

Case No.

1473

Application, Transcript,  
Small Exhibits, Etc.

CASE 1473: SOUTHEAST NEW MEXICO  
NOMENCLATURE

XXXX 634

July 11, 1958

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
EXHIBIT NO. 3  
CASE 1473-2

Re: Your Federal Lease  
(Formerly Rowan Oil Company Operator)  
South Sawyer San Andres Field,  
Section 33, Township 9 South,  
Range 38 East  
Lea County, New Mexico

Texas Pacific Coal and Oil Company  
P. O. Box 2110  
Ft. Worth, Texas

Attention: Mr. E. T. Adair

Gentlemen:

This letter has reference to telephone conversation with your Mr. Stanley Davis on date of July 1, 1958, at which time your company took over the operation of the above-captioned lease, and refers specifically to that portion of our conversation relative to the field designation of such lease.

As discussed verbally with Mr. Davis, when initial production was developed on subject lease in the month of March 1958, our company was requested to purchase the production therefrom as, at that time, we were buying the production from the adjacent Buckshot field. Subsequent to our purchase and handling of production in the Buckshot field, final sale arrangement was under contract agreement with the Atlantic Refining Company which, under its terms, specified production from the Buckshot field. We were able to make market arrangement for the Rowan-Federal Lease with Atlantic after indicating to them that Cactus was the nearest logical purchaser and that the lease was adjacent to the Buckshot field production on the Texas side and in all probability was producing from a common reservoir and possibly would be designated as Buckshot field by the New Mexico Oil Conservation Commission, although at that time it carried an unclassified category.

In May of 1958 subsequent to the assignment by the New Mexico Oil Conservation Commission of the South Sawyer San Andres Field classification for the Rowan-Federal Lease, we found it necessary to temporarily cease the

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purchase of production from such lease as it was in definite contradiction to our sale arrangement to Atlantic specifying Buckshot crude. On May 19, 1958, we did write the Rowan Oil Company a letter pointing out this difficulty and suggesting that possibly this matter could be resolved by requesting that this lease be classified as Buckshot field in New Mexico. We understand that the Rowan Oil Company did pursue such a request with the Oil Conservation Commission in New Mexico and it is the purpose of this letter to officially notify all parties concerned that after our discontinuing the purchase of this production in May we were able to get the Atlantic Refining Company to review this situation and they did agree to Cactus' resuming purchase of this production with its existing classification in the South Sawyer San Andres Field, as it was possibly producing from a common reservoir, and included it as a part of our Buckshot sale arrangement. We did resume the purchase of production from this lease shortly after the first of June 1958.

We therefore wish to go on record establishing the fact that the South Sawyer San Andres Field designation for subject lease is no longer a factor in our purchase of this production.

Yours very truly,

CACTUS PETROLEUM, INC.

ORIGINAL SIGNED BY  
SAM F. WEIR

Sam F. Weir

Copy to:

Oil Conservation Commission  
State of New Mexico  
Santa Fe, New Mexico  
Attn: Mr. Pete Porter

Oil Conservation Commission  
State of New Mexico  
Hobbs, New Mexico  
Attn: Mr. Robert Montgomery

Rowan Oil Company  
P. O. Box 1873  
Midland, Texas  
Attn: Mr. J. T. Klingler

Western Drilling Company  
Longview, Texas  
c/o Mr. Ralph Cooley ✓  
P. O. Box 4575  
Midland, Texas

SFW/djr

**ILLEGIBLE**

CORE LABORATORIES, INC.


