 1982 on the Cooper Jal Unit.

PAST OPERATIONS

The Cooper Jal Unit became effective October 1, 1970. Injection started in November, 1971 into the combined Jalmat and Langlie Mattix Pools. Additional wells were converted between 1971 and 1976. By November 1, 1976 there were 23 injectors in the Jalmat and 25 in the Langlie Mattix.

Cumulative oil production from the Jalmat since unitization was 1,886,532 barrels as of November 1, 1981. The average daily producing rate during October, 1981 was 337 barrels of oil from 21 producers.

Cumulative oil production from the Langlie Mattix Pool was 2,242,553 barrels as of November 1, 1981. The average daily producing rate during October, 1981 was 464 barrels of oil from 28 producers.

Cumulative injection into the Jalmat since unitization was 27,488,165 barrels of water as of December 1, 1981. The average daily injection rate during November 1981 was 7314 barrels at 898 psig.

Cumulative injection into the Langlie Mattix since unitization was 282,760,133 barrels water as of December 1, 1981. The average daily injection rate during November, 1980 was 7985 barrels at 907 psig.

Page Two

The unit was operated by Reserve Oil and Gas Company from the date of unitization until 1980 when Reserve Oil and Gas Company was merged into Getty Oil Company.

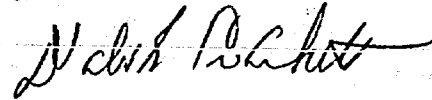
DEVELOPMENT PLANS FOR 1982

Plans for the unit are to perform remedial and stimulation workovers on wells as they are warranted for efficient oil recovery. Several tubing strings will probably be replaced, as scale and corrosion appears to be the major operational problem facing the unit.

Injection profiles will be conducted on a few of the injectors as warranted to aid in improving injection profiles and maintaining efficient waterflooding.

Very truly yours,

GETTY OIL COMPANY

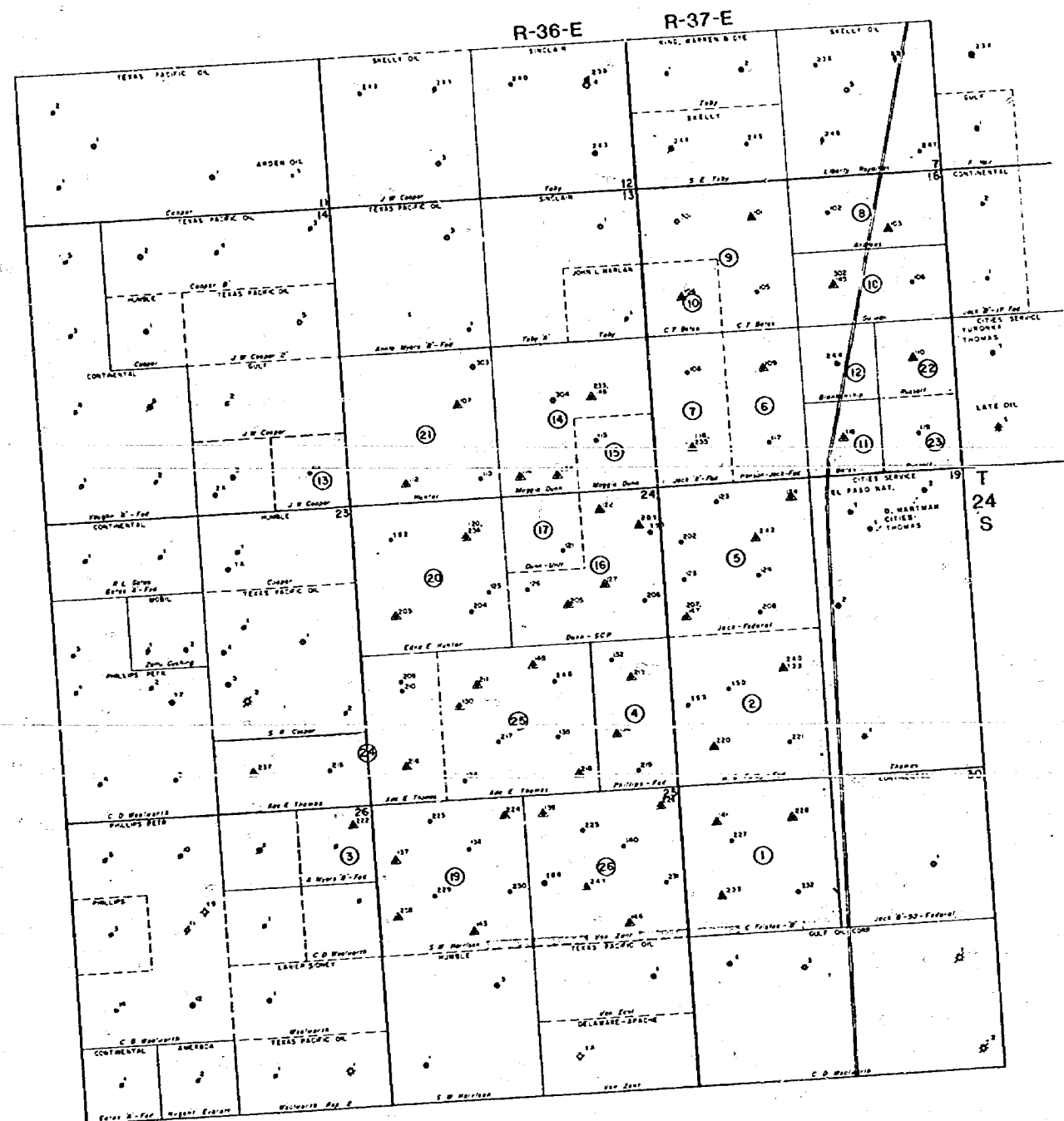


Dale R. Crockett
Area Superintendent

RH.

RH/ly

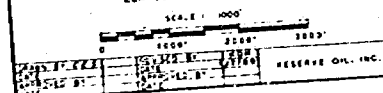
Enclosures

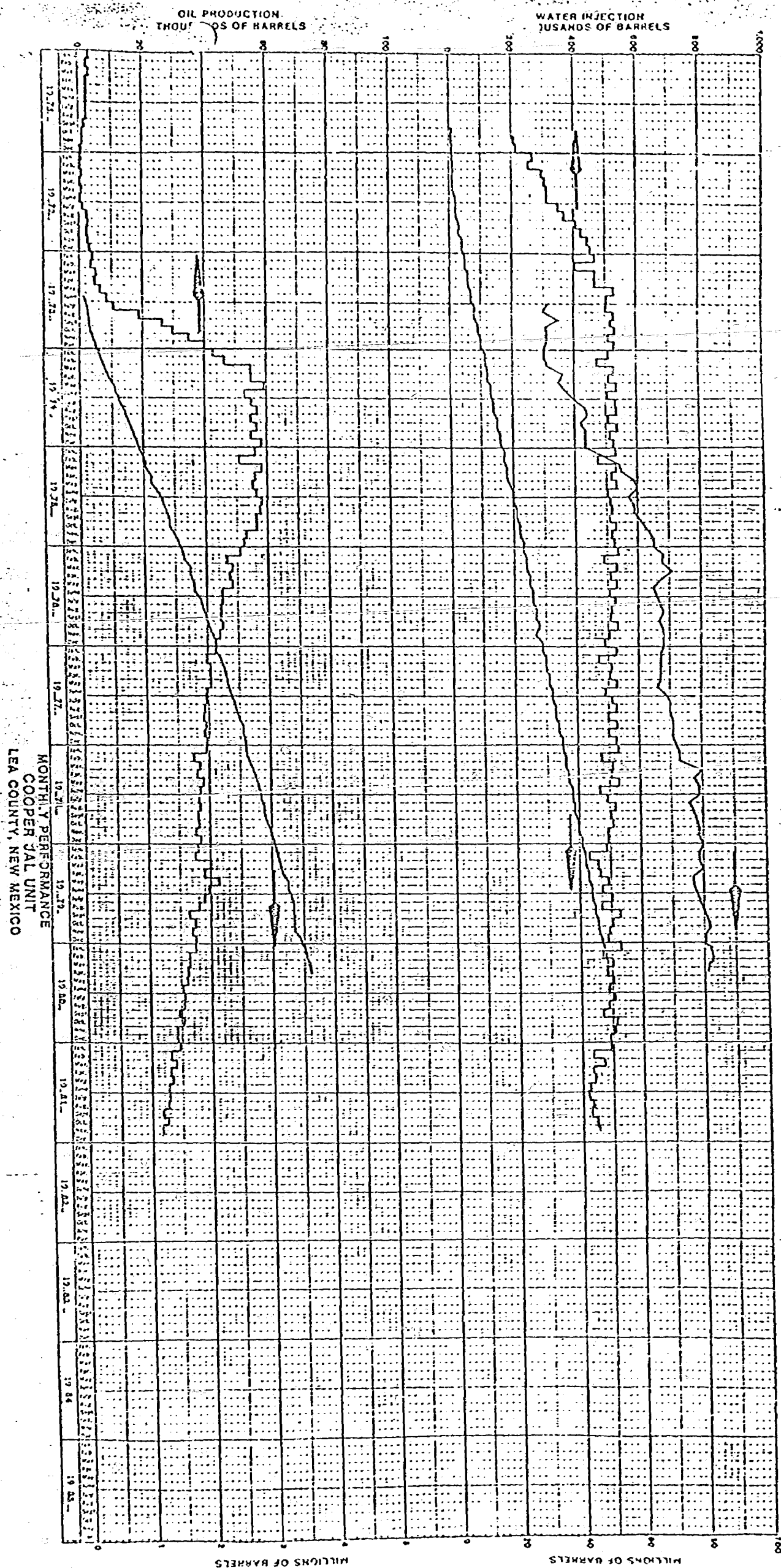


LEGEND

- ① UNIT BOUNDARY
- ② TRACT NUMBER
- ▲ INJECTION WELL
- △ LANGLIE MATTIX ZONE
- JALMAT OIL ZONE
- ✕ JALMAT GAS ZONE

COOPER JAL UNIT JALMAT AND LANGLIE MATTIX FIELDS LEA COUNTY, NEW MEXICO





OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

February 17, 1981

Getty Oil Company
P. O. Box 730
Hobbs, New Mexico 88240

Attention: Dale R. Crockett

Re: Case No. 4402
Cooper Jal Unit
1981 Plan of Development

Gentlemen:

We hereby approve the 1981 Plan of Development for the Cooper Jal Unit, Lea County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands.

Three approved copies of the Plan of Development are returned herewith.

Yours very truly,

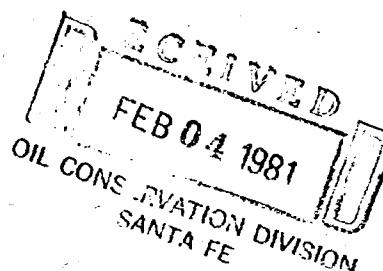
JOE D. RAHEY
Director

JDR/EP/pd
enc.

cc: U.S.G.S. - Albuquerque
Commissioner of Public Lands

C
O
P
Y

Getty



Getty Oil Company

Central Exploration and Production Division
P. O. Box 730
Hobbs, New Mexico 88240

January 29, 1981

File: Cooper Jal Unit
Lea County, New Mexico

4402

Director (3)
United States Geological Survey
P. O. Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands (3)
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico 87501

Oil Conservation Division (3)
of the State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

OK
2/6/81

Gentlemen:

Getty Oil Company respectfully submits for your approval a report of past operations and a plan of development for the year 1981 on the Cooper Jal Unit.

Past Operations

The Cooper Jal Unit became effective October 1, 1970. Injection started in November, 1971 into the combined Jalmat and Langlie Mattix Pools. Additional wells were converted between 1971 and 1976 so that the count of injectors in the Jalmat as of November 1, 1976 was 23, and in the Langlie Mattix as of November 1, 1976, 25.

Cumulative oil production from the Jalmat since unitization was 1,750,834 barrels on January 1, 1981. The average daily producing rate during December, 1980 was 521 barrels of oil from 21 producers.

Cumulative oil production from the Langlie Mattix Pool was 2,116,875 barrels on January 1, 1981. The average daily producing rate during December, 1980 was 392 barrels of oil from 28 producers.

Cumulative injection into the Jalmat since unitization was 25,021,465 barrels of water on January 1, 1981. The average daily injection rate during December, 1980 was 7,967 barrels at 872 psig.

Cumulative injection into the Langlie Mattix since unitization was 28,230,383 barrels water on January 1, 1981. The average daily injection rate during December, 1980 was 8,122 barrels at 932 psig.

The unit was operated by Reserve Oil and Gas Company from the date of unitization until this past year, when Reserve Oil and Gas Company was merged into Getty Oil Company.

Cooper Jal Unit
Lea County, New Mexico
January 29, 1981
Page Two (2)


Development Plans for 1981

Plans for the unit are to perform remedial and stimulation workovers on wells as they are warranted for efficient oil recovery. Several tubing string will probably be replaced, as scale and corrosion appears to be the major operational problem facing the unit.

Injection profiles will be conducted on a few of the injectors as warranted to aid in improving injection profiles and maintaining efficient waterflooding.

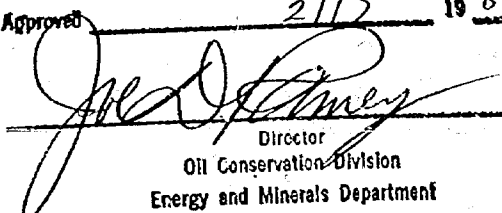
Very truly yours,

GETTY OIL COMPANY

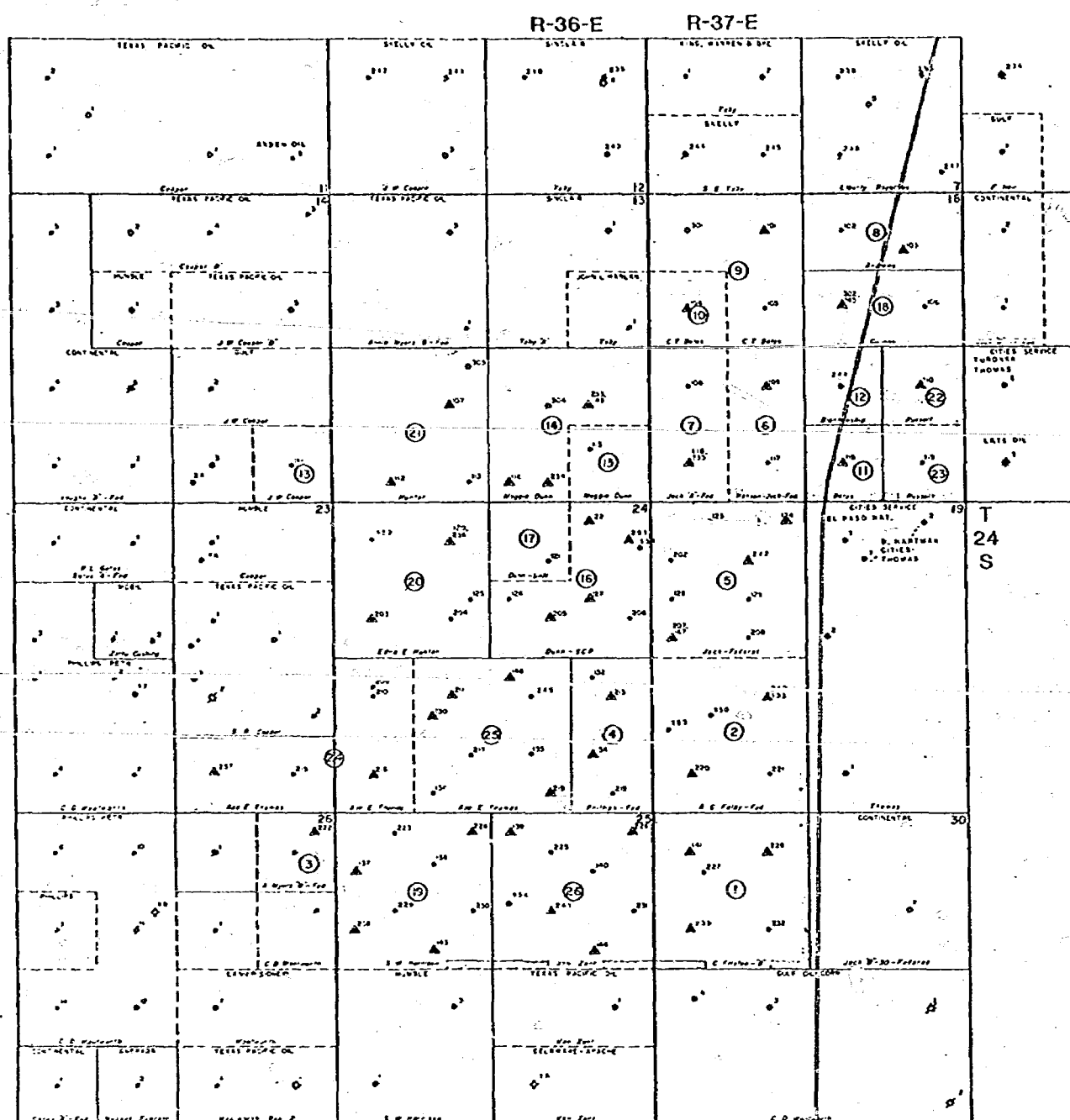

Dale R. Crockett
Hobbs Area Superintendent

JDM/ly

Attachments

Approved 2/17 19 81

Director
Oil Conservation Division
Energy and Minerals Department

THIS APPROVAL GRANTED SUBJECT TO LIKE APPROVAL
BEING GRANTED BY THE NEW MEXICO GEOLOGICAL
SURVEY AND BY THE COMMISSIONER OF PUBLIC LANDS
OF THE STATE OF NEW MEXICO.

