

Case No.

198

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Application, Transcript,  
Small Exhibits, Etc.

to be a development that the location was wrong, so I personally went out there and resurveyed it and made the second certified plat as to the location.

MR. McCORMICK: How far is it from the west line of that forty?

A. 115 feet.

MR. GRAHAM: Are there any other wells on that same forty?

A. No, sir.

MR. SHEPARD: Is there any wells on the forty to the west of it?

A. No, sir, there isn't yet.

MR. SHEPARD: And the northwest of the northeast is owned by Jones and Watkins?

MR. JONES: So far as I know, yes, sir.

MR. SHEPARD: Thank you.

GOVERNOR MABRY: Anybody have anything to offer in this case on this docket?

MR. NEWMAN: Justin B. Newman, of the Oil Conservation Commission. When Mr. Jones said the well was 740 feet from the south line, Mr. Jones, you meant 740 feet from the north line?

A. Yes, I beg your pardon.

MR. NEWMAN: I just wanted to be sure the record was straight on that.

GOVERNOR MABRY: Anyone else to be heard on this. It will be taken under advisement, and we will take the next case. Case No. 198.

(Mr. Graham reads the Notice of Publication in Case No. 198.)

MR. KELLOUGH: My name is Booth Kellough. I am an attorney for the Amerada. This is our application for 80-acre spacing in the area commonly referred to as the Hightower Area in Township 12 South, Range 33 East, Lea County, New Mexico. We have two witnesses, Mr. Carl Barnhart, the geologist, and Mr. Bob Christie,

our engineer. I am going to attempt to limit my examination to Mr. Barnhart to geological matters, and Mr. Christie to engineering matters. And in that way present the whole picture to the Commission, but not all by the one witness.

MR. SHEPARD: Do you want your witnesses sworn?

MR. KELLOUGH: Yes.

MR. SHEPARD: Swear them, Mr. Graham, please.

(Witnesses sworn.)

CARL BARNHART, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. KELLOUGH:

Q. Please state your name to the Commission.

A. Carl Barnhart.

Q. Where do you live, Mr. Barnhart?

A. Midland, Texas.

Q. By whom are you employed?

A. Amerada.

Q. In what capacity are you employed?

A. Geologist.

Q. And how long have you been a geologist for the Amerada?

A. Fifteen years.

Q. Mr. Barnhart, are you familiar with a well commonly referred to as the Amerada-State RTB No. 1 and located in Section 26, Township 12 South, Range 33 East, Lea County, New Mexico?

A. Yes.

Q. Mr. Barnhart, I hand you what has been marked Exhibit 1 and ask you to state to the Commission what that Exhibit is?

A. It is a map showing the location of the Amerada State RTB and the drilling wells surrounding it. Also outlined is an area which we anticipate to be productive.

Q. The four sections outlined in red, is that the area which is asked to be spaced in this Hearing?

A. That's right.

Q. And that shows all wells which have been drilled or are now drilling in that area?

A. Right.

Q. Does that also indicate the lease ownership?

A. Yes.

Q. And from this map it appears that Amerada owns leases covering the entire Section 23, 26, and 27; and that Gulf Oil Corporation owns leases covering Section 22, is that right?

A. Yes.

Q. Now, from that map, Mr. Barnhart, will you please describe to the Commission the location of State BTB?

A. It is located in the center of the northwest of the northwest of Section 26, 12 South, 33 East.

Q. Mr. Barnhart, I hand you what has been marked Amerada Exhibit No. 2 and ask you to please state to the Commission what that Exhibit is?

A. It is a print of the Schlumberger Survey on Amerada No. 1 BTB from the depth of zero to total depth of 11,199.

MR. KELLOUGH: We offer Exhibits No 1 and 2 in evidence.

GOVERNOR MABRY: They will be received.

Q. What is the completion date of the Amerada BTB No. 1 Well?

A. The original completion date is August 26, 1949.

Q. Did that well discover a new common source of supply or a new pool, Mr. Barnhart?

A. Yes.

Q. What is the producing formation which is discovered in that well?

A. It is lower Devonian in age, probably Devonian.

Q. Will you state to the Commission in your own words, describe to the Commission, how the State BTB Well was completed, giving the depth of the producing formation in your explanation?

A. The well was drilled to a total depth of 11,199 feet and bottomed in the basement complex.. The well was then plugged back to 10,270 feet, 5½ inch casing run to 10,270 feet. The casing was then perforated from 10,170 feet to 10,180 opposite a porous zone in the Devonian. It swabbed 35 barrels of oil in 23 hours natural. It was treated with 250 gallons of acid and flowed 1286 barrels of pipeline oil in 22½ hours, and then started making 15 per cent water through these perforations. On the basis of this test, the original initial production was filed for a total of 1386 barrels of oil plus 16 barrels of water in 24 hours flowing through a 24/64 inch tubing choke with a gas oil ratio of 270. The casing perforations from 10,170 to 180 were squeezed off, and the well was then perforated from 10,155 to 165, treated with 250 gallons of acid and completed--recompleted, that is--August 31, 1949, for a flowing potential of 781 barrels of pipeline oil in 19 and 3/4 hours through 1/4 inch tubing choke and with a gas oil ratio of 280, and a corrected gravity of 56.9.

Q. Then the well is now being produced through perforations from 10,155 to 10,165 feet?

A. That is correct.

Q. And what would you say the top of the formation discovered in that well is?

A. The top of the Devonian on our interpretation is at 10,090 feet.

Q. And what would you say the top of the effective pay is?

A. We call the top of effective pay at 10,128 feet.

Q. And what, in your opinion, is the base of the effective pay?

A. On our base interpretation we call the water oil contact at 10,195 feet.

Q. Mr. Barnhart, did the samples which you cut in that well show anything with reference to the permeability?

A. As best we could interpret from well cuttings, we did interpret the samples as carrying good porosity and probably very good permeability.

Q. Would you recommend that Sections 22, 23, 26 and 27 be included in the spacing order which you are now asking for?

A. Yes.

Q. In your opinion, Mr. Barnhart, from the information which you have from this BTB Well, does the probable productive limitation of the common source of supply or the pool discovered in that well cover at least the four sections just named?

A. In our interpretation it would reasonable to assume that the pool would cover at least those four sections.

Q. Now, referring to the map, marked Exhibit 1, will you please state--will you please point out to the Commission any other wells in the area you recommend to be spaced and tell the Commission the present status of those wells.

A. In Section 22 in the southeast of the southeast, Gulf is drilling a well at approximately 9,000 feet present depth. In the northwest of the southwest of Section 22, pardon me, Section 26, Amerada ~~was~~ drilling a well at 9,000 feet. Both wells are projected to the Devonian pay of the BTB.

MR. KELLOUGH: That is all the questions I have of this witness.