 ROWAN OIL COMPANY  
 P. O. Drawer 12247  
 Fort Worth, 16, Texas

Petroleum Reservoir Engineering

## EXHIBIT 4

COMPANY ROWAN OIL COMPANY

WELL FEDERAL NO. 1

FIELD WILDCAT

COUNTY LEA

LOCATION 660 FS &amp; EL SEC 33-T9S-R38E

DATE ON 12-31-57

DATE OFF 1-6-58

FORMATION SAN ANDRES

STATE NEW MEXICO DRUG. FLD. WATER BASE MUD CORES DIAMOND 3 1/2"

REMARKS SAMPLED AS DIRECTED BY CLIENT

FILE NO. WP-3-980 WC

ENGRS. NEFF

ELEV. 3924' KB

## Special Analysis

## CORE REPORT

SAND

LIMESTONE

CONGLOMERATE

CHERT

SHALE

DOLOMITE

ANHYDRITE

F-FRACTURED

PP-PINPOINT POROSITY

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. All errors and omissions excepted. Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

PERMEABILITY, Maximum

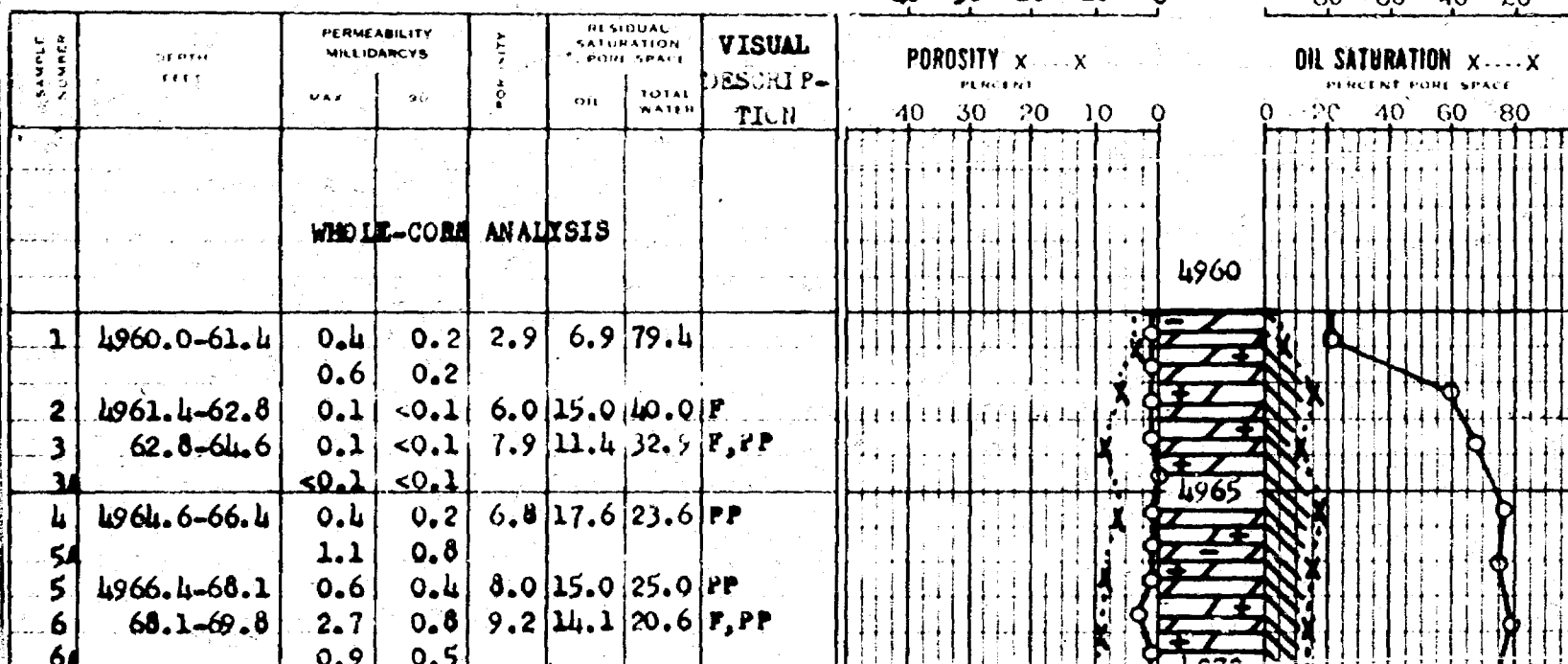
MILLIDARCY

40 30 20 10 0

TOTAL WATER

PERCENT PORE SPACE

80 60 40 20 0



7	4969.8-71.5	0.3	0.2	10.4	14.4	27.0	
7A		0.2	0.2				
8	4971.5-73.3	0.2	0.1	9.4	17.0	28.8	F, PP
9A		<0.1	<0.1				
9	4973.3-75.0	0.9	0.9	6.9	11.6	22.0	PP
10	75.0-76.8	0.1	0.1	9.7	15.5	19.6	PP
10A		0.7	0.4				
11	4976.8-78.5	2.8	2.2	8.1	13.6	26.0	F, PP
12A		<0.1	<0.1				
12	4978.5-80.1	2.7	2.4	5.1	15.7	37.4	F, PP
13	80.1-81.8	0.2	0.1	4.9	8.2	42.9	F, PP
13A		0.9	0.7				
14	4981.8-83.4	1.8	1.5	9.0	16.7	31.1	F, PP
14A		2.8	2.4				
15	4983.4-85.0	0.5	0.2	5.0	12.0	38.0	F, PP
16	85.0-86.7	<0.1	<0.1	4.9	12.2	34.8	PP
16A		0.1	<0.1				