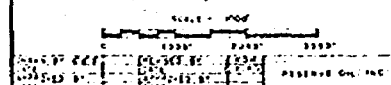


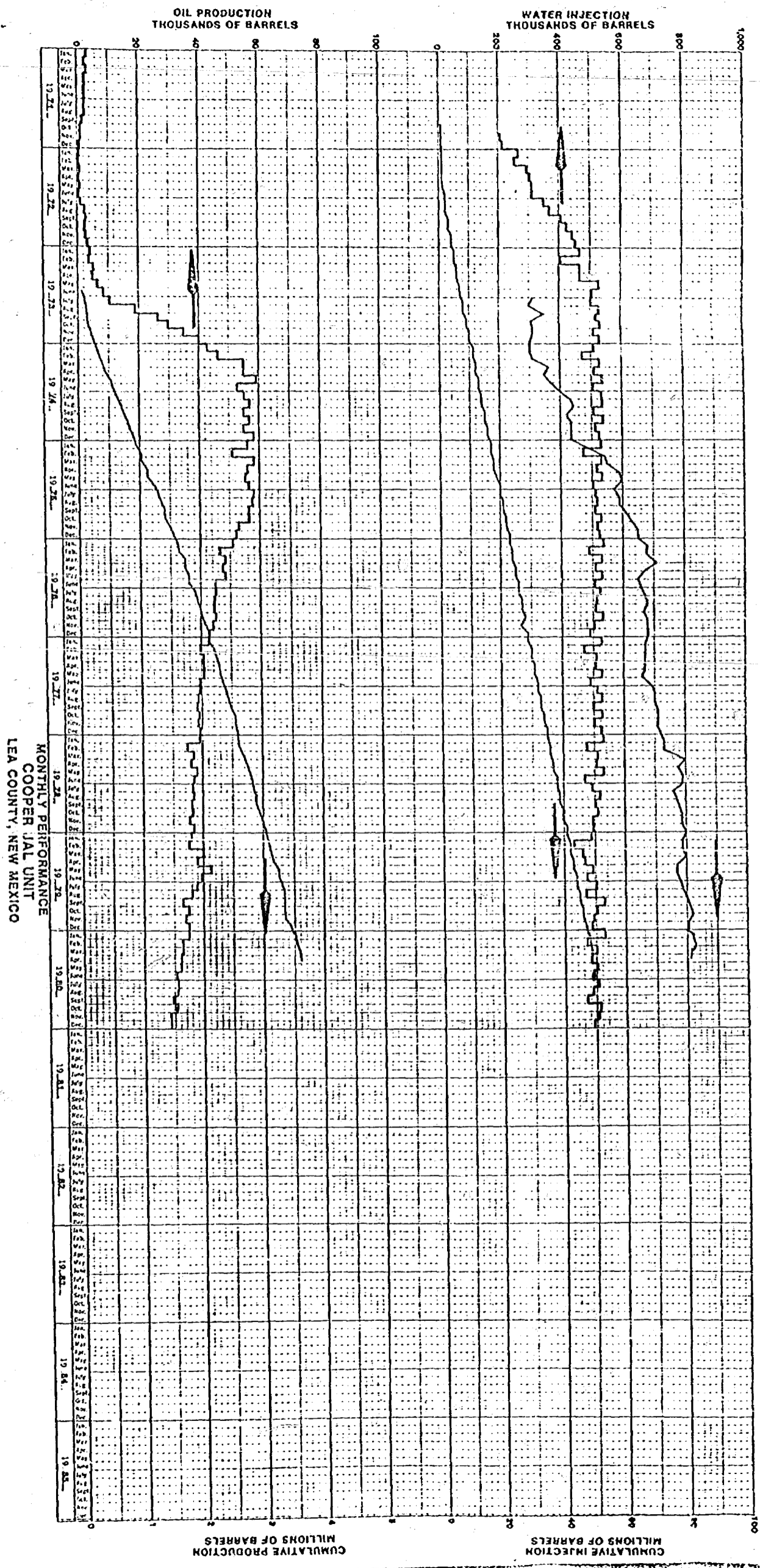
LEGEND

- UNIT BOUNDARY
- TRACE NUMBER
- ▲ INJECTION WELL
- 00 LANGHE MATIX ZONE
- 100 JALWAY OIL ZONE
- 300 JALWAY GAS ZONE

COOPER JAL UNIT

JALWAY AND LANGHE MATIX FIELDS
LEA COUNTY, NEW MEXICO





UNIT AGREEMENT

COOPER JAL UNIT

LEA COUNTY, NEW MEXICO

28.86 90 7ad
no 7ad
71.14 90 7ad

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
App	EXHIBIT NO. 1
CASE NO.	4402

CERTIFICATION - DETERMINATION

Pursuant to the authority vested in the Secretary of Interior as to Federal Lands, under the Act approved February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. Secs. 181, et seq., and delegated to the Oil and Gas Supervisor of the Geological Survey (33 F.R. 5812) I do hereby

- A. Approve the attached agreement for the development and operation of the Cooper Jal Unit, Lea County, New Mexico.
- B. Certify and determine that the unit plan of development and operation contemplated in the attached agreement is necessary and advisable in the public interest for the purpose of more properly conserving the natural resources.
- C. Certify and determine that the drilling, producing, rental, minimum royalty and royalty requirements of all Federal Leases committed to said agreement are hereby established, altered, changed, or revoked to conform with the terms and conditions of this agreement.

Dated

Regional Oil and Gas Supervisor,
UNITED STATES GEOLOGICAL SURVEY

Contract Number _____

UNIT AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

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UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION OF THE
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the 15th day of January, 1970,
by and between the parties subscribing, ratifying or consenting hereto, and
herein referred to as "parties hereto";

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty or
other oil or gas interests in the Unit Area subject to this Agreement; 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 unit plan of development or opera-
tion 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 Oil Conservation Commission of the State of New
Mexico is authorized by law (Art. 3, Ch. 65, Vol. 9, Part 2. 1953 Stat. Anno.)
to approve this agreement, and the conservation provisions hereof; and

WHEREAS, the parties hereto hold sufficient interests in the Cooper
Jal Unit Area covering the land hereinafter described to give reasonably effective
control of operations therein; and

WHEREAS, it is the purpose of the parties hereto, to enable institu-
tion and consummation of secondary recovery operations to conserve natural
resources, to 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 respective interests in the hereinafter defined Unit Area, and agree severally among themselves as follows:

ARTICLE I

ENABLING ACT AND REGULATIONS

1.1 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.

ARTICLE II

DEFINITIONS

2.1 For the purpose of this agreement, the following terms and expressions as used herein shall mean:

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

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

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

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

(e) "Supervisor" is defined as the Oil and Gas Supervisor of the United States Geological Survey for the region in which the Unit Area is situated.

(f) "Unitized Formation" means all of the Tansill, Yates, Seven Rivers and Queen Formations underlying the Unitized Land; said interval being the equivalent of the continuous interval occurring in Amerada Petroleum Corporation's A. G. Falby No. 1 (located 1,650 feet from the South line and

*Jalmar Oil
Jalmar Gas
Langhi Property*

990 feet from the West Line of Section 19, Township 24 South, Range 37 East, Lea County, New Mexico) at an indicated depth of 2,890 feet to 3,745 feet as recorded on the Schlumberger Electrical Log taken on December 4, 1948.

(g) "Unitized Substances" means all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate and all associated and constituent liquid or liquefiable hydrocarbons produced from the United Formation.

(h) "Tract" means each parcel of land shown as such and given a tract number in Exhibit "A" and as described in Exhibit "B".

(i) "Tract Participation" is defined as the percentage of participation as is shown on Exhibit "C" for allocating Unitized Substances to a Tract under this agreement.

(j) "Unit Participation" as used herein shall mean the sum of the Tract Participations as shown by Tracts for each Working Interest Owner in Exhibit "C" to the Unit Agreement.

(k) "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. Any interest in Unitized Substances which is a Working Interest as of the date the owner thereof executes or ratifies this agreement, or which at any time thereafter becomes a Working Interest, shall thenceforth be treated as a Working Interest for all purposes of this agreement.

(l) "Working Interest Owner" is defined as and shall mean any party hereto 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 Substances from the Unitized Formation and operation thereof hereunder.

(m) "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 in an oil and gas lease and any overriding royalty interest, oil payment interest, net profit contracts, or any other payment or burden which does not carry with it the right to search for and produce Unitized Substances.

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

(o) "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 the Unit Operator and the Working Interest Owners as provided in Article IX infra., and shall be styled "Unit Operating Agreement, Cooper Jal Unit, Lea County, New Mexico".

(p) "Unit Manager" is defined as the person or corporation appointed by the Unit Working Interest Owners, upon resignation or removal of the Unit Operator, to perform the duties of the Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Article VIII hereof.

(q) "Oil and Gas Rights" is defined as the right to explore, develop, and operate lands within the Unit Area for the production of Unitized Substances, or to share in the production so obtained or the proceeds thereof.

(r) "Unit Area" is defined as the lands described by Tracts in Exhibits "A" and "B".

(s) "Unit Operator" is defined as the party designated by Working Interest Owners to develop and operate the Unitized Formation, acting as operator and not as a Working Interest Owner.

(t) "Record Owner" is defined as the holder of the record title to a lease covering Federal Lands according to the applicable records of the Department of the Interior of the United States of America.

(u) "Unit Operations" means all operations conducted by the Unit Operator pursuant to this agreement and the Unit Operating Agreement for or on account of the development and operation of the Unitized Formation for the production of Unitized Substances.

(v) "Unit Equipment" means all personal property, lease and well equipment, plants, and other facilities and equipment taken over or otherwise acquired for the joint account for use in Unit Operations.

(w) "Unit Expense" means all cost, expense, or indebtedness incurred by Unit Operator pursuant to this agreement and the Unit Operating Agreement for or on account of Unit Operations.

ARTICLE III

UNIT AREA AND EXHIBITS

3.1 The following described land is hereby designated as constituting the Unit Area, all of said land being situated in Lea County, New Mexico, to-wit:

Township 24 South, Range 36 East

Township 24 South, Range 37 East

S/2 of Section 13

All of Section 18

SE/4 SE/4 of Section 14

W/2 of Section 19

All of Section 24

NW/4 of Section 30

S/2 SE/4 of Section 23

E/2 NE/4 of Section 26

N/2 of Section 25

containing 2,581 acres, more or less.

3.2 Exhibit "A" attached hereto is a map showing the Unit Area and the boundaries and identity of Tracts and leases in said Unit Area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each Tract and the percentage and kind of ownership in each Tract. Exhibit "C" is a schedule showing the percentage of participation of each Tract on the basis of the commitment of all tracts to this agreement. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. Exhibits "A", "B" and "C" shall be revised by the Unit Operator whenever changes in the Unit Area render such revision necessary, or when requested by the Supervisor, and the required

number of copies of such revision shall be filed with the Supervisor.

3.3 If it subsequently appears that any mechanical miscalculation has been made, Unit Operator, with the approval of Working Interest Owners and the Supervisor, may correct the mistake by revising the exhibits to conform to the facts. The revision shall not include any re-evaluation of engineering or geological interpretations used in determining Tract Participation. Any such revision of an exhibit shall be effective at 7:00 A.M. on the effective date of this agreement.

ARTICLE IV

EXPANSION OF UNIT AREA

4.1 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 to conform with 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 of the proposed expansion to each Working Interest Owner in the Unit and in the tract proposed to be included in the Unit, setting out the basis for admission, the Unit Participation to be assigned to each tract in the enlarged Unit and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise) if Working Interest Owners having in the aggregate eighty percent (80%) Phase II Unit Participation have agreed to such tract or tracts being brought into the Unit, then Unit Operator shall, after preliminary concurrence by the Director:

(1) 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 Unit Participation to be assigned thereto and the effective date thereof; and

(2) Deliver copies of said notice to the Commissioner, the Supervisor, each Working Interest Owner and to the lessee and lessor whose interests are affected, advising such parties that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion; and

(3) File, upon the expiration of said (30) day period as set out in (2) immediately above, with the Commission and Supervisor the following:
(a) Evidence of mailing or delivering copies of such notice of expansion; (b) An application for such expansion; (c) An instrument containing the appropriate joinders in compliance with the participation requirements of Article XIV (Tracts Qualified for Participation); and (d) Copy of any objections received.

(4) There shall be no retroactive allocation or adjustment of Unit expense or of interests in the Unitized Substances produced, or proceeds thereof prior to the effective date of expansion and qualification under Article XIV; however, this limitation shall not prevent an adjustment of investment by reason of the enlargement.

4.2 The expansion shall, after due consideration of all pertinent information and approval by the Supervisor, become effective as of the date prescribed in the notice thereof, preferably the first day of a month subsequent to the date of notice.

4.3 In any approved expansion of the Unit Area the revised Tract Participations of those tracts which were committed prior to each such expansion shall remain in the same ratio one to another.

ARTICLE V

UNITIZED LAND AND UNITIZED SUBSTANCES

5.1 All land committed to this agreement as to the Unitized Formation shall constitute land referred to herein as "Unitized Land" or "land subject to this agreement". All oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate and all associated and constituent liquid or liquefiable hydrocarbons produced from the lands committed to this agreement

as to the Unitized Formation are unitized under the terms of this agreement and hereinafter are called "Unitized Substances". Nothing herein shall be construed to unitize, pool or in any way affect the oil, gas and other minerals that may be produced from any formation other than the Unitized Formation as above described.