GOVERNOR MABRY: Very well.

MR. McCORMICK: Your pay is 67 feet?

A. Yes.

MR. McCORMICK: How much did it cost you to drill a well to that depth?

MR. KELLOUGH: Excuse me, please, I am not objecting to the question, but we have our engineer here who will go into the matter of well cost, and I believe he is more familiar with it than Mr. Barnhart, but if Mr. Barnhart knows, it is all right to answer the question.

A. I don't have that exact cost figures available.

MR. McCORMICK: Are you familiar with the ownership of the south half of 26?

A. As shown on our land maps, Amerada owns the south half.

MR. McCORMICK: It is fee land, isn't it?

A. Yes, it is fee land.

MR. McCORMICK: Have you consulted, or has any member of your company consulted with the royalty owners about this matter, the royalty owners under the south half of 26?

A. Not to my knowledge, no.

MR. McCORMICK: That is the only fee land in the four sections. The rest is State land?

A. The rest is State land.

MR. McCORMICK: Why do you recommend 80-acre spacing?

A. I believe on the basis of the permeability and the porosity that we found in well cuttings plus the action of the well, which Mr. Christie will give you later, that 80-acres will drain, that is, one well will drain 80 acres.

MR. McCORMICK: Is there more permeability there than in other pools that are using 40-acre spacing?

A. There is more permeability. Of course, we are limited in

knowledge of the Devonian production, but this is more permeable from oil cuttings than our average Permian pay fields. This is a solution type of porosity, whereas most of our Permian porosity is inter-crystalline porosity.

MR. McCORMICK: Just what does that mean?

A. Larger openings.

MR. McCORMICK: Are you familiar with the Hamilton Area?

A. Yes.

MR. McCORMICK: It is now called the Knowles?

A. Yes.

MR. McCORMICK: How does this compare to that as to permeability and porosity?

A. Very similar.

MR. McCORMICK: Is it the same producing horizon?

A. Yes, approximately, both being Devonian in age.

MR. McCORMICK: That has 80-acre spacing, does it not?

A. I don't believe it has been set up, as far as I know, no rules have been made in the Knowles Area.

MR. McCORMICK: That is all I have.

GOVERNOR MABRY: Thank you, sir.

MR. ADAIR: If the Commission please, I would like to ask the witness one question. The Commission has pending before it now an application for similar rules in an area just north of the BTB Area here. I would like to ask Mr. Barnhart if this is a separate pool or a separate source of supply from the area that is productive to the north surrounding this BTA well?

A. I would say yes, based on the extreme difference in water oil contact of the two areas. This well structurally is 700 feet higher than the BTA. The oil water contact is 835 feet high. Based on that primarily, I interpret them as separate pools.



MR. ADAIR: That is all, sir.

MR. KELLOUGH: That is all, Mr. Barnhart.

ROBERT J. CHRISTIE, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. KELLOUGH:

Q. Will you please state your name to the Commission.

A. Robert J. Christie.

Q. Where do you live, Mr. Christie.

A. Fort Worth, Texas.

Q. And by whom are you employed?

A. Amerada Petroleum Corporation.

Q. And in what capacity?

A. Division Petroleum Engineer.

Q. How long have you been an engineer for Amerada?

A. Approximately sixteen years.

Q. And you have previously testified before this Commission as an engineer?

A. I have.

Q. Mr. Christie, regarding this State BTB Well, do you have any information with reference to pressure, bottom hole pressure?

A. Yes, sir, we ran a bottom hole pressure test on the BTB Well No. 1 on September 15 of this year. The static pressure after being shut in for sixteen days was 3,884 pounds per square inch. The well was opened on a quarter inch choke, tubing choke, and the pressure immediately dropped from 3884 to 3853, which is a drop of 31 pounds, and the bottom hole pressure stayed at that figure during the duration of the test, which was run for 24 hours.

MR. MCCORMICK: What is the significance of that, Mr. Christie?

A. It indicates to me a very effective water (deep) drive?

Q. Mr. Christie, does that also indicate anything with reference to permeability?

A. During that 24-hour test, the well produced approximately 1,000 barrels, or between 41 and 42 barrels per hour. That indicates relatively good permeability, I would think. With that rate of production and no more drop in bottom-hole pressure at 31 barrels.

Q. What is the gravity of the oil?

A. Approximately 57 degrees API.

Q. Do you know the cost of this well?

A. The cost is approximately \$250,000.00.

MR. McCORMICK: That is on the initial well?

A. That is on the initial well.

MR. McCORMICK: What will a field well cost?

A. We estimate that future wells to that same depth will cost approximately \$225,000.00.

Q. Mr. Christie, in your opinion, what is the area which may be effectively drained by one well?

A. Based on our PI test and on geological information on the permeability, it is my opinion that one well will drain at least 80 acres.

Q. From the information which you have obtained from this well together with the well cost, is it your opinion that 80 acres is an area which may be economically drained and economically developed by one well?

A. Yes, sir, it is.

Q. And you recommend that the Commission order 80-acre proration units?

A. Yes, sir.

Q. What recommendation do you have with reference to well

spacing and the location of wells in this area?

A. We would suggest the wells be drilled in the northwest quarter or southeast quarter of each 160 acres in the outlying area and that the 80-acre proration units be extended east and west, that is, have them running east and west.

Q. In that connection, may I ask you if Exhibit No. 1 does not show--I beg your pardon. I wish to make this statement for the Commission, the Exhibit does not show, but the records show that in the southeast of Section 26 you will notice there are two 80-acre tracts; one the north half of the southeast, and the other the south half of the southeast. And the records show there is separate ownership of those two tracts.

MR. McCORMICK: You mean of the minerals?

MR. KELLOUGH: I mean of the minerals, yes.

MR. McCORMICK: What about in the southwest quarter?

MR. KELLOUGH: It is the same mineral ownership according to the records. In every other section in the area, that is, as far as the three sections in which Amerada owns leases, the ownership is at least in 160 acres. The only 80-acre division according to the records is in the north half and south half of the southeast quarter. That may or may not be material.

GOVERNOR MABRY: Is that all from this witness?

MR. KELLOUGH: I have one or two questions, please.

Q. Do you know whether or not there has been a name recommended for this pool?

A. The nomenclature committee have recommended the name of Hightower for this area.

Q. Do you have any recommendation to make with regard to allowables?

A. We would suggest for the present, at least until we perhaps

find out more about the reservoir through future drilling, that the allowable be set as the allowable for that depth pool on a 40-acre unit, which would be, I believe, 187 or 189 barrels.