17	4986.7-88.3	4.1	3.2	11.3	12.4	31.0	PP
18A		1.2	0.8				
18	4988.3-90.0	0.6	0.6	11.9	16.7	27.7	PP
19	90.0-91.7	0.1	<0.1	4.6	8.7	45.6	F, PP
19A		0.3	0.1				
20	4991.7-92.7	7.1	3.9	5.2	13.4	30.7	F, PP
21	92.7-94.0	4.1	1.5	12.5	9.6	30.4	PP
22	94.0-95.8	1.0	0.8	2.0	10.0	75.0	F, PP
22A		0.7	0.5				
23	4995.8-97.7	0.2	<0.1	2.4	12.5	58.4	F, PP
23A		0.4	0.1				
24	4997.7-99.6	1.2	0.2	7.6	17.1	30.3	F, PP
24A		0.8	0.3				
25	4999.6-01.3	1.0	0.9	10.1	21.8	26.7	F
26A		1.0	0.7				
26	5001.3-03.0	1.0	0.8	8.9	16.8	30.3	F, PP
27	03.0-04.5	0.6	0.5	7.9	16.5	35.4	F, PP
28A		1.2	1.2				
28	5004.5-06.0	1.1	0.9	9.6	11.5	29.2	F, PP
29	06.0-07.7	0.4	0.2	9.5	13.7	30.5	F, PP
29A		0.6	0.3				
30	5007.7-09.5	1.0	0.4	10.3	12.6	32.0	F, PP
31A		0.3	0.1				
31	5009.5-11.0	<0.1	<0.1	7.3	12.3	41.0	F, PP
32	11.0-12.8	0.1	<0.1	6.0	11.7	60.0	V, F
32A		<0.1	<0.1				
33	5012.8-14.4	0.8	0.5	9.6	15.6	31.2	F, PP
34A		0.9	0.9				
34	5014.4-15.8	0.7	0.6	11.9	16.8	22.6	SF, PP
35	15.8-17.5	5.4	3.6	7.1	16.9	33.8	F, PP
36A		0.7	0.6				
36	5017.5-19.0	0.7	0.5	9.1	14.3	25.7	SF, PP
37	19.0-20.3	0.7	0.5	10.3	18.4	30.0	SF, PP
38A		<0.1	<0.1				
38	5020.3-22.0	<0.1	<0.1	1.0	TR	80.0	SF, PP
39	22.0-23.8	<0.1	<0.1	2.0	5.0	60.0	F, PP
39A		<0.1	<0.1				
40	5023.8-25.4	<0.1	<0.1	1.4	TR	78.5	F, PP
41A		<0.1	<0.1				
41	5025.4-27.2	<0.1	<0.1	2.3	13.0	47.7	PP, PP
42	27.2-28.5	<0.1	<0.1	1.7	11.8	70.5	F
43A		<0.1	<0.1				
43	5028.5-30.0	<0.1	<0.1	2.1	9.5	52.5	F, PP