ARTICLE VI

UNIT OPERATOR

6.1 Reserve Oil and Gas Company is hereby designated the 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 the Unit Operator as the owner of a working interest when such an interest is owned by it.

ARTICLE VII

RESIGNATION OR REMOVAL OF UNIT OPERATOR

7.1 Unit Operator shall have the right to resign at any time, but such resignation shall not become effective 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 and the Supervisor, and until all Unit Wells are placed in a condition satisfactory to the Supervisor for suspension, abandonment, or operations, whichever is intended by the Unit Manager, 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.

7.2 The Unit Operator shall be subject to removal by Working Interest Owners having in the aggregate eighty percent (80%) or more of the Phase II Unit Participation remaining after excluding the Phase II Unit

Participation of the Unit Operator. Such removal shall be effective upon notice thereof to the Supervisor.

7.3 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.

7.4 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 wells, equipment, books and records, materials, appurtenances and any other assets, used in connection with the Unit operations and owned by the Working Interest Owners 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 the removal of any material, equipment or appurtenances needed for the preservation of any well. Nothing herein contained shall be construed to relieve or discharge any Unit Operator who resigns or is removed hereunder from any liability or duties accruing or performable by it prior to the effective date of such resignation or removal.

ARTICLE VIII

SUCCESSOR UNIT OPERATOR

8.1 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 as herein provided. 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 approved by the Supervisor. If no successor

Unit Operator is selected and qualified as herein provided, the Director may declare this agreement terminated.

8.2 In selecting a successor Unit Operator the affirmative vote of three or more Working Interest Owners having a total of sixty-five percent (65%) or more of the total voting interest in the Unit shall prevail; provided, that if any one Working Interest Owner has a voting interest of more than thirty-five percent (35%), its negative vote or failure to vote shall not be regarded as sufficient unless supported by the vote of one or more other Working Interest Owners having a total voting interest of at least five percent (5%). If the Unit Operator who is removed votes only to succeed itself or fails to vote, the successor Unit Operator may be selected by the affirmative vote of at least fifty-one percent (51%) of the voting interest remaining after excluding the voting interest of Unit Operator so removed. In voting under this Section 8 each Working Interest Owner shall have a voting interest equal to its Phase II Participation.

ARTICLE IX

ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT

9.1 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 share 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 Unit Agreement shall prevail. Three (3)

true copies of any Unit Operating Agreement executed pursuant to this Article shall be filed with the Supervisor as required prior to approval of this agreement.

ARTICLE X

RIGHTS AND OBLIGATIONS OF UNIT OPERATOR

10.1 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. Upon request by Unit Operator, 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.

ARTICLE XI

PLAN OF OPERATIONS

11.1 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 to put into effect a secondary recovery project in order to effect additional recovery of Unitized Substances, prevent waste and conserve natural resources consistent with good engineering practices expected of a prudent operator. 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 and the Supervisor, inject into the Unitized Formation through any well or wells completed therein, brine, water, air, gas, oil, liquid petroleum gases and any one or more other substances or combinations of

substances whether produced from the Unitized Formation or not, and that the location of input wells and the rate of injection therein and the rate of production shall be governed by standards of good geologic and petroleum engineering practices and conservation methods. The Working Interest Owners and the Supervisor shall be furnished periodic reports on the progress of the plan of operation and any revision or changes thereto; provided, however, that any revision of the plan of operation involving a deviation from the initial plan of operation shall be subject to the consent and approval of the Working Interest Owners and the Supervisor.

11.2 The initial plan of operation shall be filed with the Supervisor 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 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. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for like approval a plan for an additional specified period of operation. Notwithstanding anything to the contrary, herein contained, if Unit Operator fails to commence Unit Operations for the secondary recovery of Unitized Substances from the Unit Area within six months after the effective date of this agreement or any extension thereto approved by the Supervisor, this agreement shall terminate automatically upon the expiration of said six month period.

11.3 The parties hereto subject to prior rights, if any, grant to the Unit Operator the use of brine or water or both from any formation in and under the Unitized Land for injection into the Unitized Formation insofar as these rights are granted by the oil and gas leases.

ARTICLE XII

EASEMENTS OR USE OF SURFACE

12.1 The parties hereto, to the extent of their rights and interest, hereby grant to Working Interest Owners the right to use as much of the surface

of the land within the Unit Area as may reasonably be necessary for Unit Operations, including the free use of water from the Unit Area for Unit Operations, except water from any well, lake, pond or irrigation ditch of Royalty Owners, provided that, nothing herein shall be construed as leasing or otherwise conveying to Working Interest Owners a site for a water, gas injection, processing or other plant or camp site.

ARTICLE XIII

TRACT PARTICIPATION

13.1 In Exhibit "C" attached hereto there are listed and numbered the various Tracts within the Unit Area, and set forth opposite each Tract are figures which represent the percentage of participation allocated to each Tract in the Unit Area assuming that all tracts are committed hereto.

13.2 Tract Participation of each Tract shall be as shown within Exhibit "C" and shall be determined as follows:

(a) Phase I Participation: Beginning at 7:00 A.M. on the effective date hereof and remaining in effect until 7:00 A.M. on the first day of the month next following the month in which the cumulative amount of oil produced from the Tansill, Yates, Seven Rivers and Queen Formations underlying all of the Tracts described in Original Exhibit "B" from and after January 1, 1968, equals 1,000,000 barrels, the Tract Participation of each Tract shall be as shown in Phase I of Exhibit "C" and shall be determined from the following formula:

Tract Participation Percentage, Phase I equals 100%

$$\frac{A}{B}$$

Where: A equals total income from oil, casinghead gas and dry gas produced from such Tract from the Unitized Formation during the period January 1, 1967 to January 1, 1968.

B equals the summation of the total income from oil, casinghead gas and dry gas produced from all Tracts

in the Unit Area from the Unitized Formation during
the period January 1, 1967 to January 1, 1968.

(b) Phase II Participation: Beginning at 7:00 A.M. on the first day of the month next following the date when the 1,000,000 barrels referred to in (a) above shall have been produced, the Tract Participation of each Tract shall be as shown under Phase II of Exhibit "C" and shall be determined from the following formula:

Tract Participation Percentage, Phase II equals 100%

$$\frac{C}{D}$$

Where: C equals the estimated quantity of oil ultimately recoverable from the Unitized Formation underlying each such tract by primary recovery operations.

D equals the summation of the estimated quantity of oil ultimately recoverable from the Unitized Formation underlying all such Tracts by primary recovery operations.

13.3 In the event less than all tracts are qualified for participation on the effective date hereof, the Tract Participations shall be calculated on the basis of all qualified Tracts rather than all Tracts in the Unit Area and Exhibit "C" shall be revised by the Unit Operator accordingly to show the percentage of participation of each tract.

ARTICLE XIV

TRACTS QUALIFIED FOR PARTICIPATION

14.1 As the objective of this agreement is to have lands in the Unit Area operated and entitled to participation under the terms hereof, it is agreed that, notwithstanding anything else herein, no joinder shall be considered a commitment to this agreement unless the Tract involved is qualified under this Article. On and after the effective date hereof, the Tracts within the Unit Area which shall be entitled to participation (as provided in Article XIII

hereof) in the production of Unitized Substances therefrom shall be those Tracts within the Unit Area as shown on Exhibit "A" and described in Exhibit "B" that corner or have a common boundary, (Tracts separated only by a public highway or a railroad right-of-way shall be considered to have a common boundary), and which are otherwise qualified as follows: (The record title owner shall replace the Royalty Interest with respect to Federal lands for the purposes of this Article.)

(a) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest therein have become parties hereto and as to which Royalty Owners owning seventy-five percent (75%) or more of the Royalty Interest therein have become parties hereto.

(b) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest therein have become parties hereto and as to which Royalty Owners owning less than seventy-five percent (75%) of the Royalty Interest therein have become parties hereto, and, further, as to which:

(1) All Working Interest Owners in any such Tract have joined in a request for the inclusion of such Tract, and

(2) Seventy-five percent (75%) of the combined voting interests of Working Interest Owners in all Tracts meeting the requirements of paragraph (a) hereof have voted in favor of including such Tract.

For the purpose of this paragraph (b), a Working Interest Owner's "voting interest" shall be equal to the ratio (expressed in percent) which its aggregate Phase I Participation in all Tracts qualifying under paragraph (a) bears to the total Phase I Participation of all Working Interest Owners in all Tracts qualifying under paragraph (a).

(c) Each Tract as to which Working Interest Owners owning less than one hundred percent (100%) of the Working Interest therein have become parties hereto, regardless of the percentage of Royalty Interest therein which is committed hereto, and, further, as to which:

(1) The Working Interest Owner operating any such Tract and all of the other Working Interest Owners in such Tract who have become parties hereto have joined in a request for inclusion of such Tract and at least 85% of such parties have executed and delivered an indemnity agreement indemnifying and agreeing to hold harmless the other Working Interest Owners in the Unit, their successors and assigns, against all claims and demands which arise out of the inclusion of such Tract, which may be made by the owners of Working Interest in such tract who are not parties hereto; and

(2) Seventy-five percent (75%) of the combined voting interest of Working Interest Owners in all Tracts meeting the requirements of paragraph (a) and (b) have voted in favor of the inclusion of such Tract and acceptance of the indemnity agreement.

For the purpose of this paragraph (c), a Working Interest Owner's voting interest shall be equal to the ratio (expressed in percent) which its aggregate Phase I Participation in all Tracts qualifying under paragraphs (a) and (b) bears to the total Phase I participation of all Working Interest Owner's in all Tracts qualifying under paragraphs (a) and (b). Upon qualification of such a Tract, the Unit Participation which would have been attributed to the nonsubscribing owners of the Working Interest in such Tract, had they become parties to this agreement and the Unit Operating Agreement, shall be attributed to the Working Interest Owners in such Tract who have become parties to such agreements, in proportion to their respective Working interests in the Tract.

(d) Each Tract, regardless of the percentage of Working Interest or Royalty Interest therein that has been committed hereto, as to which (1) the Working Interest Owner who operates the Tract has become a party to this agreement and (2) Working Interest Owners having seventy-five percent (75%) of the combined voting interest of Working Interest Owners in all Tracts that meet the requirements of paragraphs (a), (b) and (c) vote in favor of the inclusion of such Tract. For the purpose of this paragraph (d) the voting interest

of a Working Interest Owner shall be equal to the ratio that its Phase I Unit Participation attributable to Tracts that qualify under paragraphs (a), (b) and (c) bears to the total Phase I Unit Participation of all Working Interest Owners attributable to all Tracts that qualify under paragraphs (a), (b) and (c). Upon qualification of such a Tract, the Unit Participation that would have been attributed to the nonsubscribing owners of the Working Interest in such Tract, had they become parties to this agreement and the Unit Operating Agreement shall be attributed to the Working Interest Owners in all Tracts that meet the requirements of paragraphs (a), (b) and (c) in proportion to their respective Unit Participations attributable to the Tracts that qualify under paragraphs (a), (b) and (c).

14.2 If on the effective date of this agreement there is any Tract or Tracts which have not been qualified 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 Supervisor, file therewith, or as soon as practicable, a schedule of those Tracts which are entitled to participate in the production of Unitized Substances. This schedule of participation shall be revised Exhibit "C" and upon approval thereof by the Supervisor shall become a part of this agreement and shall govern the allocation of production of Unitized Substances until the effective date of a new schedule approved by the Supervisor.

ARTICLE XV

ALLOCATION OF UNITIZED SUBSTANCES

15.1 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 qualified 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, Exhibit "C". The amount of Unitized Substances so allocated to each Tract (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.

15.2 The Unitized Substances allocated to each Tract shall be distributed among, or accounted for, to the parties executing, consenting to or ratifying this agreement who otherwise are entitled to share in the production from such Tract in the same manner, in the same proportion, and upon the same conditions, as they would have participated and shared in the production from such Tracts, or in the proceeds thereof, had this agreement not been entered into; and with the same legal force and effect.

15.3 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.

15.4 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 percentage 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.

15.5 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 or by purchase from such owners. Each Working Interest Owner and the parties entitled thereto shall have the continuing right to receive such production in kind at a common 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 Article XVI 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. If a Royalty Owner has the right to take in kind a share of Unitized Substances and fails to do so, the Working Interest Owner whose Working Interest is subject to such Royalty Interest shall be entitled to take in kind such share of the Unitized Substances.

15.6 If any party fails to take in kind or separately dispose of its share of Unitized Substances, Unit Operator shall have the right for the time being and subject to revocation at will by the party owning the share, to sell, or otherwise dispose of such production to itself or to others on a day to day basis at not less than the prevailing market price in the area for like production. The proceeds of the Unitized Substances so disposed of by Unit Operator shall be paid to the party entitled thereto.

15.7 Notwithstanding the foregoing, the Unit Operator shall not make a sale into interstate commerce of any Working Interest Owner's share of gas production without first giving such Working Interest Owner sixty (60) days notice of such intended sale.

15.8 Any Working Interest Owner 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 hereto harmless against all claims, demands and causes of action for such Royalty on the lease or leases and Tracts contributed by it to the Unit.

15.9 If, after the effective date of this agreement, there is any Tract or Tracts that are subsequently committed hereto, as provided in Article

IV (Expansion of Unit Area) 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 Article XXXII (Non-Joinder and Subsequent Joinder) or if any Tract is excluded from the Unit Agreement as provided for in Article XXX (Loss of Title), the schedule of participation as shown in Exhibit "C", subject to Article XIII (Tract Participation), and Article XIV (Tracts Qualified for Participation), shall be revised by the Unit Operator and distributed to the Working Interest Owners and the Supervisor to show the revised Tract Participation of all the qualified Tracts; and the revised Exhibit "C", upon approval by the Supervisor shall govern all the allocation of production of Unitized Substances from and after the effective date thereof until a revised schedule is approved as hereinabove provided.

15.10 Unit Operator may use as much of the Unitized Substances as may reasonably be deemed necessary for the operation and development of the Unitized Lands, including but not limited to the injection of Unitized Substances into the Unitized Formation, provided such operations are in accordance with a plan of operations approved by the Supervisor.

15.11 No Royalty shall be payable upon or with respect to Unitized Substances used or consumed in the operation or development of the Unitized Land or which may be otherwise unavoidably lost or consumed in production, handling, treating, transportation or storing of Unitized Substances, provided such operations are in accordance with a plan of operations approved by the Supervisor.

ARTICLE XVI

ROYALTY SETTLEMENT

16.1 The United States of America and all Royalty Owners who, under an existing contract, are entitled to take in kind a share of the 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 lessee 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 on Unitized Substances as allocated to each Tract in accordance with the terms of this Unit Agreement.

16.2 If the amount of production or the proceeds thereof accruing to any Royalty Owner (except the United States of America) in a Tract depends upon the average production per well or the average pipeline runs per well from such Tract during any period of time, then such production shall be determined from and after the effective date hereof by dividing the quantity of Unitized Substances allocated hereunder to such Tract during such period of time by the number of wells located thereon capable of producing as of the effective date hereof, provided, however, any Tract without a producible well on said effective date shall, for the purposes herein contained, be considered as having one such well thereon.

16.3 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 Article XI (Plan of Operations), a like amount of gas, less appropriate deductions for loss or depletion 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 provided further that such right of withdrawal shall terminate as of the effective date of termination of the Unit Agreement.

16.4 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 lands as provided herein at the rate or rates as may be authorized by law or regulation; provided, that for leases on which the royalty rate depends on the daily average production per well, such average production shall be determined in accordance with the operating regulations as though the unitized lands were one lease.

16.5 Each Royalty Owner (other than 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 other parties shall be adjusted accordingly.

ARTICLE XVII

RENTAL SETTLEMENT

17.1 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 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.