Q. 196?

A. 196, that's right.

Q. And you make that recommendation as a temporary matter, pending further development of the area, is that right?

A. Yes, sir.

Q. Do you have any recommendation to make with reference to any special field rules?

A. The only field rules that I would suggest would be a tolerance in the location of the well of 150 feet.

MR. McCORMICK: You are allowed that tolerance any way under present rules, are you not? NOT 50 (RS)

A. I believe so, yes, sir. The other rules we would prefer that the Statewide rules apply at the present time.

Q. Then you have no special field rules to recommend?

A. No, sir.

Q. Do you recommend and do you request this Commission to make this order applicable to the entire common source of supply, which has been discovered in this well, even though it may be determined to be within or without this four section area?

A. I believe it would be desirable to maintain that pattern within the entire pool.

Q. So that it is your request and recommendation to the Commission that any well drilled to this common source of supply whether within or without the area be drilled on this pattern?

A. Yes, sir.

Q. Now, in your opinion, will 80-acre proration units prevent

waste and avoid the drilling of unnecessary wells and promote conservation?

A. I believe it will, yes, sir.

MR. KELLOUGH: That is all I have.

GOVERNOR MABRY: Any questions of this witness from anyone else?

MR. ADAIR: Do you have any bottom hole analysis?

A. No.

MR. McCORMICK: Does anyone represent the Gulf here who wishes to make any statement?

GOVERNOR MABRY: If not the case will be taken under advisement, and the witnesses excused.

MR. GRAHAM: May I ask one question?

Q. What is the status of 191 which is now being continued?

MR. KELLOUGH: Mr. Adair, of the Texas Pacific, is the one that knows about this. The status of--

MR. ~~SHEPHERD~~ <sup>Shuele</sup>: I assume you are referring to the Texas Pacific Coal and Oil Company's State BT Well. It is drilling, as I understand, in the upper part of the Mississippian Formation, and we have approximately 1,000 feet, I understand. It will be about 30 days to complete the well.

MR. GRAHAM: My question really had to do with Amerada's application in the BTA Well.

MR. KELLOUGH: Mr. Graham, as I recall it was included in connection with this application that as soon as that well was completed, the Texas Pacific would advise us and the matter could be set down. But that is separate and distinct from this hearing. As far as I know, the agreement is the same with reference to the other case, but that has no bearing at all on this particular case.

MR. GRAHAM: In the same area?

MR. KELLOUGH: But a separate source of supply.

MR. ADAIR: The Commission's action on your application on BTE will not serve as any predicate on the application pending in BTA?

MR. KELLOUGH: That is up to the Commission. Geologically the matters are different, and that is the point I want the Commission to be sure and understand.

MR. MCCORMICK: I think the Commission understands that.

MR. KELLOUGH: The witness testified on that.

GOVERNOR MABRY: Will you read the next case, please.

(Mr. Graham reads the Notice of Publication in Case No. 199.)

MR. SHELDON: My name is Vilas P. Sheldon representing Roland Rich Woolley.

(Mr. Sheldon sworn.)

MR. GRAHAM: Proceed, Mr. Sheldon.

MR. SHELDON: Mr. Roland Rich Woolley, operating a lease in the name of and for A. S. Woolley, now owns and operates the 160 acre lease in the Square Lake Pool of Eddy County. This lease now has four producing wells, each one of which is drilled in the center of a 40-acre proration unit. Production has declined to a rather low figure. I don't have it here, but Well No. 2 in the northeast 40-acre unit is now producing at a very low rate, and Woolley proposes that No. 2 Well be plugged and abandoned and that an additional well, which will be an unorthodox location, be authorized some 25 feet out of the center of the 160. It would then be 1345 feet from the west line and 1295 feet from the north line of his lease. It would not crowd any other operator. It would be just in the center of his own lease. The purpose for the request is to possibly produce some oil that could not be produced with the present wells.

NOTICE FOR PUBLICATION

STATE OF NEW MEXICO

OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives public

notice pursuant to law of a public hearing

to be held November 1, 1949, beginning at

10:00 o'clock A.M. of that day in the

City of Santa Fe, New Mexico, in the

Senate Chambers.

STATE OF NEW MEXICO TO:

All named parties in the following

cases, and notice to the public:

Case 189

In the matter of the application of the

Oil Conservation Commission upon its own

motion to revise the rules and regulations

of the Commission to conform with the

provisions of Chapter 168 of the New Mex-

ico Laws of 1949, and to consider Commit-

tee recommendation and take testimony in

the premises. This is a readvertisement.

Case 197

In the matter of the application of Jones

and Watkins applicants, for an order ap-

proving an unorthodox location for a well

1205 feet west of the east line and 740 feet

south of the north line (NE/4 NE/4) of

Section 10, Township 19 South, Range 29

East, N.M.P.M., Turkey Track Pool, Eddy

County, New Mexico.

Case 198

In the matter of the application of

Amerada Petroleum Corporation for an

order establishing proration units and

uniform spacing of wells for the common

source of supply discovered in Amerada-

State BTB No. 1 well, in NW/4 NW/4 of

Section 26, Township 12 South, Range 33

East, N.M.P.M., Bagley Area, Lea County,

New Mexico.

Case 199

In the matter of the application of Ro-

land Rich Woolley for an order approving

an unorthodox location 1345 feet east of

the west line and 1295 feet south of the

east line of Section 3, Township 17 South,

Range 30 East, N.M.P.M., Square Lake

Pool, Eddy County, New Mexico.

Given under the seal of the Oil Conser-

vation Commission of New Mexico, at

Santa Fe, New Mexico, on October 13, 1949.

STATE OF NEW MEXICO

OIL CONSERVATION COM-

MISSION

(SEAL) R. R. SPURRIER

R. R. Spurrier, Secretary

Sub. Oct. 17, 1949.

NOTICE FOR PUBLICATION  
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives public notice pursuant to law of a public hearing to be held November 1, 1949, beginning at 10:00 o'clock A.M. of that day in the City of Santa Fe, New Mexico, in the Senate Chambers.

STATE OF NEW MEXICO TO:

All named parties in the following cases, and notice to the public:

Case 189

In the matter of the application of the Oil Conservation Commission upon its own motion to revise the rules and regulations of the Commission to conform with the provisions of Chapter 168 of the New Mexico Laws of 1949, and to consider Committee recommendation and take testimony in the premises. This is a readvertisement.

Case 197

In the matter of the application of Jones and Watkins applicants, for an order approving an unorthodox location for a well 1205 feet west of the east line and 740 feet south of the north line (NE/4 NE/4) of Section 10, Township 19 South, Range 29 East, N.M.P.M., Turkey Track Pool, Eddy County, New Mexico.

Case 198

In the matter of the application of Amerada Petroleum Corporation for an order establishing proration units and uniform spacing of wells for the common source of supply discovered in Amerada-State BTB #1 well, in NW/4 NW/4 of Section 26, Township 12 South, Range 33 East, N.M.P.M., Bagley Area, Lea County, New Mexico.