TOO BROKEN FOR ANALYSIS

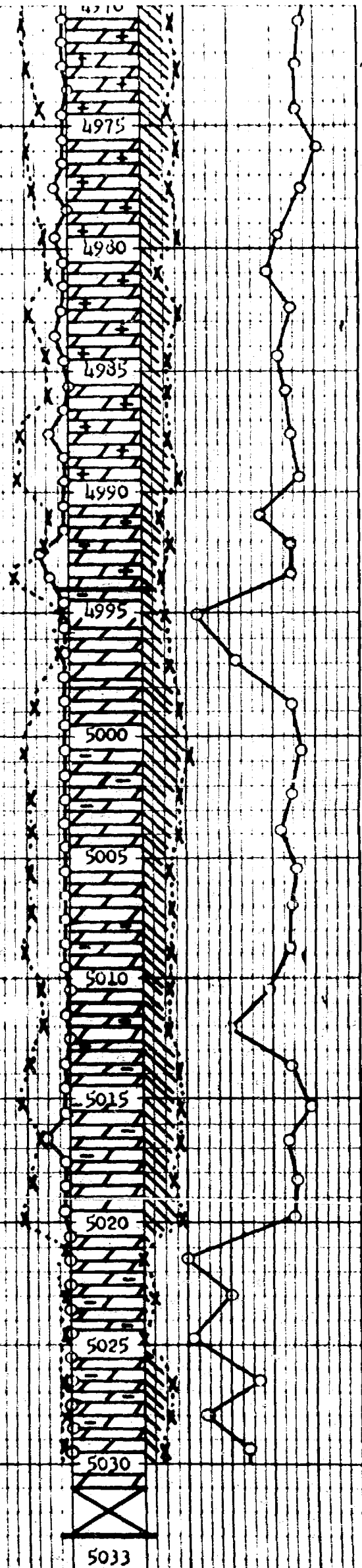


Exhibit 5



CACTUS

Petroleum, Inc.

W. D. YORK  
PRESIDENT  
ED. S. BROOKS  
VICE PRESIDENT  
T. D. JENKINS  
VICE PRESIDENT  
C. J. RUTTEN  
V. PRES. & TREAS.

P. O. BOX 1282 634

MIDLAND, TEXAS

TELEPHONE MU 2-0801

May 19, 1958

Re: Rowan Oil Company,  
Federal Lease  
South Sawyer San Andres Field  
Lea County, New Mexico

Rowan Oil Company  
P. O. Box 1873  
Midland, Texas

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
*Rowan* EXHIBIT No. 5  
CASE 1473-2

Attention: Mr. J. T. Klingler

Gentlemen:

This will confirm our telephone conversation of May 16, 1958 regarding the captioned lease.

You will please recall that at the time the number one well on this property was completed, we advised that we anticipated no difficulty in arranging a market for the oil if the well was classified in the Buckshot (4950' Sand) Field. We have purchased the oil during the time the well was carried as an Undesignated location; however, the lease has now been placed in the South Sawyer San Andres Field and it is necessary that we discontinue purchasing this oil.

Our market outlet in this area is to The Atlantic Refining Company and said Company does not desire to purchase oil from the South Sawyer San Andres Field.

Since this well is producing like crude to the Buckshot (4950' Sand) Field and is located immediately west across the Texas-New Mexico State line, it might be that you could prevail upon the New Mexico Oil Conservation Commission to re-classify this well in the Buckshot Field, and if so, we will be in position to resume our purchases.

Yours very truly,

CACTUS PETROLEUM, INC.