ARTICLE XVIII

CONSERVATION

18.1 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.

ARTICLE XIX

DRAINAGE

19.1 The Unit Operator shall take such measures as the Supervisor deems appropriate and adequate to prevent drainage of Unitized Substances from Unitized Land by wells on land not subject to this agreement.

ARTICLE XX

LEASES AND CONTRACTS CONFORMED AND EXTENDED

20.1 The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas on lands committed to this agreement are hereby expressly modified and amended to the extent necessary 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, by his approval hereof, or by the approval hereof by his duly authorized representative, does hereby establish, alter, change or revoke the drilling, producing, rental minimum Royalty and Royalty requirements of Federal leases committed hereto and the regulations of Federal leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this agreement.

20.2 Without limiting the generality of the foregoing, all leases, sub-leases 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 separately owned Tract subject to this agreement, regardless of whether there is any development of any particular Tract of the Unitized Land.

(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 Secretary or his duly authorized representative, shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every Tract of Unitized Lands. A suspension of drilling or producing operation on specified lands shall be applicable only to such lands.

(d) Each lease, sub-lease 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) The segregation of any Federal lease committed to this agreement is governed by the following provision in the fourth paragraph of Article 17(j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 781-784: "Any (Federal) lease heretofore or hereafter committed to any such (Unit) plan 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 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".

ARTICLE XXI

COVENANTS RUN WITH LAND

21.1 All terms and conditions herein contained shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in title until this agreement terminates, and any

grant, transfer, conveyance or any passage of any interest in land or leases subject hereto, no matter how accomplished, shall be and hereby is conditioned upon the assumption of all privileges and obligations by such successor in interest. By way of illustration, but not limitation, if any Working Interest Owner shall, after executing this agreement, create any overriding royalty, production payment or any similar interest or interests, the new owner or owners of such interest or interests shall be bound by the terms of this agreement and the Unit Operating Agreement. 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 a 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.

ARTICLE XXII

EFFECTIVE DATE AND TERM

22.1 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 7:00 A.M. of the first day of the calendar month next following:

(a) The execution or ratification of this agreement and the Unit Operating Agreement by Working Interest Owners owning Tracts with a combined Phase I Unit Participation of at least eighty-five percent (85%), and the execution or ratification of this agreement by Royalty Owners owning Tracts with a combined interest of at least sixty-five percent (65%) of the Royalty Interest in the Unit Area, calculated on the basis of Phase I Unit Participation; and

(b) The approval of this agreement by the Supervisor and Commission.

(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 July 1, 1971, this agreement shall ipso facto expire on said date (hereinafter called "expiration date") and thereafter be of no further force of effect unless prior thereto this agreement has been executed or ratified by Working Interest Owners owning a combined Phase I Participation of at least eighty percent (80%), and that Working Interest Owners owning in the aggregate sixty-five percent (65%) or more of the total Phase I Participation 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.

22.2 Unit Operator shall, within thirty (30) days after the effective date of this agreement, file for record in the office 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.

22.3 The term of this agreement shall be for and during the time that Unitized Substances are produced in quantities sufficient to pay for the cost of producing same from wells on the Unitized Land and so long thereafter as diligent drilling, reworking or other operations (including secondary recovery operations) are prosecuted thereon without cessation of more than ninety (90) consecutive days, and so long thereafter as Unitized Substances are produced as aforesaid.

22.4 This agreement may be terminated at any time for any other reason with the approval of the Supervisor by at least three Working Interest Owners owning seventy-five percent (75%) Unit Participation which is in effect at the time the vote is taken. Notice of any such termination shall be given to all parties hereto, and a copy filed by Unit Operator in the office of the County

Clerk of Lea County, New Mexico.

22.5 Upon termination of this agreement, Unit Operations shall cease and the parties hereto shall be governed by the terms and provisions of the leases and contracts affecting the separate Tracts.

22.6 If not otherwise provided 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.

ARTICLE XXIII

RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION

23.1 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.

23.2 Powers in this Article vested in the Director shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen (15) days from notice, and thereafter subject to administrative appeal before becoming final.

ARTICLE XXIV

NON-DISCRIMINATION

24.1 In connection with the performance of work under this agreement, the Unit Operator agrees to comply with all of the provisions of Section 202(1) to (7), inclusive, of Executive Order 11246, (30 F.R. 12319), which are hereby incorporated by reference in this agreement.

ARTICLE XXV

APPEARANCES

25.1 Unit Operator, after notice to other parties affected, shall have the right to appear for or on behalf of any and all interests affected hereby before the Department and to appeal from any order issued under the rules and regulations of the Department, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Department, 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.

ARTICLE XXVI

NOTICES

26.1 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.

ARTICLE XXVII

NO WAIVER OF CERTAIN RIGHTS

27.1 Nothing in this agreement contained shall be construed as a waiver of 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 of the United States or the 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.

ARTICLE XXVIII

PERSONAL PROPERTY EXCEPTED

28.1 Each of the Working Interest Owners hereto has heretofore individually placed in or on the wells drilled by such Working Interest Owner on its leases or interests and in or on the land covered by said leases or interests certain casing, casing flanges, tubing, rods, pipes, tanks as well as other lease and well equipment or other personal property (to all of which the provisions hereof are applicable whether similar or dissimilar in nature to the foregoing enumeration). As to all of such equipment, the installing Working Interest Owner has the contractual right in and under its respective leases to remove same from the premises, and the installation thereof by said Working Interest Owner was with the intention and understanding that all of such equipment would be and remain personal property and that no part thereof would be or become fixtures to the realty. The Working Interest Owners hereto have dealt separately among themselves and do hereby make a separate agreement with each other with respect to such lease and well equipment and all other such personal property located in or on the well or their respective leases, on the one hand, and the realty, leasehold estates, and the wells (exclusive of all equipment in or on said wells) located on and the Unitized Substances underlying the Unit Area, on the other hand. To that end, the working Interest Owners have severed, and do hereby sever for all purposes of this agreement, all such lease and well equipment and other such personal property which may be located in or on the respective leases or in or on the wells thereon from the real leasehold estates, and the wells located on and the Unitized Substances underlying the Unit Area. To conform their respective investments in such equipment, Working Interest Owners have made a separate agreement with each other with respect thereto.

ARTICLE XXIX

UNAVOIDABLE DELAY

29.1 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 the Unit Operator, despite the exercise of due care and diligence, is prevented from complying with such obliga-

tions, 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. No Unit obligation which is suspended pursuant to this section shall become due less than thirty (30) days after it has been determined that the suspension is no longer applicable. The determination of creditable "unavoidable delay" time shall be made by Unit Operator subject to the approval of the Supervisor.

ARTICLE XXX

LOSS OF TITLE

30.1 If any Tract of Unitized Land ceases to have sufficient Working Interest or Royalty Interest committed to this agreement to meet the conditions of Article XIV because of failure of title to any party hereto, such Tract shall be regarded as not committed hereto as of 7:00 A.M. on the first day of the calendar month in which such failure of title is finally determined; provided, however, that no such Tract shall be so regarded if same can be re-qualified under said Article XIV within ninety (90) days after the date on which such title failure was finally determined. If any such Tract cannot be so re-qualified, Unit Operator shall recompute the Tract Participation of each Tract of Unitized Land remaining subject to this agreement so that such Tract Participation shall remain in the same ratio one to another. Thereafter, Unit Operator shall revise Exhibits "C" conformably with such recomputation. Each such revised exhibit shall be effective at 7:00 A.M. on the first day of the calendar month in which such failure of title is finally determined. If title to a Working Interest fails, the rights and obligations of Working Interest Owners by reason of such failure shall be governed by the Unit Operating Agreement. If title to a Royalty Interest fails, but the Tract to which it relates remains committed to this agreement, the Royalty Owner whose title failed shall not be entitled to participate hereunder insofar as its participation is based on such

lost Royalty Interest. In the event of a dispute as to the title of any Working or Royalty Interest, or other interest subject hereto, payment or delivery on account thereof may be withheld without liability or interest until the dispute is finally settled; provided, that as to Federal land or leases, no payments of funds due the United States of America shall be withheld, but such funds shall be deposited as directed by the Supervisor 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.

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

ARTICLE XXXI

BORDER AGREEMENTS

31.1 Subject to the approval of the Supervisor, the Unit Operator upon the concurrence of at least three Working Interest Owners owning at least sixty-five percent (65%) of Unit Participation which is in effect at the time the vote is taken may enter into a border-protection agreement or agreements with the Working Interest Owners of lands adjacent to the committed Tracts with respect to the operations in the border area for the maximum ultimate recovery, conservation purposes and proper protection of the parties and interests.

ARTICLE XXXII

JOINDER IN DUAL CAPACITY

32.1 Execution as herein provided by any party either as a Working Interest Owner or as a Royalty Owner shall commit all interests that may be owned or controlled by such party, provided that any party owning a Working Interest must also execute the Unit Operating Agreement for his Working Interest to be committed hereto.

ARTICLE XXXIII

NON-JOINDER AND SUBSEQUENT JOINDER

33.1 Joinder by any Royalty and Record Owner, at any time, must

be accompanied by appropriate joinder of the corresponding Working Interest Owner in order for the interest of such Royalty and Record Owner to be regarded as 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 committed to this Unit Agreement.

33.2 Any oil or gas interest in the Unitized Formation not committed hereto prior to submission of this agreement for final approval may thereafter be committed hereto upon compliance with the applicable provisions of this Article and of Article XIV (Tracts Qualified for Participation) hereof, at any time up to the effective date hereof on the same basis of participation as provided in said Article XIV, 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.

33.3 It is understood and agreed, however, that from and after the effective date hereof the right of subsequent joinder by a Working Interest Owner as provided in this Article shall be subject to such requirements or approvals and on such basis as may be agreed upon by Working Interest Owners having not less than eighty percent (80%) Unit Participation which is in effect at the time the vote is taken and approved by the Director or Supervisor. Such subsequent joinder by a proposed Working Interest Owner must be evidenced by his execution or ratification of this agreement and the Unit Operating Agreement. Such joinder 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 joinder to this agreement shall be effective at 7:00 A.M. as of the first day of the month following the filing with 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 joinder by the Supervisor is duly made within sixty (60) days after such filing.

ARTICLE XXXIV

TAXES

34.1 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 share of said Unitized Substances. No such taxes shall be charged to the United States nor to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

ARTICLE XXXV

CONFLICT OF SUPERVISION

35.1 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 in and about any matters or things concerning which it is required herein that such concurrence be obtained. The parties hereto, agree that all powers and authority are vested in the Commission in and by any 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.

ARTICLE XXXVI

NO PARTNERSHIP

36.1 The duties, obligations and liabilities of the parties hereto are intended to be several and not joint or collective. This agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligations as herein provided.

ARTICLE XXXVII

PRODUCTION AS OF THE EFFECTIVE DATE

37.1 Unit Operator shall make a proper and timely gauge of all leases and other tanks on Unitized Land in order to ascertain the amount of merchantable oil above the pipeline connection in such tanks as of 7:00 A.M. on the effective date hereof. The oil that is a part of the prior allowable of the wells from which it was produced shall be and remain the property of the Interest Owner entitled thereto, the same as if the Unit had not been formed; and the responsible Working Interest Owner shall promptly remove said oil from Unitized Land. Any such oil not so removed may be sold by Unit Operator for the account of such Working Interest Owner, subject to the payment of all Royalty to Royalty Owners under the applicable lease or leases and other contracts. The oil that is in excess of the prior allowable of the wells from which it was produced shall be regarded as Unitized Substances produced after effective date hereof.

37.2 If, as of the effective date hereof, any Tract is overproduced with respect to the allowable of the wells on that Tract and the amount of overproduction has been sold or otherwise disposed of, such overproduction shall be regarded as a part of the Unitized Substances produced after the effective date hereof and shall be charged to such Tract as having been delivered to the parties entitled to Unitized Substances allocated to such Tract.

ARTICLE XXXVIII

COUNTERPARTS

38.1 This agreement may be executed in any number of counter-
parts, no one of which needs to be executed by all parties and may be ratified
or consented to by separate instruments in writing specifically referring here-
to, and shall be binding upon all those parties who have executed such a counter-
part, 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 land within
the above described Unit Area.

IN WITNESS WHEREOF, the parties hereto have executed this
agreement on the dates shown opposite their respective signatures.

RESERVE OIL AND GAS COMPANY

WITNESSES:

By John N. Penzance
Assistant Secretary

By Paul D. Meadows *JD*
Vice President

Dated: January 21, 1970

THE STATE OF TEXAS |
COUNTY OF DALLAS |

The forgoing instrument was acknowledged before me this 21st day
of January, 1970, by PAUL D. MEADOWS, Vice President for Reserve Oil
and Gas Company, on behalf of said corporation.

My Commission Expires:
June 1, 1971

Margaret Lotz
Notary Public in and for
Dallas County, Texas

WORKING INTEREST OWNERS

Date _____

Date _____

Date _____

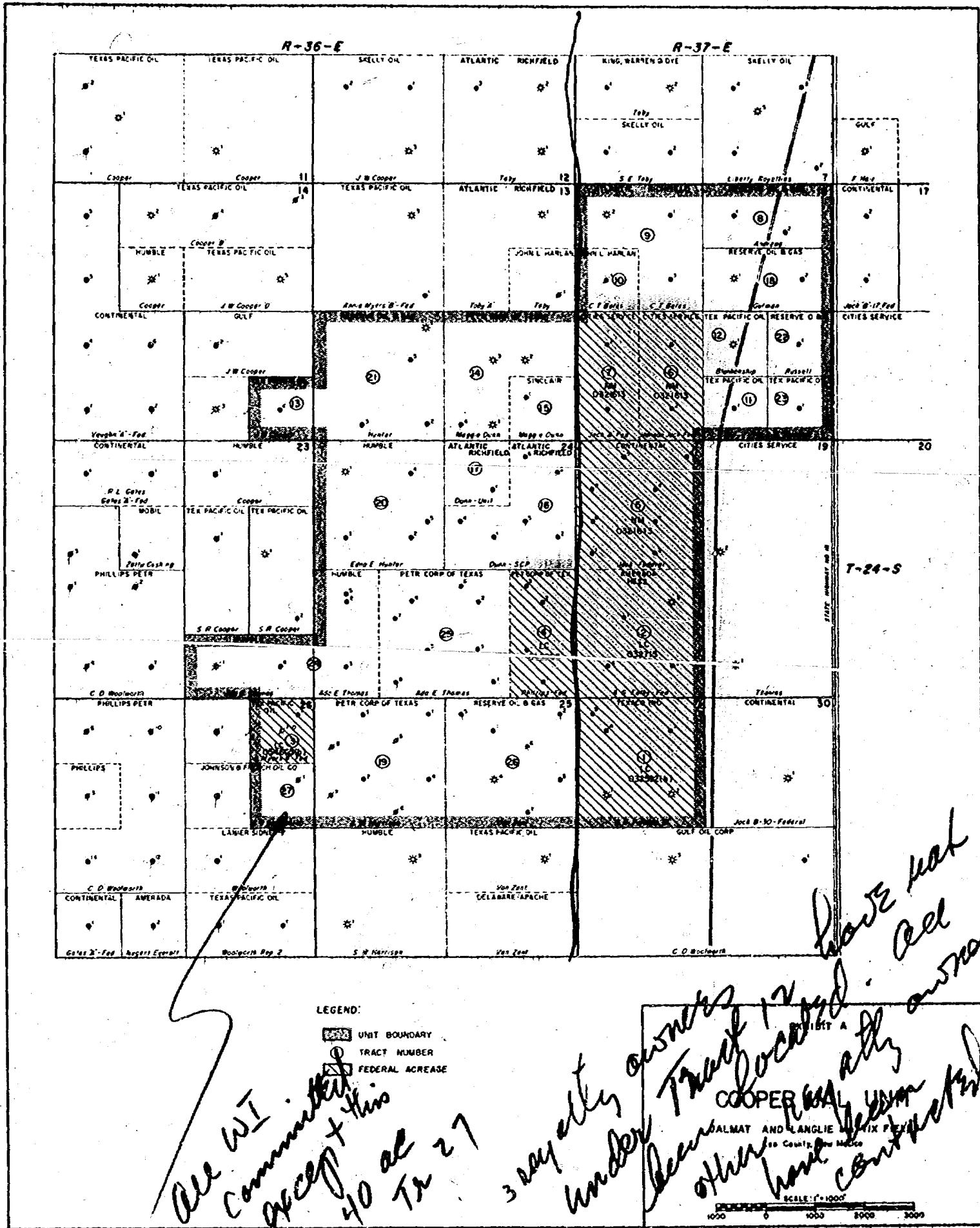
Date _____

Date _____

Date _____

Date _____

Date _____



All WI committed except this 40 ac Tr 27

3 royalty owners under lease located. COOPER, PALMAT AND LANGLEY, and others have contracted. Have not all owners