Case 199

In the matter of the application of Roland Rich Woolley for an order approving an unorthodox location 1345 feet east of the west line and 1295 feet south of the north line of Section 3, Township 17 South, Range 30 East, N.M.P.M., Square Lake Pool, Eddy County, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on October 13, 1949.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

R. R. SPURRIER, SECRETARY

BEFORE THE OIL CONSERVATION  
COMMISSION OF THE STATE OF  
NEW MEXICO

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

CASE NO. 198  
ORDER NO. 846

THE APPLICATION OF AMERADA PETROLEUM CORPORATION FOR AN ORDER ESTABLISHING EIGHTY ACRE PRORATION UNITS; ESTABLISHING A UNIFORM PATTERN FOR THE SPACING AND DRILLING WITH ALLOWANCE FOR TOLERANCE FOR SURFACE OBSTRUCTIONS; AND FOR AN ORDER FIXING AND ESTABLISHING ALLOWABLES FOR WELLS DRILLED OR TO BE DRILLED IN THE HIGHTOWER POOL TO THE COMMON SOURCE OF SUPPLY DISCOVERED IN AMERADA-STATE BTB NO. 1 WELL (DEVONIAN), LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 10:00 o'clock A.M., November 1, 1949 at Santa Fe, New Mexico, before the Oil Conservation Commission of the State of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 18th day of November, 1949, the Commission having before it for consideration the testimony adduced at the hearing of said cause and being fully advised in the premises.

FINDS:

1. That the Applicant, Amerada Petroleum Corporation has drilled and completed Amerada-State BTB No. 1 well located in the approximate center of NW/4 NW/4 of Section 26, Township 12 south, Range 33 east, N.M.P.M. and discovered a new common source of supply at the approximate depth of 10,090-10,200 ft., in the Devonian formation.
2. That the initial production from said well was 781 barrels of 56.9 gravity pipe line oil in 19 3/4 hours through 1/4 in. tubing choke from 10,155 ft.-10,165 ft. and with a gas-oil ratio of 280.
3. That the probable area has been delineated and recommended by the Nomenclature Committee and approved by the Commission for Devonian production as discovered by the above described well as follows:

All of sections, 22, 23, 26 and 27 in Township 12 south,  
Range 33 east, N.M.P.M.
4. That Gulf Oil Company is now drilling a well in SE/4 SE/4 section 22, and Amerada Petroleum Corporation is also drilling a well in the NW/4 SW/4 of section 26, all in Township 12 south, Range 33 east; both being at a present depth of approximately 9000 ft. and projected to the Devonian pay discovered in Amerada-State BTB No. 1 within the "Hightower" pool as lately designated, and described hereinabove.
5. That this order shall cover all wells now or hereafter drilled to the common source of supply (Devonian) to which the discovery well, Amerada



-State BTB No. 1 was drilled and is producing from within the pool described in paragraph 3 above, so as to insure a proper and uniform spacing, developing and producing plan for all wells drilled to the common source of supply.

6. That recognizing the conditions indicated by the discovery well, the Commission finds it advisable to amend and supplement its present rules, regulations and orders to properly cover the matter of lease development and well spacing now or hereafter drilled to, into and producing from the Hightower-Devonian formation encountered at a depth between 10,090 ft. and 10,200 ft. in the "Hightower" pool.

7. That the present rules and regulations of the Commission are adequate and sufficient to properly cover the drilling, equipping and operation of wells to the newly discovered common source of supply as found in Amerada-State BTB No. 1 well, and therefore, the general statewide rules and the special rules should remain in full force and effect except as hereinafter modified, amended or superseded.

8. That the "Hightower" Devonian formation as found in the Amerada-State BTB No. 1 well, is apparently a common source of supply which should be drilled and developed under a special program, other than that ordinarily required in compliance with existing Commission regulations particularly Order No. 637 effective March 1, 1946 with respect to proration units, spacing and assignment of allowables due to the depth of such wells, drilling time required, the high costs attached thereto, in addition to the hazards of deep exploration.

9. That the best interest of the State of New Mexico seems to require encouragement of operators in the exploration and development of the States' natural resources, particularly oil and gas, by the authorization of a reasonable, proper and equitable spacing and development pattern for the "Hightower" pool.

IT IS THEREFORE ORDERED:

1. That the Amerada-State BTB No. 1 well located in the center of NW/4 NW/4 of section 26, Township 12 south, Range 33 east, N.M.P.M. is producing oil from the Devonian formation, a newly discovered common source of supply not heretofore discovered and produced in New Mexico, and that the probable area for such production is as follows:

All of sections 22, 23, 26 and 27, in Township 12 south,  
Range 33 east, N.M.P.M. (Hightower pool) Lea County,  
New Mexico.

2. That it is the intent of this order to cover all of the Devonian formation common source of supply within the area designated herein, and upon any regular additions to the Hightower pool which may from time to time be made, and that any well within said designated area to the same common source of supply shall be drilled on the pattern herein provided,

3. That 80-acre spacing and drilling units be established as hereinafter provided, for the production of oil and gas from the Devonian formation underlying the area as hereinabove described.

4. That each governmental quarter section be divided into two equal rectangular spacing units by a line drawn north-south through such quarter section, and with wells to be drilled in the center of the northwest and southeast forty acre tracts of each such spacing unit, with a tolerance of not in excess of 150 ft. provided, however, that the units within may be changed by agreement of operators within any quarter section of the designated area upon proper showing before the Commission.

5. That allowable shall be assigned on the basis of proration units as herein established, and any proration unit of less than the normal one-half of a governmental quarter section as the result of an exception granted by the Commission after notice and hearing, shall be assigned an allowable in

proportion that the acreage thereof bears to the 80-acre spacing unit - or one-half of a quarter section.

6. That the daily oil allowable for an 80-acre unit provided for herein shall be assigned to the Amerada-State BTB No. 1 well, the discovery well, located in the approximate center of NW/4 NW/4 of section 26, Township 12 south, Range 33 east, N.M.P.M., Lea County, New Mexico and to all other wells hereafter drilled and produced in accordance with the provisions of this order based upon the proportional factor of 4.67 times the regular top allowable until such time as the Commission may issue such further and additional orders as may be deemed necessary herein.

7. All rules, regulations and orders heretofore issued by this Commission which may conflict herewith are superceded, only with respect to the Devonian formation production at the approximate depth of 10,090 ft.-10,200 ft. in the Hightower pool.

8. That this Order shall be in full force and effect from and after December 1, 1949.

9. That the Commission retains jurisdiction of this case for the purpose of issuing such further and additional orders as may seem necessary to meet changed conditions, preclude inequities and preserve correlative rights; all upon the motion of the Commission or upon the petition of any interested operator upon public hearing, after notice as provided by law.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, MEMBER

  
R. R. SPURRIER, SECRETARY

December 8, 1949

Mr. Glenn Staley  
Lea County Operators Committee  
Drawer I  
Hobbs, New Mexico

Dear Mr. Staley:

We are enclosing herewith, signed copy of Case No. 198, Order No. 846,  
issued by the Oil Conservation Commission in connection with the hearing  
held on November 1, 1949.