Norvin R. Griffin

NRG:bg

cc: Mr. Sam F. Weir

ILLEGIBLE

BEFORE THE AIR CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
July 16, 1958

IN THE MATTER OF:

CASE NO. 1473

DEARNLEY, MEIER & ASSOCIATES  
INCORPORATED  
GENERAL LAW REPORTERS  
ALBUQUERQUE - SANTA FE  
3-6691 2-2211



BEFORE THE OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
July 16, 1955

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IN THE MATTER OF:

Southeastern New Mexico Nomenclature case.

CASE NO.  
1473.

(1) To reconsider the designation and  
limits of the South Sawyer-San Andres  
Pool.  
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Before: Murray Morgan  
A. L. Porter

MR. PORTER: We will consider next case 1473, which is a  
paragraph of a nomenclature case which was continued from last  
month:

MR. PAYNE: To reconsider the designation and limits of the  
South Sawyer-San Andres Pool.

MR. CHRISTY: The commission will remember last month that  
Rowan Drilling Company put on testimony for the changing of the  
designation from South Sawyer to the Buckshot Pool. I'm Sim Christy  
of Hervery, Dow and Hinkle, Roswell, New Mexico, representing  
Western Drilling Company of Longview, who wishes to present evidence  
in opposition to the application.

DIRECT EXAMINATION

BY MR. CHRISTY:

Q Would you please state your name, address and occupation?

A My name is Ralph S. Cooley, Box 4575, Midland.

Q What is your occupation, Mr. Cooley?

A Geologist.

Q Have you ever testified before this commission previously?

A No.

Q Would you tell us briefly your school and education in the geological field?

A I'm a graduate of the College of Wooster, Wooster, Ohio, B.S. Degree.

Q What year?

A 1934. University of Pittsburg, Masters Degree Geology, 1935.

Q What experience have you had in geology?

A Since graduation from Pitt, I was employed in Bradford, Pennsylvania, was there for about a year, then came to Midland in 1936 and I spent all of my time there, with the exception of the war years, engaged in the oil business.

Q Are you familiar with the application in this case and the lands involved, which are located generally in Township Nine South, Range Thirty-seven, East N.M. P. M., Lea County and the well and well histories in the general area of that land?

A I am.

MR. CHRISTY: Has the commission any questions concerning the witness's qualifications?

*Reuter*  
MR. PAYNE: No, sir, his qualifications are acceptable.

Q Mr. Cooley, do you own any interest in wells or mineral interest in the general vicinity of the lands?

A I do.

Q What, briefly, are they?

A The north offset tract to the Rowan Lease, I own an interest in a well there and adjoining acreage. That well is Western Drilling Company of Longview, No. 1 Great Western Federal, also two miles to the west, the Western Drilling Company of Longview No. 1 Atlantic Federal. In addition to that some lease holds scattered through that area.

Q Have you heard the prior testimony in support of this application?

A Yes.

Q And reviewed the transcripts of those proceedings?

A I have.

Q In your opinion what matters might the commission consider in determining the advisability of changing the South Sawyer to the Buckshot Pool?

A Well, it's customary that they would consider bottomhole pressure data, the proximity of wells, they would probably consider structural data, gravities, core analyses, and some type of correlation data.

Q Such as cross section?

A Such as would be shown in cross sections, yes.

Q Of the six items, the commission might consider, which do you deem the most important and why?

A Well, I believe that the most important thing to consider would be bottomhole pressure data. By that I mean interference tests by use of bottomhole pressure data. Then, I also believe, naturally, that proximity would have a great deal of bearing.

Q By proximity, approximately what distance are you speaking of?

A Oh, I would say within the limits of a half mile, something like that.

Q Which one, or more, of these six items the commission might consider, would you consider or deem a conclusive test or reasonably conclusive?

A Interference test with bottomhole pressure data.

Q Any others?

A No, I don't think anything else would be conclusive considered in itself.

Q Which one, or more, of these items have been previously testified concerning, in this hearing?

A There has been no testimony presented in relation to bottomhole pressure data and there has been, of course, if we call it, proximity, some data presented in a cross section.

Q Which was approximately what proximity?

A The closest wells tied together in that cross section were fifty-seven hundred feet.