EXHIBIT "B" TO UNIT AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO
SCHEDULE OF OWNERSHIP

TRACT NO.	DESCRIPTION OF LAND	NO. ACRES	SERIAL NO. AND LEASE NAME	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE
1	T24S, R37E Section 30: Lots 1 and 2 and E/2 NW/4	156.16	LC-032592(b) H. B. P.	USA - All 12.5% - 33 1/3% (Schedule D)	Texaco Inc.	None	Texaco Inc.
2	T24S, R37E Section 19: Lots 3 and 4 and E/2 SW/4	156.18	LC-032715 H. B. P.	USA - All 12.5%	Amerada Petroleum Corporation	Supplement Note No. 1	Amerada Petroleum Corporation
3	T24S, R36E Section 26: NE/4 NE/4	40.00	LC 054665(b) H. B. P.	USA - All 12.5%	Joseph E. Seagram & Son, Inc. - 7/12 Allied Chemical Co. - 5/12	Supplement Note No. 2	Texas Pacific Oil Company, Inc. (Down to 4,000 Feet)
4	T24S, R36E Section 24: E/2 SE/4	80.00	LC-063955 H. B. P.	USA - All 12.5% - 25% (Schedule B)	Phillips Petroleum Corp.	Supplement Note No. 3	Petroleum Corporation of Texas (Down to 3,750 Feet) Reserve Oil and Gas Company (Down to 3,750 Feet)
5	T24S, R37E Section 19: Lots 1 and 2 and E/2 NW/4	156.22	NM-0321613 H. B. P.	USA - All 12.5% - 33 1/3% (Schedule D)	Estate of Abner M. Jack; Annie May Kavanaugh; Estate of Florence Jack Mayo; W. M. Beauchamp, Guardian for Wm. Howard Jack	Supplement Note No. 4	Continental Oil Company (Down to Base of Queen Formation) T. J. Sivley (Down to Base of Queen Formation) Dorothy B. Lind (Down to Base of Queen Formation)
6	T24S, R37E Section 18: E/2 SW/4	80.00	NM-0321613 H. B. P.	USA - All 12.5% - 33 1/3% (Schedule D)	Estate of Abner M. Jack; Annie May Kavanaugh; Estate of Guy Jack, Jr.; Estate of Florence Jack Mayo; W. M. Beauchamp, Guardian for Wm. Howard Jack	Supplement Note No. 5	Cities Service Oil Company (Surface to 3,750 Feet) Hanson Oil Company (Surface to 3,750 Feet)
7	T24S, R37E Section 18: Lots 3 and 4	76.23	NM-0321613 H. B. P.	USA - All 12.5% - 33 1/3% (Schedule D)	Estate of Abner M. Jack; Annie May Kavanaugh; Estate of Florence Jack Mayo; W. M. Beauchamp, Guardian for Wm. Howard Jack	Supplement Note No. 6	Cities Service Oil Company (Down to 3,750 Feet)
8	T24S, R37E Section 18: N/2 NE/4	80.00	Andrews H. B. P.	Supplement Note No. 7	Reserve Oil and Gas Company Atlantic Richfield Company	Supplement Note No. 7	Reserve Oil and Gas Company Atlantic Richfield Company

EXHIBIT "B" TO UNIT AGREEMENT

**COOPER JAL UNIT
LEA COUNTY, NEW MEXICO**

SCHEDULE OF OWNERSHIP

NO. CRES	SERIAL NO. AND LEASE NAME	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	
66.16	LC-032592(b) H.B.P.	USA - All 12.5% - 33 1/3% (Schedule D)	Texaco Inc.	None	Texaco Inc.	100.000%
66.18	LC-032715 H.B.P.	USA - All 12.5%	Amerada Petroleum Corporation	Supplement Note No. 1	Amerada Petroleum Corporation	100.000%
10.00	LC 054665(b) H.B.P.	USA - All 12.5%	Joseph E. Seagram & Son, Inc. - 7/12 Allied Chemical Co. - 5/12	Supplement Note No. 2	Texas Pacific Oil Company, Inc. (Down to 4,000 Feet)	100.000%
80.00	LC-063965 H.B.P.	USA - All 12.5% - 25% (Schedule B)	Phillips Petroleum Corp.	Supplement Note No. 3	Petroleum Corporation of Texas (Down to 3,750 Feet) Reserve Oil and Gas Company (Down to 3,750 Feet)	50.000% 50.000%
66.22	NM-0321613 H.B.P.	USA - All 12.5% - 33 1/3% (Schedule D)	Estate of Abner M. Jack; Annie May Kavanaugh; Estate of Florence Jack Mayo; W. M. Beauchamp, Guardian for Wm. Howard Jack	Supplement Note No. 4	Continental Oil Company (Down to Base of Queen Formation) T. J. Sivley (Down to Base of Queen Formation) Dorothy B. Lind (Down to Base of Queen Formation)	50.000% 25.000% 25.000%
80.00	NM-0321613 H.B.P.	USA - All 12.5% - 33 1/3% (Schedule D)	Estate of Abner M. Jack; Annie May Kavanaugh; Estate of Guy Jack, Jr.; Estate of Florence Jack Mayo; W. M. Beauchamp, Guardian for Wm. Howard Jack	Supplement Note No. 5	Cities Service Oil Company (Surface to 3,750 Feet) Hanson Oil Company (Surface to 3,750 Feet)	83.333% 16.667%
76.23	NM-0321613 H.B.P.	USA - All 12.5% - 33 1/3% (Schedule D)	Estate of Abner M. Jack; Annie May Kavanaugh; Estate of Florence Jack Mayo; W. M. Beauchamp, Guardian for Wm. Howard Jack	Supplement Note No. 6	Cities Service Oil Company (Down to 3,750 Feet)	100.000%
80.00	Andrews H.B.P.	Supplement Note No. 7	Reserve Oil and Gas Company Atlantic Richfield Company	Supplement Note No. 7	Reserve Oil and Gas Company Atlantic Richfield Company	50.000% 50.000%

EXHIBIT "B" TO UNIT AGREEMENT - Page 2.

<u>TRACT NO.</u>	<u>DESCRIPTION OF LAND</u>	<u>NO. ACRES</u>	<u>SERIAL NO. AND LEASE NAME</u>	<u>BASIC ROYALTY OWNER AND PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY OWNER AND PERCENTAGE</u>	<u>WORKING INTEREST OWNER AND PERCENTAGE</u>
9	T24S, R37E Section 18: NW/4 NW/4 (Lot 1) and E/2 NW/4	118.10	Bates, C. T. H.B.P.	Supplement Note No. 8	Atlantic Richfield Company	None	Atlantic Richfield Company
10	T24S, R37E Section 18: SW/4 NW/4 (Lot 2)	38.11	Bates, C. T. H.B.P.	Supplement Note No. 9	John L. Harlan	Supplement Note No. 9	John L. Harlan (Oil Rights Only Down to 3,855 Feet) Atlantic Richfield Company (Gas Rights Down to 3,855 Feet)
11	T24S, R37E Section 18: SW/4 SE/4	40.00	Bates, C. T. H.B.P.	Supplement Note No. 10	Texas Pacific Oil Co., Inc.	Supplement Note No. 10	Texas Pacific Oil Co., Inc.
12	T24S, R37E Section 18: NW/4 SE/4	40.00	Blankenship H.B.P.	Supplement Note No. 11	Texas Pacific Oil Co., Inc.	Supplement Note No. 11	Texas Pacific Oil Co., Inc.
13	T24S, R36E Section 14: SE/4 SE/4	40.00	Cooper, J. W. H.B.P.	Supplement Note No. 12	Texas Pacific Oil Co., Inc.	None	Texas Pacific Oil Co., Inc.
14	T24S, R36E Section 13: N/2 SE/4 and SW/4 SE/4	120.00	Dunn, Maggie H.B.P.	Supplement Note No. 13	Petroleum Corp. of Texas Atlantic Richfield Company	Supplement Note No. 13	Petroleum Corporation of Texas (Down to 4,000 Feet) Atlantic Richfield Company (Down to 4,000 Feet)
15	T24S, R36E Section 13: SE/4 SE/4	40.00	Dunn, Maggie H.B.P.	Supplement Note No. 14	Atlantic Richfield Company	None	Atlantic Richfield Company
16	T24S, R36E Section 24: E/2 NE/4 and SW/4 NE/4	120.00	Dunn, Maggie H.B.P.	Supplement Note No. 15	Atlantic Richfield Company Reserve Oil and Gas Company Petroleum Corporation of Texas	Supplement Note No. 15	Atlantic Richfield Company (Down to 4,000 Feet) Reserve Oil and Gas Company (Down to 4,000 Feet) Petroleum Corporation of Texas (Down to 4,000 Feet)
17	T24S, R36E Section 24: NW/4 NE/4	40.00	Dunn Unit H.B.P.	Supplement Note No. 16	Atlantic Richfield Company	None	Atlantic Richfield Company Richardson, Sarah B., Individually and as Trustee U/W/O Jack Richardson

EXHIBIT "B" TO UNIT AGREEMENT - Page 2.

<u>NO.</u> <u>RES</u>	<u>SERIAL NO.</u> <u>AND</u> <u>LEASE NAME</u>	<u>BASIC ROYALTY</u> <u>OWNER AND</u> <u>PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING</u> <u>ROYALTY</u> <u>OWNER AND</u> <u>PERCENTAGE</u>	<u>WORKING INTEREST OWNER</u> <u>AND PERCENTAGE</u>	
B.10	Bates, C. T. H.B.P.	Supplement Note No. 8	Atlantic Richfield Company	None	Atlantic Richfield Company	100.000%
B.11	Bates, C. T. H.B.P.	Supplement Note No. 9	John L. Harlan	Supplement Note No. 9	John L. Harlan (Oil Rights Only Down to 3,855 Feet) Atlantic Richfield Company (Gas Rights Down to 3,855 Feet)	100.000%
.00	Bates, C. T. H.B.P.	Supplement Note No. 10	Texas Pacific Oil Co., Inc.	Supplement Note No. 10	Texas Pacific Oil Co., Inc.	100.000%
.00	Blankenship H.B.P.	Supplement Note No. 11	Texas Pacific Oil Co., Inc.	Supplement Note No. 11	Texas Pacific Oil Co., Inc.	100.000%
.00	Cooper, J. W. H.B.P.	Supplement Note No. 12	Texas Pacific Oil Co., Inc.	None	Texas Pacific Oil Co., Inc.	100.000%
.00	Dunn, Maggie H.B.P.	Supplement Note No. 13	Petroleum Corp. of Texas Atlantic Richfield Company	Supplement Note No. 13	Petroleum Corporation of Texas (Down to 4,000 Feet) Atlantic Richfield Company (Down to 4,000 Feet)	50.000% 50.000%
.00	Dunn, Maggie H.B.P.	Supplement Note No. 14	Atlantic Richfield Company	None	Atlantic Richfield Company	100.000%
.00	Dunn, Maggie H.B.P.	Supplement Note No. 15	Atlantic Richfield Company Reserve Oil and Gas Company Petroleum Corporation of Texas	Supplement Note No. 15	Atlantic Richfield Company (Down to 4,000 Feet) Reserve Oil and Gas Company (Down to 4,000 Feet) Petroleum Corporation of Texas (Down to 4,000 Feet)	50.000% 37.500% 12.500%
.00	Dunn Unit H.B.P.	Supplement Note No. 16	Atlantic Richfield Company	None	Atlantic Richfield Company Richardson, Sarah B., Individually and as Trustee U/W/O Jack Richardson	50.000% 50.000%

EXHIBIT "B" TO UNIT AGREEMENT - Page 3.

<u>TRACT NO.</u>	<u>DESCRIPTION OF LAND</u>	<u>NO. ACRES</u>	<u>SERIAL NO. AND LEASE NAME</u>	<u>BASIC ROYALTY OWNER AND PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY OWNER AND PERCENTAGE</u>	<u>WORKING INTEREST OWNER AND PERCENTAGE</u>
18	T24S, R37E Section 18: S/2 NE/4	80.00	Gutman, Charles H. B. P.	Supplement Note No. 17	Reserve Oil and Gas Company Atlantic Richfield Company	Supplement Note No. 17	Reserve Oil and Gas Company (Down to 3,800 Feet) Atlantic Richfield Company (Down to 3,800 Feet)
19	T24S, R36E Section 25: NW/4	160.00	Harrison, Sally W. H. B. P.	Supplement Note No. 18	Petroleum Corporation of Texas Reserve Oil and Gas Company	Supplement Note No. 18	Petroleum Corporation of Texas Reserve Oil and Gas Company
20	T24S, R36E Section 24: NW/4	160.00	Hunter, E. E. H. B. P.	Supplement Note No. 19	Humble Oil and Refining Co.	None	Humble Oil and Refining Co.
21	T24S, R36E Section 13: SW/4	160.00	Hunter, Edna E. H. B. P.	Supplement Note No. 20	Reserve Oil and Gas Company Tenneco Oil Company Margaret Strain Mallard Clara Margaret Strain Charles Hunter Strain	Supplement Note No. 20	Reserve Oil and Gas Company (Down to 3,750 Feet) Tenneco Oil Company (Down to 3,750 Feet) Margaret Strain Mallard (Down to 3,750 Feet) Clara Margaret Strain (Down to 3,750 Feet) Charles Hunter Strain (Down to 3,750 Feet)
22	T24S, R37E Section 18: NE/4 SE/4	40.00	Russell, P. G. H. B. P.	Theodore Low Company, Inc. - All	Reserve Oil and Gas Company Texas Pacific Oil Co., Inc.	Supplement Note No. 21	Reserve Oil and Gas Company Texas Pacific Oil Co., Inc.
23	T24S, R37E Section 18: SE/4 SE/4	40.00	Russell H. B. P.	Theodore Low Company, Inc. - All	Texas Pacific Oil Co., Inc.	Supplement Note No. 22	Texas Pacific Oil Co., Inc.
24	T24S, R36E Section 23: S/2 SE/4 Section 24: W/2 SW/4	160.00	Thomas, A. E. H. B. P.	Supplement Note No. 23	Humble Oil and Refining Co.	None	Humble Oil and Refining Co.
25	T24S, R36E Section 24: E/2 SW/4 and W/2 SE/4	160.00	Thomas, Ada H. B. P.	Supplement Note No. 24	Petroleum Corporation of Texas Reserve Oil and Gas Company	Supplement Note No. 24	Petroleum Corporation of Texas (Down to 3,750 Feet) Reserve Oil and Gas Company (Down to 3,750 Feet)

EXHIBIT "B" TO UNIT AGREEMENT - Page 3.