Very truly yours,  
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

R. R. Spurrier  
Secretary-Director

RRS:bw  
encl.

December 3, 1949

Mr. C. V. Millikan  
Anadarko Petroleum Corporation  
P. O. Box 2040  
Tulsa 2, Oklahoma

Dear Mr. Millikan:

We enclose herewith, signed copy of Case No. 198, Order No. 846, issued by the Oil Conservation Commission, in connection with the hearing held in Santa Fe, New Mexico, on November 1, 1949.

Very truly yours,

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

R. R. Spurrier  
Secretary-Director

RRS:lw  
encls.

NOTICE FOR PUBLICATION  
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives public notice pursuant to law of a public hearing to be held November 1, 1949, beginning at 10:00 o'clock A.M. of that day in the City of Santa Fe, New Mexico, in the Senate Chambers.

STATE OF NEW MEXICO TO:

All named parties in the following cases,  
and notice to the public:

Case 189

In the matter of the application of the Oil Conservation Commission upon its own motion to revise the rules and regulations of the Commission to conform with the provisions of Chapter 168 of the New Mexico Laws of 1949, and to consider Committee recommendation and take testimony in the premises. This is a readvertisement.

Case 197

In the matter of the application of Jones and Watkins applicants, for an order approving an unorthodox location for a well 1205 feet west of the east line and 740 feet south of the north line (NE/4 NE/4) of Section 10, Township 19 South, Range 29 East, N.M.P.M., Turkey Track Pool, Eddy County, New Mexico.

Case 198

In the matter of the application of Amerada Petroleum Corporation for an order establishing proration units and uniform spacing of wells for the common source of supply discovered in Amerada-State BTB #1 well, in NW/4 NW/4 of Section 26, Township 12 South, Range 33 East, N.M.P.M., Bagley Area, Lea County, New Mexico.

Case 199

In the matter of the application of Roland Rich Woolley for an order approving an unorthodox location 1345 feet east of the west line and 1295 feet south of the north line of Section 3, Township 17 South, Range 30 East, N.M.P.M., Square Lake Pool, Eddy County, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on October 13, 1949.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*R. R. Spurr*  
R. R. SPURRIER, SECRETARY

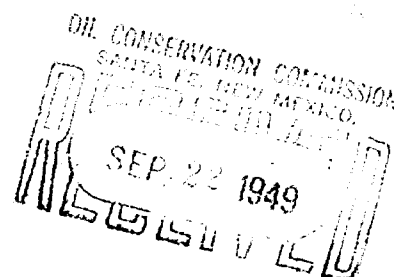
GENERAL OFFICES  
120 BROADWAY NEW YORK

AMERADA PETROLEUM CORPORATION

BEACON BUILDING  
P.O. BOX 2040

TULSA 2, OKLA.

September 20, 1949



Mr. R. R. Spurrier, Secretary  
New Mexico Conservation Commission  
State Capitol Building  
Santa Fe, New Mexico

Dear Mr. Spurrier:

Enclosed herewith in quadruplet is Application for spacing and drilling units in the area of our State BT "B" #1 in Section 26-12S-33E, Lea County, New Mexico.

Copies of this application are also being mailed to Mr. Foster Morrell of the United States Geological Survey, Mr. Glenn Staley of the Lea County Operators' Committee, Gulf Oil Corporation, Continental Oil Company, Magnolia Petroleum Company, The Texas Company, Sinclair Oil Company and Mr. J. K. Wadley, who own leases in or adjacent to the area for which we desire an order covering spacing and drilling units.

We trust that you will set this for hearing at your earliest convenient date and arrange for public notices in accordance with the law. Kindly advise us of your action concerning this matter.

Very truly yours,

AMERADA PETROLEUM CORPORATION

CVM/mhp  
cc: Messrs. Foster Morrell  
Glenn Staley  
R. S. Christie

By: *[Signature]*

## BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
 AMERADA PETROLEUM CORPORATION FOR THE  
 ESTABLISHMENT OF PRORATION UNITS AND  
 UNIFORM SPACING OF WELLS FOR THE  
 COMMON SOURCE OF SUPPLY DISCOVERED IN  
 AMERADA-STATE BTB No. 1 WELL,  
 NW/4 NW/4 of SECTION 26, TOWNSHIP 12  
 SOUTH, RANGE 33 EAST,  
 LEA COUNTY, NEW MEXICO.

CAUSE NO. \_\_\_\_\_

ORDER NO. \_\_\_\_\_

A P P L I C A T I O N

COMES, NOW, Amerada Petroleum Corporation, Tulsa,  
 Oklahoma, and alleges and states:

1. That applicant has drilled and completed a well known as "State BTB No. 1", located in the center of NW/4 NW/4 of Section 26-12S-33E, Lea County, New Mexico, and discovered a new common source of supply found in said well at the approximate depth of 10,090 feet to 10,200 feet.

2. That the probable productive limits of said new common source of supply includes at least the following described area, to wit:

All of Sections 22, 23, 26 and 27, in  
 Township 12 South, Range 33 East.

3. That in addition to the discovery well referred to above the following wells are now being drilled to said common source of supply within the area described above, to wit:

- (a) Amerada No. 1 Roach, located in the center of NW/4 SW/4 of Section 26-12S-33E,
- (b) Gulf Oil Corporation State NMMI No. 1, located in the center of SE/4 SE/4 of Section 22-12S-33E.

4. That in order to bring about the orderly and proper development of said common source of supply, prevent waste and to avoid the drilling of unnecessary wells, and to secure the greatest ultimate recovery therefrom and to protect the correlative rights of the interested parties therein, it is necessary and proper for the Commission to enter its order providing for proration units of eighty (80) acres each, such being the area

which may be efficiently and economically drained by one well, and to provide for the uniform spacing of said wells in the center of the Northwest and Southeast forty-acre tracts of each quarter section with a tolerance of 150 feet to avoid surface obstructions.

5. That the order herein prayed for should cover all of the common source of supply discovered in the producing formation of Amerada-State BTB No. 1 Well and any well drilled to said common source of supply should be drilled on the spacing pattern herein requested.

6. A plat showing the area described above and the location of all wells drilled or drilling in said area is attached hereto and marked "Exhibit A" and made a part hereof.

WHEREFORE, applicant respectfully requests that the Commission set this application for public hearing at a time and place to be fixed by the Commission, and due and proper notice be given as required by law, and that at the conclusion of said hearing the Commission make and enter an order determining and defining the probable productive limits of the common source of supply referred to above to include an area not less than all of Sections 22, 23, 26 and 27, Township 12 South, Range 33 East, naming said pool or common source of supply, establish proration units of eighty (80) acres each and provide for a uniform spacing of wells to be drilled therein, designating the location of said wells as the center of the Northwest and Southeast forty-acre tracts of each quarter section with a tolerance of 150 feet in any direction from said prescribed location to avoid surface obstructions, and to further provide that said order shall apply to all of said common source of supply.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 1949.

*Harry D. Page*

Harry D. Page

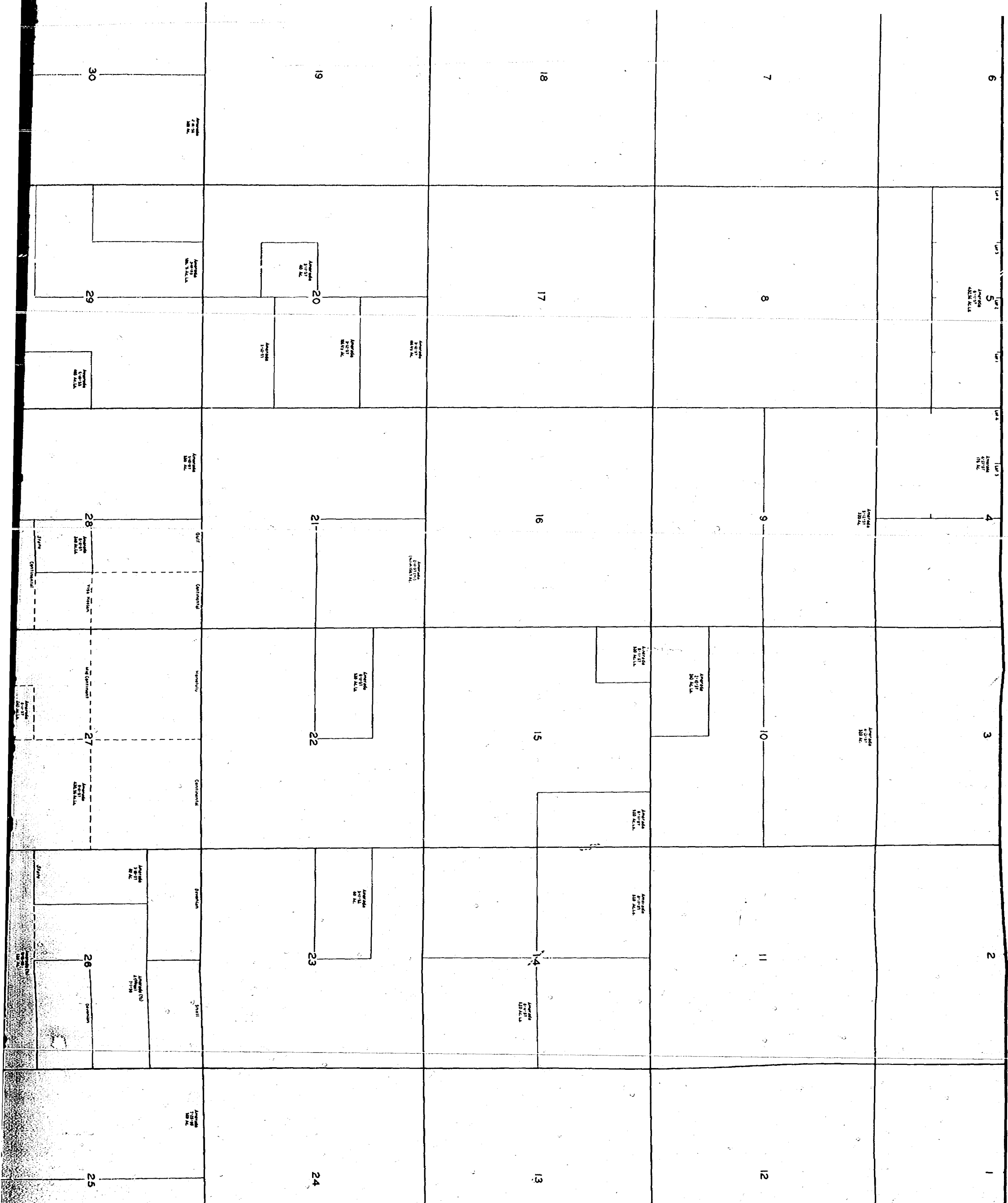
*Booth Kellough*

Booth Kellough

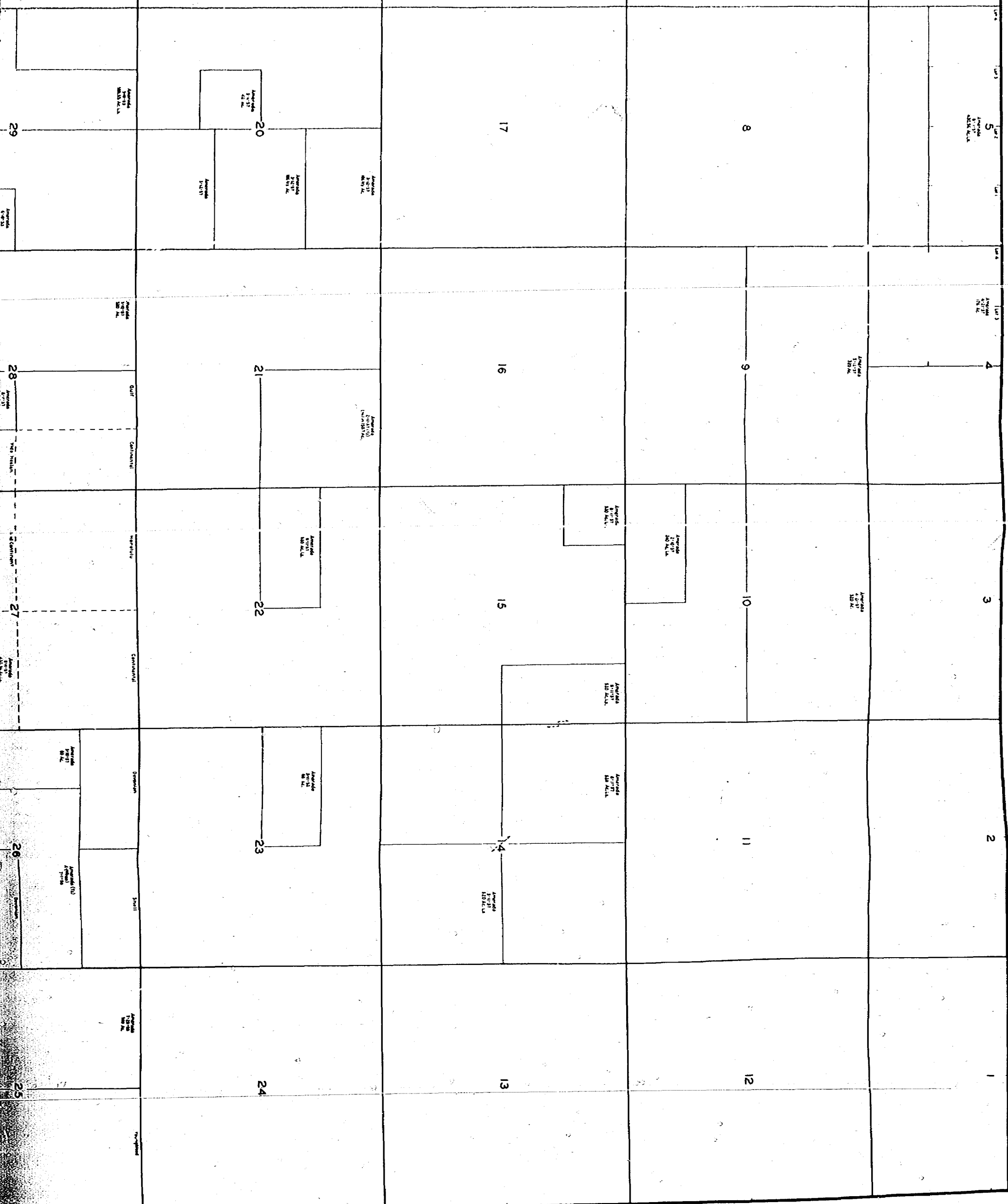
Attorneys for  
Amerada Petroleum Corporation.