<u>NO. ACRES</u>	<u>SERIAL NO. AND LEASE NAME</u>	<u>BASIC ROYALTY OWNER AND PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY OWNER AND PERCENTAGE</u>	<u>WORKING INTEREST OWNER AND PERCENTAGE</u>	
80.00	Gutman, Charles H. B. P.	Supplement Note No. 17	Reserve Oil and Gas Company Atlantic Richfield Company	Supplement Note No. 17	Reserve Oil and Gas Company (Down to 3,800 Feet) Atlantic Richfield Company (Down to 3,800 Feet)	50.000% 50.000%
160.00	Harrison, Sally W. H. B. P.	Supplement Note No. 18	Petroleum Corporation of Texas Reserve Oil and Gas Company	Supplement Note No. 18	Petroleum Corporation of Texas Reserve Oil and Gas Company	50.000% 50.000%
160.00	Hunter, E. E. H. B. P.	Supplement Note No. 19	Humble Oil and Refining Co.	None	Humble Oil and Refining Co.	100.000%
160.00	Hunter, Edna E. H. B. P.	Supplement Note No. 20	Reserve Oil and Gas Company Tenneco Oil Company Margaret Strain Mallard Clara Margaret Strain Charles Hunter Strain	Supplement Note No. 20	Reserve Oil and Gas Company (Down to 3,750 Feet) Tenneco Oil Company (Down to 3,750 Feet) Margaret Strain Mallard (Down to 3,750 Feet) Clara Margaret Strain (Down to 3,750 Feet) Charles Hunter Strain (Down to 3,750 Feet)	50.000% 25.000% 6.250% 12.500% 6.250%
40.00	Russell, P. G. H. B. P.	Theodore Low Company, Inc. - All	Reserve Oil and Gas Company Texas Pacific Oil Co., Inc.	Supplement Note No. 21	Reserve Oil and Gas Company Texas Pacific Oil Co., Inc.	50.000% 50.000%
40.00	Russell H. B. P.	Theodore Low Company, Inc. - All	Texas Pacific Oil Co., Inc.	Supplement Note No. 22	Texas Pacific Oil Co., Inc.	100.000%
60.00	Thomas, A. E. H. B. P.	Supplement Note No. 23	Humble Oil and Refining Co.	None	Humble Oil and Refining Co.	100.000%
60.00	Thomas, Ada H. B. P.	Supplement Note No. 24	Petroleum Corporation of Texas Reserve Oil and Gas Company	Supplement Note No. 24	Petroleum Corporation of Texas (Down to 3,750 Feet) Reserve Oil and Gas Company (Down to 3,750 Feet)	50.000% 50.000%

EXHIBIT "B" TO UNIT AGREEMENT - Page 4.

<u>TRACT NO.</u>	<u>DESCRIPTION OF LAND</u>	<u>NO. ACRES</u>	<u>SERIAL NO. AND LEASE NAME</u>	<u>BASIC ROYALTY OWNER AND PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY OWNER AND PERCENTAGE</u>	<u>WORKING INTEREST OWNER AND PERCENTAGE</u>
26	T24S, R36E Section 25: NE/4	160.00	Van Zandt H.B.P.	Supplement Note No. 25	Reserve Oil and Gas Company Texas Pacific Oil Company, Inc. Adele Irvine Sowell George Bauerdorf Estate	Supplement Note No. 25	Reserve Oil and Gas Company (Down to 3,750 Feet) Texas Pacific Oil Company, Inc. Adele Irvine Sowell George Bauerdorf Estate
27	T24S, R36E Section 26: SE/4 NE/4	40.00	Woolworth, C.D. H.B.P.	Supplement Note No. 26	L. A. Johnson Johnny French	None	Johnny French Tillie French L. A. Johnson

SUMMARY OF COOPER JAL UNIT ACREAGE

	<u>NUMBER OF ACRES</u>	<u>PERCENT OF UNIT</u>
Federal Lands	744.79	28.86%
State Lands	None	—
Fee Lands	<u>1,836.21</u>	<u>71.14%</u>
TOTAL	2,581.00	100.00%

EXHIBIT "B" TO UNIT AGREEMENT - Page 4.

<u>NO. ACRES</u>	<u>SERIAL NO. AND LEASE NAME</u>	<u>BASIC ROYALTY OWNER AND PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY OWNER AND PERCENTAGE</u>	<u>WORKING INTEREST OWNER AND PERCENTAGE</u>
160.00	Van Zandt H. B. P.	Supplement Note No. 25	Reserve Oil and Gas Company Texas Pacific Oil Company, Inc. Adele Irvine Sowell George Bauerdorf Estate	Supplement Note No. 25	Reserve Oil and Gas Company (Down to 3,750 Feet) 50.000% Texas Pacific Oil Company, Inc. 32.813% Adele Irvine Sowell 7.187% George Bauerdorf Estate 10.000%
40.00	Woolworth, C. D. H. B. P.	Supplement Note No. 26	L. A. Johnson Johnny French	None	Johnny French 25.000% Tillie French 25.000% L. A. Johnson 50.000%

SUMMARY OF COOPER JAL UNIT ACREAGE

	<u>NUMBER OF ACRES</u>	<u>PERCENT OF UNIT</u>
Federal Lands	744.79	28.86%
State Lands	None	—
Fee Lands	<u>1,836.21</u>	<u>71.14%</u>
TOTAL	2,581.00	100.00%

SUPPLEMENT TO EXHIBIT "B" TO UNIT AGREEMENT
COOPER JAL UNIT
LEA COUNTY, NEW MEXICO

NOTE NO. 1 - UNDER TRACT NO. 2

OVERRIDING ROYALTY OWNER

Atlantic Richfield Company	.37500%
Bonnie R. Etz	.50000%
George Etz	.50000%
Fluor Corporation	.50000%

NOTE NO. 2 - UNDER TRACT NO. 3

OVERRIDING ROYALTY OWNER

None

\$9,314,423.00 Production from this and other leases payable to Prudential Insurance Company of America payable out of 65% of Texas Pacific's Net Interest.

\$1,125,000.00 Production Payment out of this and other leases payable to Howard Olsen (1/2) and The Estate of R. Olsen, Deceased (1/2) payable out of 6.25% of Texas Pacific's Net Interest.

\$5,875,000.00 Production Payment out of this and other leases payable to Howard Olsen (1/2) and The Estate of R. Olsen, Deceased (1/2) payable out of 12.5% of Texas Pacific's Net Interest after the \$1,125,000.00 Production Payment payout.

NOTE NO. 3 - UNDER TRACT NO. 4

OVERRIDING ROYALTY OWNER

Phillips Petroleum Company	*12.50000%
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* When production during any calendar month averages over 15 barrels per well per day.

* 5.00000%

* When production during any calendar month averages less than 15 barrels per well per day.

\$245,000.00 Production Payment plus 6-1/2% interest from this and other leases payable to A.M.C. Corporation out of 65% of 75% of Petco's Net Interest.

\$690,000.00 Production Payment plus 5% interest from this and other leases payable to Permian Charitable Foundation of Midland, Texas, Inc. out of 25% of Petco's Net Interest.

\$7,100,000.00 Production Payment plus 5-5/8% interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.

\$4,000,000.00 Production Payment plus 5-7/8% interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.

NOTE NO. 4 - UNDER TRACT NO. 5

OVERRIDING ROYALTY OWNER

Atlantic Richfield Company	.62500%
Estate of W. H. Jack	.56250%
Catholic Church Extension Society	.50000%
J. H. Daws	.06250%
Mack Easley	.06250%
Howard Bradley Jack	.03125%
Lucille R. Jack	.56250%
Annie May Kavanaugh	.59375%
Mrs. Charles S. Mitchell	.06250%
Pan American Petroleum Corporation	.62500%
John Quinn	.06250%
Standard Oil Company of Texas	.62500%
Continental Oil Company	.62500%

NOTE NO. 5 - UNDER TRACT NO. 6

OVERRIDING ROYALTY OWNER

Catholic Church Extension Society	.50000%
Chevron Oil Company	.62500%
J. H. Daws	.06250%
Mack Easley	.06250%
Howard Bradley Jack	.03125%
Lucille R. Jack	.56250%
Estate of William H. Jack	.56250%
Annie May Kavanaugh	.59375%
Mrs. Charles S. Mitchell	.06250%
John Quinn	.06250%
Atlantic Richfield Company	.62500%
Continental Oil Company	.62500%
Pan American Petroleum Corporation	.62500%

NOTE NO. 6 - UNDER TRACT NO. 7

OVERRIDING ROYALTY OWNER

Catholic Church Extension Society	.50000%
Chevron Oil Company	.62500%
J. H. Daws	.06250%
Mack Easley	.06250%
Howard Bradley Jack	.03125%
Lucille R. Jack	.56250%
Estate of William H. Jack	.56250%
Annie May Kavanaugh	.59375%
Mrs. Charles S. Mitchell	.06250%
John Quinn	.06250%
Atlantic Richfield Company	.62500%
Continental Oil Company	.62500%
Pan American Petroleum Corporation	.62500%

NOTE NO. 7 - UNDER TRACT NO. 8

BASIC ROYALTY OWNER

Albuquerque National Bank, Testamentary Trustee of F. A. Andrews, Deceased	11.57%
Selma E. Andrews Agency	13.43%
Harry Arledge	1.04%
S. M. Aronson	1.25%
Jessie B. Crump	6.25%
Joe and Jessie Crump Fund	6.25%
Alfred E. Gutman	4.93%
Daniel L. Gutman	4.93%
Mrs. Dorothy Gutman Trustee	2.47%
Dorothy Gutman	4.93%
Daniel Gutman, Trustee of Estate of Max Gutman	14.79%
Betty Gutman Guttag	7.40%
Hendrick Memorial Hospital	12.50%
Mrs. Julia Levine Daniels	2.08%
Scope Industries	.62%
Atlantic Richfield Company	.62%
Edith G. Socolow	4.94%

OVERRIDING ROYALTY OWNER

Scope Industries	5.07810%
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\$7,100,000.00 Production Payment plus 5-5/8% interest from this
and other leases payable to Continental Illinois National Bank
and Trust Company of Chicago out of Reserve's Net Interest.

\$4,000,000.00 Production Payment plus 5-7/8% interest payable to
Continental Illinois National Bank and Trust Company of
Chicago out of Reserve's Net Interest.

NOTE NO. 8 - UNDER TRACT NO. 9

BASIC ROYALTY OWNER

Charles T. Bates, Jr.	3.61%
James Ray Bates	3.61%
Kenneth C. Bates	3.61%
Lucille Chism Bates	3.13%
Theodocia G. Bates	12.64%
Warren J. Bates	3.61%
Ether Chism	20.83%
Catherine L. Dumraese	27.08%
Wilma Chism Lain	3.13%
Norma Chism McCarthy	3.13%
Mary Louise Nommensen	3.12%
Oil Finders, Inc.	3.13%
Atlantic Richfield Company	9.37%

NOTE NO. 9 - UNDER TRACT NO. 10

BASIC ROYALTY OWNER

Kenneth C. Bates	3.61%
Docia Bates	3.61%
Charles T. Bates, Jr.	3.61%
James Ray Bates	3.61%
Warren J. Bates	3.61%
Theodocia C. Bates	9.03%
Oil Finders, Inc.	3.13%
Atlantic Richfield Company	9.38%
F. W. Dumraese	27.08%
Ether Chism	20.83%
Lucille Chism Bates	3.13%
Wilma Chism Lain	3.13%
Norma Chism McCarthy	3.12%
Mary Louise Nommensen	3.12%

OVERRIDING ROYALTY OWNER

Atlantic Richfield Company	*10.937500%
* When wells are capable of making 100% of allowable.	
	* 8.203125%
* When wells are capable of making 75% - 100% of allowable.	
	* 5.46875%
* When wells are making less than 75% of allowable.	
Oil Well Remedial Service	5.46875%
Florence M. Lathrop	5.46875%

NOTE NO. 10 - UNDER TRACT NO. 11

BASIC ROYALTY OWNER

Charles T. Bates, Jr.	4.45%
Docia Bates	15.56%
James Ray Bates	4.45%
Kenneth C. Bates	4.45%
Lucille Chism Bates	3.12%
Warren J. Bates	4.45%
Ether Chism	20.83%
Catherine L. Dumraese	33.33%
Wilma Chism Lain	3.12%
Norma Chism McCarthy	3.12%
Mary Louise Nommensen	3.12%

OVERRIDING ROYALTY OWNER

Docia Bates	2.73438%
Catherine L. Dumraese	4.16667%

NOTE NO. 11 - UNDER TRACT NO. 12

BASIC ROYALTY OWNER (Based On Gas Ownership)

The Colorado Corporation	.01%
Joseph C. Blake	.01%
Daisy D. Blankenship	15.00%
Georgia Lee Clarke	1.56%
C. S. Daley	.02%
Myrtle L. Davis	.04%
L. M. Decker and Yvonne Baird Decker	81.25%
Margaret R. Ellison	.01%
Roy F. Faskin	.02%
Elizabeth Rittenhouse Lamb	.01%
Harry Levy	.02%
Paul Lyon and Martha Lyon	1.56%
Beverly B. Nelson	.02%
Joseph Nelson	.04%
Veva Neva K. Nelson	.08%
Earle M. Simon	.02%
Elmer H. Wahl	.31%
A. W. Wuesterberg	.02%

OVERRIDING ROYALTY OWNER

The Colorado Corporation	.00107%
Joseph C. Blake	.00107%
Daisy D. Blankenship	1.64063%
Georgia Lee Clarke	.17090%
C. S. Daley	.00214%
Myrtle L. Davis	.00427%
L. M. Decker and Yvonne Baird Decker	8.88672%
Margaret R. Ellison	.00107%
Roy F. Faskin	.00214%
Elizabeth Rittenhouse Lamb	.00107%
Harry Levy	.00213%
Paul Lyon and Martha Lyon	.17090%
Beverly B. Nelson	.00214%
Joseph Nelson	.00427%
Veva Neva K. Nelson	.00854%
Earle M. Simon	.00213%
Elmer H. Wahl	.03418%
A. W. Wuesterberg	.00213%

NOTE NO. 12 - UNDER TRACT NO. 13

BASIC ROYALTY OWNER

Atlantic Richfield Company	18.37%
Jessie Cooper	4.08%
General Crude Oil Company	9.18%
Kenneth N. Headley	.77%
Frances Smyrl Jennings	.76%
John H. Hendrix	48.98%
Mobil Oil Corporation	16.33%
Southern Petroleum Exploration, Inc.	1.53%

NOTE NO. 13 - UNDER TRACT NO. 14

BASIC ROYALTY OWNER

Atlantic Richfield Company	40.00%
Billy Dunn	6.07%
Haskell J. Dunn	4.28%
Ralph S. Dunn	4.28%
Fluor Corporation	20.00%
Annie Ford	6.07%
Ima Hays	1.67%
G. M. Jenkins	1.67%
North Central Oil Corp.	7.50%
Roger B. Owings	2.50%
Sharon Dunn Riley	.36%
Mona Dunn Shofner, Aux. Adm. of Estate of Walker A. Dunn, Deceased	3.57%
Annabel Winningham	1.67%
Suspense (Walker A. Dunn, Jr.)	.36%

OVERRIDING ROYALTY OWNER

Aikman Oil and Gas Company	2.73420%
G. W. Hutcheson	2.73420%

\$245,000.00 Production Payment plus 6-1/2% interest from this and other leases payable to A. M. C. Corporation out of 65% of 75% of PETCO's Net Interest.