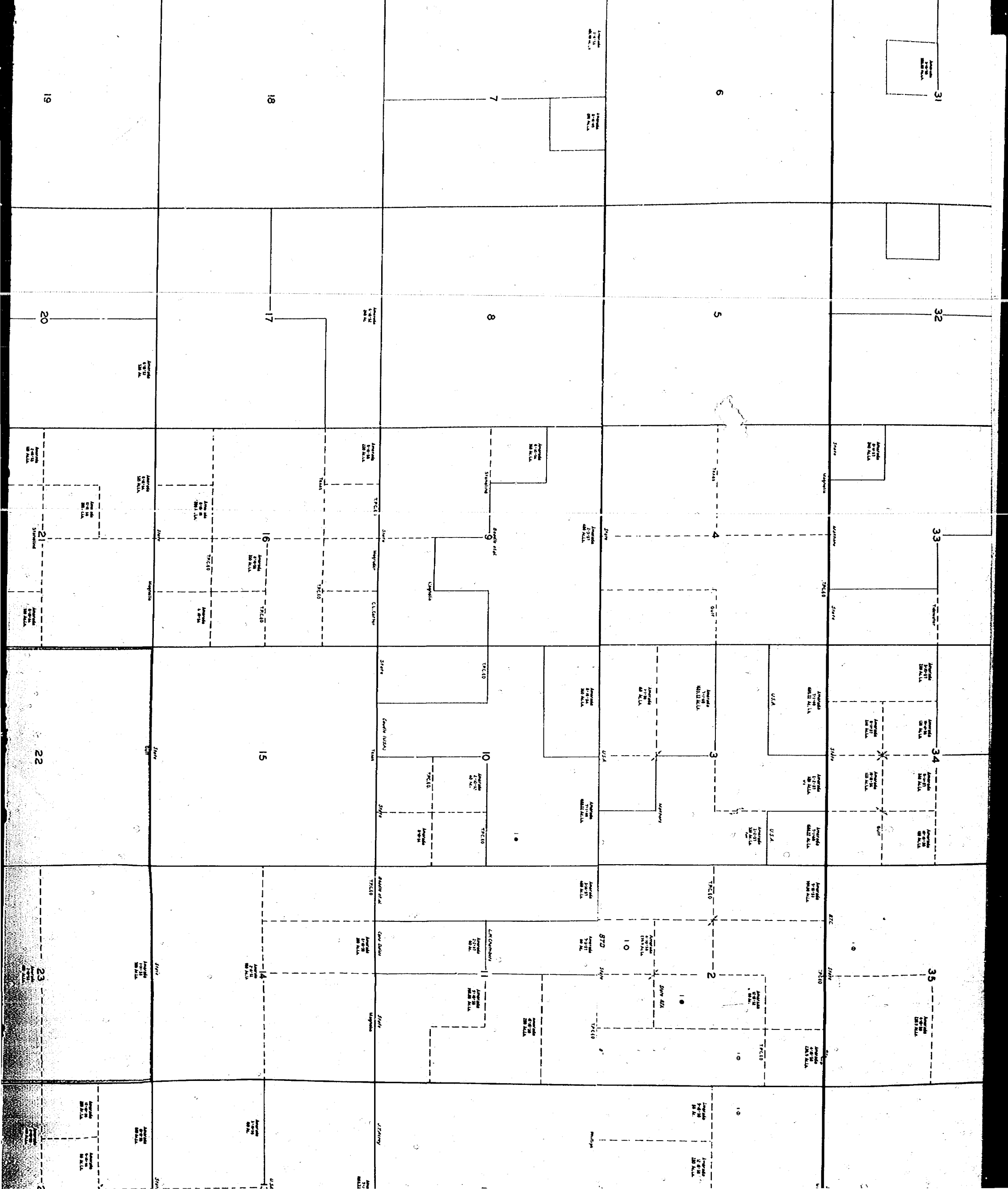


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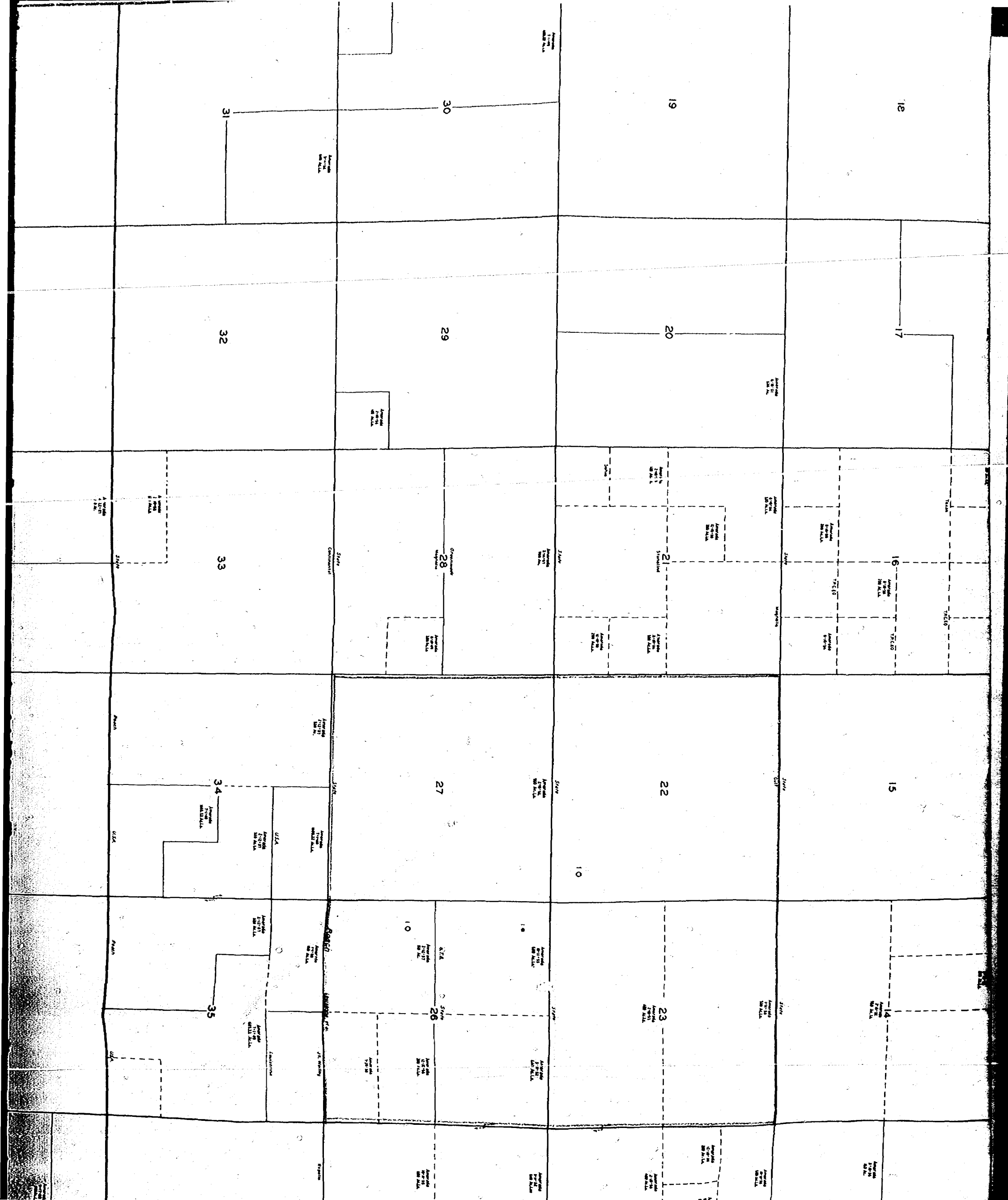


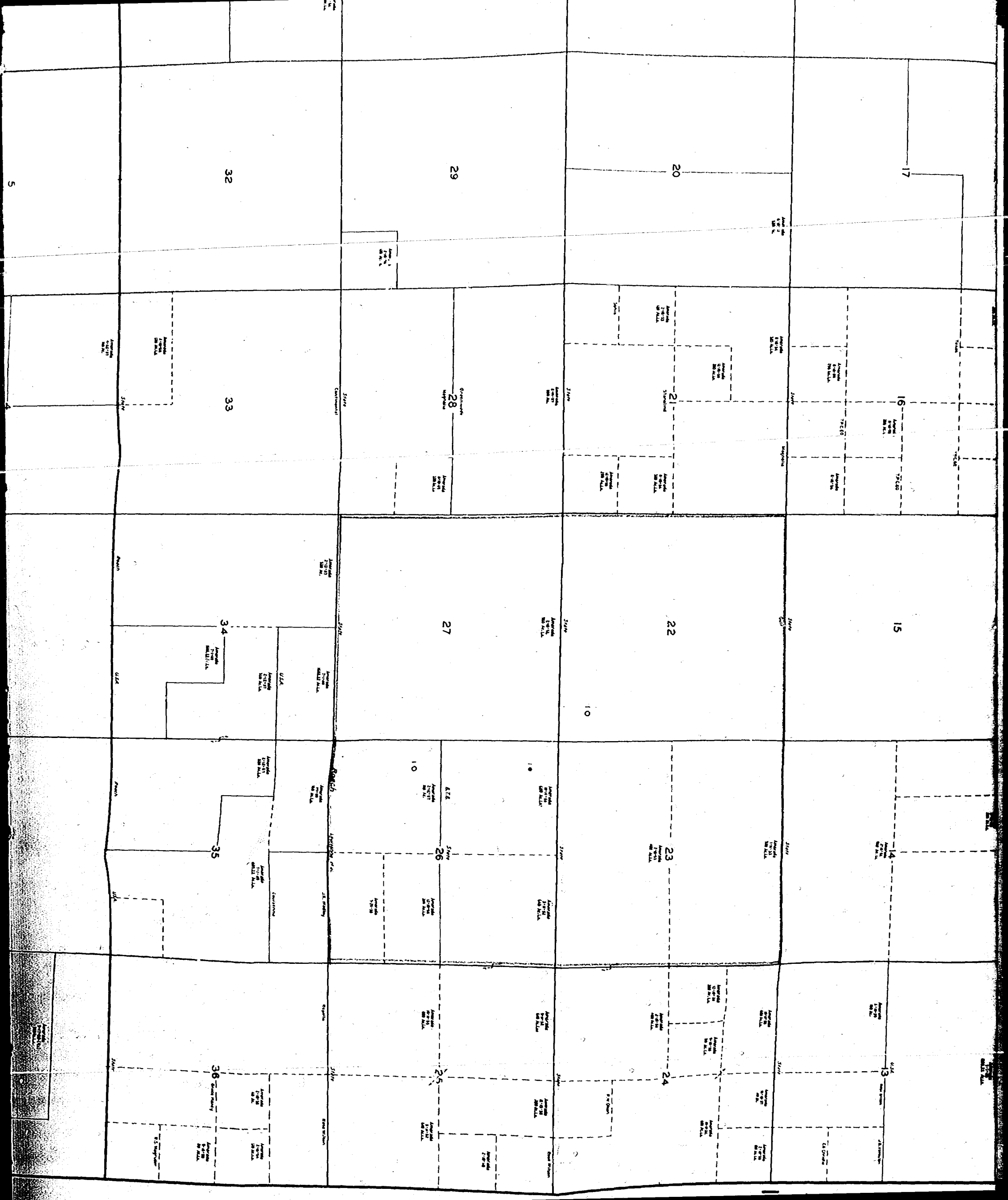
# R 33 E













R 33 E

BAGLEY - HIGHTOWER  
PROSPECTS  
LEA COUNTY, NEW MEXICO  
T. 11-13 S. R. 33 E.

SCALE: 1 INCH = 8000 FEET

REVISOR:  
TRACING:  
NEGATIVE:  
POSITIVE:

MILE