\$690,000.00 Production Payment plus 5% interest from this and other leases payable to Permian Charitable Foundation of Midland, Texas, Inc. out of 25% of PETCO's Net Interest.

NOTE NO. 14 - UNDER TRACT NO. 15

BASIC ROYALTY OWNER

Atlantic Richfield Company	40.00%
Billy Dunn	6.07%
Haskell J. Dunn	4.28%
Ralph S. Dunn	4.28%
Fluor Corporation	20.00%
Annie Ford	6.07%
Ima Hays	1.67%
G. M. Jenkins	1.67%
North Central Oil Corp.	7.50%
Roger B. Owings	2.50%
Sharon Dunn Riley	.36%
Mona Dunn Shofner, Aux. Adm. of Estate of Walker A. Dunn, Deceased	3.57%
Annabel Winningham	1.67%
Suspense (Walker A. Dunn, Jr.)	.36%

NOTE NO. 15 - UNDER TRACT NO. 16

BASIC ROYALTY OWNER

Atlantic Richfield Company	40.00%
Billy Dunn	6.07%
Haskell J. Dunn	4.28%
Ralph S. Dunn	4.28%
Fluor Corporation	20.00%
Annie Ford	6.07%
Ima Hays	1.67%
G. M. Jenkins	1.67%
North Central Oil Corp.	7.50%
Roger B. Owings	2.50%
Mona Dunn Shofner, Aux. Adm. of Estate of Walker A. Dunn, Deceased	3.57%
Annabel and R. R. Winningham	1.67%
Suspense (Sharon Dunn Riley and Walker A. Dunn, Jr.)	.72%

OVERRIDING ROYALTY OWNER

Scope Industries	3.95510%
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NOTE NO. 16 - UNDER TRACT NO. 17

BASIC ROYALTY OWNER

Atlantic Richfield Company	22.22%
Billy Dunn	14.17%
Haskell J. Dunn	10.00%
Ralph S. Dunn	10.00%
Fluor Corporation	11.11%
Annie Ford	14.17%
Ima Hays	.93%
G. M. Jenkins	.93%
North Central Oil Corp.	4.16%
Roger B. Owings	1.39%
Sharon Dunn Riley	.83%
Mona Dunn Shofner, Aux. Adm. of Estate of Walker A. Dunn, Deceased	8.33%
Annabel Winningham	.93%
Suspense (Walker A. Dunn, Jr.)	.83%

NOTE NO. 17 - UNDER TRACT NO. 18

BASIC ROYALTY OWNER

Harry Arledge	.78%
S. M. Aronson	2.50%
Fluor Corporation	12.50%
Alfred E. Gutman	8.91%
Daniel L. Gutman	8.91%
Mrs. Dorothy Gutman, Trustee	4.45%
Dorothy Gutman	8.91%
Daniel Gutman, Trustee of Estate of Max Gutman	26.72%
Betty Guttman Gutttag	13.36%

NOTE NO. 17 - UNDER TRACT NO. 18 (Cont'd.)

BASIC ROYALTY OWNER (Cont'd.)

Mrs. Tina Levine, Deceased	1.56%
Scope Industries	1.25%
Atlantic Richfield Company	1.25%
Edith G. Socolow	8.90%

OVERRIDING ROYALTY OWNER

Scope Industries	2.50000%
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\$7,100,000.00 Production Payment plus 5-5/8% interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.

\$4,000,000.00 Production Payment plus 5-7/8% interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.

NOTE NO. 18 - UNDER TRACT NO. 19

BASIC ROYALTY OWNER

Charles F. Bedford	.06%
Edwin M. Bedford	.06%
Henry D. Bedford	.06%
Rachel Bedford Bowen	.06%
Mrs. Walter M. Burress	1.56%
Buttram Texhoma Co.	8.61%
Gonzales Royalties Inc.	2.34%
George V. Holmes, Trustee	3.24%
Lasca Inc.	2.00%
Lexington Oil Co.	2.23%
J. M. Richardson Lyeth, Jr. and Monro Longyear Lyeth, Joint Tenants	2.97%
James R. Lytle, Executor Under Will of Mary Duke Pearlbrook	.79%
Ida D. Miller	.09%
Helen D. Pearlbrook	.88%
Petroleum Corporation of Texas	1.67%
John J. Reynolds	10.50%
Onez Norman Rooney	2.97%
Elaine Newby Shepherd, Ind. & as Attorney	.58%
Southern Minerals Corporation	3.33%
Sparks Healey Company	1.25%
E. M. Sweeney	1.56%
Ellen Anne Williams	.06%
The Atlantic Richfield Company	28.13%
Cities Service Oil Company	25.00%

OVERRIDING ROYALTY OWNER

Humble Oil and Refining Company	12.50000% (On Oil)
Humble Oil and Refining Company	25.00000% (On Gas and Casinghead Gas)
Scope Industries	2.50000%

NOTE NO. 18 - UNDER TRACT NO. 19 (Cont'd.)

OVERRIDING ROYALTY OWNER (Cont'd.)

\$690,000.00 Production Payment plus 5% interest from this and other leases payable to Permian Charitable Foundation of Midland, Texas, Inc. out of 25% of PETCO's Net Interest.
 \$7,100,000.00 Production Payment plus 5 5/8% interest from this and other leases payable to Continental Illinois National Bank and Trust Company out of Reserve's Net Interest.
 \$400,000.00 Production Payment plus 3 7/8% interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.

NOTE NO. 19 - UNDER TRACT NO. 20

BASIC ROYALTY OWNER

Cities Service Oil Company	20.83%
Mary J. Dotson	.78%
Foster Petroleum Corporation	4.17%
General Crude Oil Company	18.75%
Mobil Oil Corporation	12.50%
Southern California Petroleum Corp.	18.75%
Adele Irvine Sowell, Individually and as Independent Executrix of the Estate of R. H. Sowell, Deceased	6.25%
June D. Speight	2.35%
The First National Bank for Deposit to Account of Howard M. Wilson	1.56%
M. Elizabeth Wilson	1.56%
Atlantic Richfield Company	12.50%

NOTE NO. 20 - UNDER TRACT NO. 21

BASIC ROYALTY OWNER

Atlantic Richfield Company	12.50%
Cities Service Oil Company	20.83%
Mary J. Dotson	.78%
Foster Petroleum Corporation	4.17%
General Crude Oil Company	18.75%
Mobil Oil Corporation	12.50%
Scope Industries	18.75%
Mrs. Adele Irvine Sowell	6.25%
June D. Speight	2.35%
Howard M. Wilson	1.56%
M. Elizabeth Wilson	1.56%

OVERRIDING ROYALTY OWNER

Humble Oil and Refining Company	6.25000% On Oil
Humble Oil and Refining Company	25.00000% On Gas
Scope Industries	5.07810%

\$7,100,000.00 Production Payment plus 5 5/8% Interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago payable out of Reserve's Net Interest.

NOTE NO. 20 - UNDER TRACT NO. 21 (Cont'd.)

OVERRIDING ROYALTY OWNER (Cont'd.)

\$4,000,000.00 Production Payment plus 5-7/8% Interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago payable out of Reserve's Net Interest.

NOTE NO. 21 - UNDER TRACT NO. 22

OVERRIDING ROYALTY OWNER

Scope Industries . 5.46870%

\$7,100,000.00 Production Payment plus 5-5/8% Interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.

\$4,000,000.00 Production Payment plus 5-7/8% Interest from this and other leases payable to Cortinental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.

NOTE NO. 22 - UNDER TRACT NO. 23

OVERRIDING ROYALTY OWNER

Atlantic Richfield Company 2.73438%

NOTE NO. 23 - UNDER TRACT NO. 24

BASIC ROYALTY OWNER

Fern Cone	1.56%
Gordon M. Cone	1.43%
Mary J. Dotson	.78%
General Crude Oil Company	18.75%
Sue Saunders Graham	1.04%
Martha Watkins Harris	.52%
Mrs. Clyde Miller	.52%
Mobil Oil Corporation	12.50%
Elyse Saunders Patterson	1.04%
Southern Petroleum Exploration Inc.	3.12%
Adele Irvine Sowell, Individually and as Independent Executrix of the Estate of R. H. Sowell, Deceased	6.25%
June D. Speight	2.35%
Ada E. Thomas	28.13%
Sally Saunders Toles	1.04%
Myrtis Dean Watkins	.52%
Hattie Cocke Williams	3.00%
J. H. Williams	.26%
Elizabeth Woolworth	2.08%
May Woolworth	2.61%
Atlantic Richfield Company	12.50%

NOTE NO. 24 - UNDER TRACT NO. 25

BASIC ROYALTY OWNER

Fern Cone	1.56%
Gordon M. Cone	1.43%
Hattie Cocke Williams	3.00%
June D. Speight	2.35%
General Crude Oil Company	18.75%
Southern Petroleum Exploration, Inc.	3.12%
Ada E. Thomas	28.13%
Elizabeth Woolworth	2.08%
May Woolworth	2.61%
Atlantic Richfield Company	12.50%
Elyse Saunders Patterson	1.04%
Sue Saunders Graham	1.04%
Sally Saunders Toles	1.04%
J. H. Williams	.26%
Myrtis Dean Watkins	.52%
Mrs. C. W. Miller	.52%
Mrs. Martha W. Harris	.52%
Mary J. Dotson	.78%
Mobil Oil Company	12.50%
Mrs. Adele Irvine Sowell	6.25%

OVERRIDING ROYALTY OWNER

Humble Oil and Refining Company	12.50000% (On Oil)
Humble Oil and Refining Company	25.00000% (On Gas and Casinghead Gas)
Scope Industries	2.50000%

\$245,000.00 Production Payment plus 6-1/2% interest from this and other Leases payable to AMC Corporation out of 65% of 75% of PETCO's Net Interest.

\$690,000.00 Production Payment plus 5% interest from this and other Leases payable to Permian Charitable Foundation of Midland, Texas, Inc. out of 25% of PETCO's Net Interest.

\$7,100,000.00 Production Payment plus 5-5/8% interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.

\$4,000,000.00 Production Payment plus 5-7/8% interest from this and other Leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.

NOTE NO. 25 - UNDER TRACT NO. 26

BASIC ROYALTY OWNER

Atlantic Richfield Company	7.77%
General Crude Oil Company	15.55%
Mobil Oil Corporation	31.10%
M. M. Miller	1.46%
Lydia Quilter	3.89%
Adele Irvine Sowell	4.47%
Atlantic Richfield Company	35.76%

EXHIBIT "C"

UNIT AGREEMENT
SCHEDULE OF TRACT PARTICIPATION
COOPER JAL UNIT - LEA COUNTY, NEW MEXICO

<u>TRACT NO.</u>	<u>PHASE I TRACT PARTICIPATION IN UNIT</u>	<u>PHASE II TRACT PARTICIPATION IN UNIT</u>
1	5.22514	6.60039
2	9.30905	9.34279
3	.41979	.65204
4	5.92856	6.13709
5	10.51021	14.01509
6	—	.69719
7	2.77474	.54082
8	2.09129	2.79791
9	5.17166	4.59899
10	—	.13830
11	—	.39418
12	3.44906	.18651
13	1.12888	1.16975
14	3.62738	2.76333
15	—	2.35316
16	16.29325	12.44491
17	1.52154	2.18280
18	2.88942	1.38779
19	—	4.08301
20	6.42925	4.34410
21	4.25213	2.22575
22	—	.27396
23	.62869	.81825
24	2.92371	3.58496
25	3.21549	8.32204
26	12.21056	7.84226
27	—	.10263
	<u>100.00000%</u>	<u>100.00000%</u>
TOTAL		

NOTE NO. 25 - UNDER TRACT NO. 26 (Cont'd.)

OVERRIDING ROYALTY OWNER

Scope Industries	2.50000%
\$7,100,000.00 Production Payment plus 5-5/8% interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.	
\$4,000,000.00 Production Payment plus 5-7/8% interest from this and other leases payable to Continental Illinois National Bank and Trust Company of Chicago out of Reserve's Net Interest.	

NOTE NO. 26 - UNDER TRACT NO. 27

BASIC ROYALTY OWNER

Midwest Oil Corporation	25.00%
L. L. Horne Estate	2.60%
Atlantic Richfield Company	12.50%
General Crude Oil Company	12.50%
Maude E. Soward	1.56%
May Woolworth	1.74%
Elizabeth Woolworth	1.39%
Myrtis Dean Watkins	.35%
Martha W. Harris	.35%
Clyde W. Miller	.35%
Ethel McCabe Trevitt	4.17%
Gonzales Royalties, Inc.	1.25%
Livingston Oil Company	1.19%
George V. Holmes, Trustee	1.73%
Socony Mobil	12.50%
Iris Goldston	10.41%
Iris Goldston and Houston Bank & Trust Company as Co-Trustees U/W/O W. L. Goldston, Deceased	10.41%

* * * *

Except as otherwise expressly set forth, the basic royalty and overriding royalty interests and owners shown on this supplement to Exhibit "B" have been set forth and calculated with respect to the royalties and overriding royalties payable on oil only.

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. 4402
Order No. R-4018

APPLICATION OF RESERVE OIL AND GAS
COMPANY FOR APPROVAL OF THE COOPER-
JAL UNIT AGREEMENT, LEA COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

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

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 applicant, Reserve Oil and Gas Company, seeks
approval of the Cooper-Jal Unit Agreement covering 2581 acres,
more or less, of Federal and fee lands described as follows:

LEA COUNTY, NEW MEXICO

TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM

Section 13: S/2
Section 14: SE/4 SE/4
Section 23: S/2 SE/4
Section 24: All
Section 25: N/2
Section 26: E/2 NE/4

TOWNSHIP 24 SOUTH, RANGE 37 EAST, NMPM

Section 18: All
Section 19: W/2
Section 30: NW/4

-2-

CASE No. 4402

Order No. R-4018

(3) That approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

IT IS THEREFORE ORDERED:

(1) That the Cooper-Jal Unit Agreement is hereby approved.

(2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.

(3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.

(4) That this order shall become effective upon the approval of said unit agreement by the Director of the United States Geological Survey; that this order shall terminate ipso facto upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.

(5) 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

DAVID F. CARGO, Chairman

ALEX J. ARMISTO, Member

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



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

PM 12 54

OCT 27 1970

4402

September 29, 1970

Mr. A. J. Losee
P. O. Drawer 239
Artasia, New Mexico 88210

Dear Mr. Losee:

The Cooper Jal unit agreement, Lea County, New Mexico, was approved on September 29, 1970, and has been designated No. 14-08-0001-11584. Please submit the Certificate of Effectiveness required by Article 22 of the unit agreement to formally establish the effective date.

Enclosed is one approved copy of the unit agreement for your records. Please furnish the New Mexico Oil Conservation Commission and all other interested principals with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

cc:
Washington (w/cy agreement)
BLM, Santa Fe (w/cy agreement)
NMOC, Santa Fe
BOMC, Roswell
Hobbs (w/cy agreement)



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

November 17, 1970

4402

Reserve Oil and Gas Company
1806 Fidelity Union Tower
Dallas, Texas 75201

Attention: Mr. M. Wyndell Thomas

Gentlemen:

Your initial plan of secondary recovery operations, dated September 28, 1970, supplemented by your letter of November 5, 1970, for the Cooper Jal unit, Lea County, New Mexico, has been approved on this date.

One approved copy of the plan is enclosed.

Sincerely yours,

(ORIG. SGD.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

cc:
Washington (w/cy plan)
Hobbs (w/cy plan)
NMOCC, Santa Fe (letter only)



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

November 18, 1970

Mr. A. J. Losee
P.O. Drawer 239
Artesia, New Mexico 88210

Dear Mr. Losee:

Receipt of the following papers submitted by you in behalf of Reserve Oil and Gas Company relative to commitment of certain production payment interests in the Cooper Jal unit area is hereby acknowledged.

1. Joinder to the unit agreement by Permian Charitable Foundation of Midland, Texas, Inc., committing its production payment interests in tracts 4, 14, 19 and 25.
2. Letter from R. Olsen Estate stating that Texas Pacific Oil Company is authorized to commit said estate's production payment interest in tract 3 to the unit agreement.
3. Letter from Howard Olsen stating that Texas Pacific Oil Company is authorized to commit his production payment interest in tract 3 to the unit agreement.
4. Release of production payment in tract 3 by the Prudential Insurance Company of America.
5. Release of production payment in tracts 4, 14, 19 and 25 by AMC Corporation.

(ORIG. SGD.) CARL C. TRAYWICK
CARL C. TRAYWICK
Acting Oil and Gas Supervisor

cc:
Washington (w/cy atchs)
Hobbs (w/cy atchs)
BLM, Santa Fe (w/cy atchs)
NMOCC, Santa Fe (ltr only)
Accounting



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

PH 1 06
970 OCT

4402

October 14, 1970

A. J. Loses
P. O. Drawer 239
Artesia, New Mexico 88210

Dear Mr. Loses:

Your letter of October 9, 1970, transmits one copy of a "Certificate as to Effective Date" for the Cooper Jai unit agreement, No. 14-08-0001-11584. Such instrument is filed pursuant to Article 22 of the unit agreement to formally establish the effective date of the unit agreement as October 1, 1970. The certificate is hereby accepted for the record and copies thereof are being furnished to the appropriate Federal offices.

Sincerely yours,

N. O. FRIEDERICK
Regional Oil and Gas Supervisor

cc:
Washington (w/cy attach.)
BLM, Santa Fe (w/cy attach.)
Hobbs (w/cy attach.)
NWCC, Santa Fe (ltr. only) ✓
Accounts



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
DAVID F. CARGO
CHAIRMAN
LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER
STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

August 25, 1970

Mr. A. J. Losee
Attorney at Law
Post Office Box 239
Artesia, New Mexico 88210

Re: Case No. 4402
Order No. R-4018
Applicant:
Reserve Oil & Gas

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other Unit Division - State Land Office

Docket No. 19-70

DOCKET: REGULAR HEARING - WEDNESDAY - AUGUST 19, 1970

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

- ALLOWABLE:
- (1) Consideration of the oil allowable for September and October, 1970;
 - (2) Consideration of the allowable production of gas for September, 1970 from fifteen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, September, 1970.

THE FOLLOWING CASES WILL BE HEARD BEFORE DANIEL S. NUTTER, EXAMINER, OR ELVIS A. UTZ, ALTERNATE EXAMINER, IN THE OIL CONSERVATION COMMISSION CONFERENCE ROOM ON THE SECOND FLOOR OF SAID BUILDING AT 9:30 a.m.

CASE 4414: Southeastern New Mexico nomenclature case calling for an order for the creation and extension of certain pools in Lea, Chaves, and Eddy Counties, New Mexico:

- (a) Create a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Townsend-Morrow Gas Pool. The discovery well is the Avance Oil & Gas Company State ETA No. 2 located in Unit I of Section 8, Township 16 South, Range 35 East, NMFM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMFM
SECTION 8: SE/4

- (b) Extend the Allison-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 36 EAST, NMFM
SECTION 12: S/2

- (c) Extend the Baum-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 13 SOUTH, RANGE 32 EAST, NMFM
SECTION 36: NW/4

(d) Extend the Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
SECTION 24: E/2 NE/4

(e) Extend the EK Yates-Seven Rivers-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM
SECTION 19: SE/4
SECTION 20: SW/4

(f) Extend the Hobbs-Blinbry Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 38 EAST, NMPM
SECTION 19: S/2

(g) Extend the Indian Basin-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM
SECTION 21: N/2 and N/2 N/2 N/2 S/2

(h) Extend the Paduca-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 31 EAST, NMPM
SECTION 1: W/2
SECTION 12: W/2

(i) Extend the Springs-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 25 EAST, NMPM
SECTION 3: Lots 1, 2, 7, 8, 9, 10,
15 and 16

(j) Extend the Sulimar-Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM
SECTION 26: SW/4 NE/4

(k) Extend the Tres Papalotes-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 34 EAST, NMPM
SECTION 33: NW/4

(l) Extend the Northwest Vacuum-Wolfcamp Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
SECTION 5: SW/4

CASE 4413: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to permit Stanley Leonard Jones dba Francisca Corporation and all other interested parties to appear and show cause why the Francisca Corporation Beeman Well No. 1 located 1980 feet from the South and West lines of Section 2, Township 24 South, Range 28 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 4172: (Reopened)

In the matter of Case No. 4172 being reopened pursuant to the provisions of Order No. R-3816, which order established 80-acre spacing units for the Northeast Lovington-Pennsylvanian Pool, Lea County, New Mexico. All interested parties may appear and show cause why the said pool should not be developed on 40-acre spacing units.

CASE 4399: Application of Pan American Petroleum Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle in the wellbore production from the Blinbry, Tubbs, and Drinkard Oil Pools in its Southland Royalty "A" Well No. 8 located in Unit O of Section 4, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 4400: Application of David C. Collier for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico. Said exception would be for applicant's Southern Federal Lease in Units A, C, E, G, I, K, and M of Section 30, Township 19 South, Range 31 East, North Hackberry Yates-Seven Rivers Pool, Eddy County, New Mexico.

- CASE 4401: Application of Read and Stevens, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen, San Andres, Glorieta, and Delaware formations in the open-hole interval between the 8 5/8 inch casing shoe at 3998 feet and the top of the cement at 6109 feet in its Getty State "B.G." Well No. 1 located in Unit K of Section 12, Township 19 South, Range 34 East, Quail-Queen Pool, Lea County, New Mexico.
- CASE 4402: Application of Reserve Oil and Gas Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Cooper-Jal Unit Area comprising 2581 acres, more or less, of Federal and fee lands in Township 24 South, Ranges 36 and 37 East, Lea County, New Mexico.
- CASE 4403: Application of Reserve Oil and Gas Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by water injection through 26 wells into the Lower Seven-Rivers and Queen formations underlying its Cooper-Jal Unit Area, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 4404: Application of Reserve Oil and Gas Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by water injection through 23 wells into the Tansill, Yates, and Upper and Middle Seven-Rivers formations underlying its Cooper-Jal Unit Area, Jalmat Pool, Lea County, New Mexico.
- CASE 4405: Application of Reserve Oil and Gas Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Langlie-Jal Unit Area comprising 1080 acres, more or less, of fee lands in Township 25 South, Range 37 East, Lea County, New Mexico.
- CASE 4406: Application of Reserve Oil and Gas Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by water injection through 13 wells into the Seven Rivers and Queen formations underlying its South Langlie-Jal Unit Area, Langlie-Mattix Oil Pool, Lea County, New Mexico.
- CASE 4407: Application of Tenneco Oil Company for an unorthodox oil well location, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox Dakota oil well location 1980 feet from the South and East lines of Section 13, Township 17 North, Range 9 West, Hospah Field, McKinley County, New Mexico, said location being closer than 330 feet to an inner boundary line.

- CASE 4408: Application of Keohane and Westall for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicants' State Well No. 1, located in Unit D of Section 2, Township 19 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.
- CASE 4409: Application of Anadarko Production Company for two waterflood expansions, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the expansion of its Federal Q Waterflood Project by the conversion to water injection of three additional wells in Units J, L, and P of Section 3, Township 17 South, Range 30 East, Square Lake Pool, Eddy County, New Mexico. Applicant further seeks the expansion of the Stallworth Oil and Gas Company Parke Waterflood Project by the conversion to water injection of one additional well in Unit H of said Section 3.
- CASE 4410: Application of Major, Giebel & Forster for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SE/4 of Section 28, Township 25 South, Range 37 East, Crosby-Devonian Pool, Lea County, New Mexico, said acreage to be dedicated to a well to be drilled in said quarter section. Also, to be considered will be the cost of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.
- CASE 4411: Application of Continental Oil Company for an exception to Rule 104 C I, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 104 C I of the Commission Rules and Regulations to permit the completion within 660 feet of another producing well in the same formation of its State H-35 Well No. 10 located 2030 feet from the North line and 1780 feet from the East line of Section 35, Township 17 South, Range 34 East, Vacuum Pool, Lea County, New Mexico.
- CASE 4412: Application of Continental Oil Company for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project by the injection of water into the Yates and Seven Rivers formations through two wells on its McCallister "A" lease in Section 24, Township 26 South, Range 36 East, Scarborough Yates-Seven Rivers Pool, Lea County, New Mexico.

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
RESERVE OIL AND GAS COMPANY FOR
APPROVAL OF THE COOPER-JAL UNIT
AGREEMENT, LEA COUNTY, NEW MEXICO.

Case 4402

APPLICATION

COMES RESERVE OIL AND GAS COMPANY, by its attorney,
A. J. Losee, and states:

1. Applicant proposes to operate and develop as a
unitized area, for the secondary recovery of oil and gas from
the Tansill, Yates, Seven Rivers and Queen Formations, under
and by virtue of the terms of the Unit Agreement, a copy of
which is filed herewith and by reference made a part hereof,
the following lands in Lea County, New Mexico:

Township 24 South, Range 36 East, N.M.P.M.

Section 13: S/2
Section 14: SE/4 SE/4
Section 23: S/2 SE/4
Section 24: All
Section 25: N/2
Section 26: E/2 NE/4

Township 24 South, Range 37 East, N.M.P.M.

Section 18: All
Section 19: W/2
Section 30: NW/4

containing 2,581 acres, more or less.

2. The participating area established by the
Unit Agreement comprises 2,581 acres of which 28.86 percent
are Federal lands and 71.14 percent are fee lands.

3. Applicant is proposed to be the Operator of
the unit area.

DOCKET MAILED

Date 8-6-70

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4. On January 5, 1970, the United States Geological Survey advised the applicant that the lands above described are acceptable as a logical unit area for secondary recovery operations, and approved the form of unit agreement that is attached to this application.

5. Pursuant to Article XIII, participation in production will be based upon the following two-phase formula, to-wit:

Phase I: Total income from oil, casinghead gas and dry gas during the year 1967 until a total of 1,000,000 barrels of oil is produced from the unit area after January 1, 1968.

Phase II: Ultimate primary.

6. Article XXII of the Unit Agreement entitled "Effective Date and Term," provides that the agreement will become effective when it is executed or ratified by working interest owners owning tracts with a combined Phase I unit participation of at least 85 percent and by royalty owners owning tracts with a combined interest of at least 65 percent of the royalty interest in the unit area, calculated on the basis of Phase I participation. When the Unit Agreement has been executed by the United States, a sufficient number of working and royalty interest owners will have executed or ratified the agreement so that it will become effective pursuant to said Article XXII.

7. The proposed plan for the development and operation of the Tansill, Yates, Seven Rivers and Queen formations underlying the above described unit area will promote the prevention of waste and protect correlative rights within the unit area,

and the method of allocating production within the unit area is fair to all of the working and royalty interest owners.

WHEREFORE, applicant prays:

A. That this matter be set for hearing before an examiner appointed by the Commission, and that due public notice be given as required by law.

B. That the Commission approve the Cooper-Jal Unit Agreement and the plans contained in said Unit Agreement for the development and operation of the unit area as a proper conservation measure.

DATED this July 17, 1970.

RESERVE OIL AND GAS COMPANY

By: 

A. J. Losee
Attorney at Law
P. O. Drawer 239
Artesia, New Mexico 88220

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
RESERVE OIL AND GAS COMPANY FOR
APPROVAL OF THE COOPER-JAL UNIT
AGREEMENT, LEA COUNTY, NEW MEXICO.

Case 4402

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DATED this July 17, 1970.

RESERVE OIL AND GAS COMPANY

By: 

A. J. Losee
Attorney at Law
P. O. Drawer 239
Artesia, New Mexico 88210

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
RESERVE OIL AND GAS COMPANY FOR
APPROVAL OF THE COOPER-JAL UNIT
AGREEMENT, LEA COUNTY, NEW MEXICO.

Case 4402

APPLICATION

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WHEREFORE, applicant prays:

A. That this matter be set for hearing before an examiner appointed by the Commission, and that due public notice be given as required by law.

B. That the Commission approve the Cooper-Jal Unit Agreement and the plans contained in said Unit Agreement for the development and operation of the unit area as a proper conservation measure.

DATED this July 17, 1970.

RESERVE OIL AND GAS COMPANY

By: 

A. J. Losse
Attorney at Law
P. O. Drawer 239
Artesia, New Mexico 88210

JOEL M. CARSON

LAW OFFICES
A. J. LOSEE
CARPER BUILDING - P. O. DRAWER 239
ARTESIA, NEW MEXICO 88210

17 July 1970

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AREA CODE 505
746-3508

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Case 4402

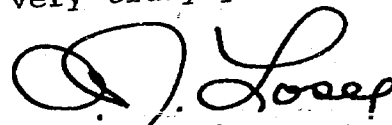
Dear Mr. Porter:

Enclosed, please find triplicate copies of the following applications, together with the attachments therein referred to, before the Oil Conservation Commission of the State of New Mexico, to-wit:

- ✓ 1. Application for Approval of Cooper-Jal Unit Agreement.
2. Application for Approval of Waterflood Project, Jalmat Oil Pool.
3. Application for Approval of a Waterflood Project, Langlie Mattix Pool.
4. Application for Approval of South Langlie Jal Unit Agreement.
5. Application for Approval of a Waterflood Project, South Langlie-Mattix Pool.

We ask that you set these cases for hearing before an examiner on August 19, 1970.

Very truly yours,


A. J. Losee

AJL:jw
Enclosures

cc: Mr. Carl Traywick, Acting Supervisor
U.S.G.S., Roswell, New Mexico with
Application for Approval of Cooper-
Jal Unit Agreement enclosed.
Mr. M. Wyndell Thomas

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

ASD
CASE No. 4402

Order No. R- 4018

Jan
APPLICATION OF RESERVE OIL AND GAS COMPANY
FOR APPROVAL OF THE COOPER-JAL
UNIT AGREEMENT, LEA, COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

9:30

This cause came on for hearing at ~~9 o'clock~~ a.m. on
August 19, 19670, at Santa Fe, New Mexico, before Examiner
Daniel S. Nutter.

NOW, on this _____ day of August, 19670, 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 applicant, Reserve Oil and Gas Company,
seeks approval of the Cooper-Jal Unit Agreement
covering 2581 [✓] acres, more or less, of ~~State~~ Federal lands
and fee
described as follows:

LEA COUNTY, NEW MEXICO
TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM

Section 13: S/2
Section 14: SE1/4 SE1/4
Section 23: S1/2 SE1/4
Section 24: all
Section 25: N1/2
Section 26: E1/2 NE1/4

TOWNSHIP 24 SOUTH, RANGE 37 EAST, NMPM

Section 18: all
Section 19: W1/2
Section 30: NW1/4

(3) That approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

IT IS THEREFORE ORDERED:

(1) That the Cooper-Jal Unit Agreement is hereby approved.

(2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.

(3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.

(4) That this order shall become effective upon the approval of said unit agreement by the ~~Commissioner of Public Lands for the State of New Mexico and the~~ Director of the United States Geological Survey; that this order shall terminate ipso facto upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.

(5) 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.

CASE 4403: Application of RESERVE
OIL & GAS COMPANY FOR A WATERFLOOI
PROJECT, LEA COUNTY, NEW MEXICO.

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