Q I believe the prior testimony has covered the questions of structure, cross section, core analysis and gravity?

A Correct.

Q Why is the consideration of only these items insufficient for a reasonably conclusive determination, if that be your conclusion?

A Well, taking them one at a time, the structural Exhibit --

Q I believe that was Rowan's Exhibit 1?

A Yes.

Q All right.

A If you are going to use structural data, you would presume that you would have rather uniform conditions at a common structural level or structural datum. In the case of a point here, we find a great many discrepancies in that. We find dry holes on the same producing contour as producing wells, we find the characteristics of the production in producing wells varies greatly. By that I would mean a gas well at the same structural position as an oil well. We find wells low structural, of low structural, completed as flowing wells with very little water we find wells relatively higher structural, completed with considerable water, on the pump. There doesn't seem to be any uniformity as to structural position in this area, as yet demonstrated.

Q How about the cross sections, which I believe were Rowan's Exhibit 2?

A Well, the thing that we must consider in relation to this cross section is that it is to demonstrate that we have a common producing zone or horizon. In this Exhibit three wells are put in cross section and I note, for example, that in the first well the top of porosity, top of pay zone is seven hundred twenty-three feet below the top of the San Andres formation, the next well in the cross section, top of porosity is seven hundred thirty-two feet, top of pay, likewise, the third well on the cross section, top of porosity and top of pay is seven hundred two feet. Within that cross section itself is some thirty feet of tolerance and actually we have other wells where the porosity is lower than that and as much as seven hundred sixty feet and the seven hundred two feet interval is about the least of all. Then, we also note that you could carry this cross section on all the way across Cochran County through the Slaughter field into Hockley County, the level land, Slaughter field portion over there, and you could conceivably make a cross section of some, I'll say some thirty miles, and you would have a common producing horizon at these intervals all the way across this broad expanse. Therefore, it's rather difficult for me to say that just because it happens to be the same producing horizon that it is a common reservoir.

Q How about the core analysis which were testified to on matters of permeability, I believe, water saturation?

A The core analysis data in the previous testimony, I believe

came from the hearing before the Texas Railroad Commission. There were some core analysis data presented there. That would have been sometime prior to March of 1957. Also Rowan No. 1 Federal would also be used in the test previously presented. We have taken thirteen wells--

MR. CHRISTY: Mark Western's Exhibit No. 1.

( Marked Western's Exhibit No. 1  
for identification.)

Q I believe you are now referring to Western's Exhibit No. 1?

A Correct.

Q Please proceed.

A We have taken some thirteen wells, five of which are in the vicinity of Township Nine, Range Thirty-eight East, or what I would call the Sawyer area, the remaining eight are in the Buckshot Field and they are just selected at random. We find, for example, that the permeabilities will range from 1.1 to 7.7 millidarcies. Actually that 1.1, the bottom of the scale, happens to be the Rowan well, so that with all this variation in permeability from one to seven millidarcies, there again, we can't say that it's a characteristic that is common all the way across the Buckshot and all the way through the Sawyer area.

Q How about the gravities of the oils in the two pools?

A Well, in the same Exhibit, our Exhibit 1, we have tabulated from the records of the Texas Railroad Commission, its potential form, I forget what number that is, but all of this

data on the wells in Buckshot Field come from those forms. We find, for example, in relation to gravity that the gravities range from 24.6 to 34 degrees. In other words, there's almost a ten degree spread within the Buckshot Field itself. The gravities which we have observed in the subject South Sawyer area, we have 1,28 and we have 1--that's 32, so you see it's a little difficult for me to say that gravities can be considered diagnostic in any way as to a common reservoir.

Q Mr. Cooley, just a moment ago you mentioned these cross sections and the fact that the various depths might extend through one or more counties. Have you any examples of that nature?

A Yes, I do. I have a log here some place which is a well eleven miles east of the Decalb No. 1 Stanofor, which incidentally is the second well of the Rowan cross section.

MR. CHRISTY: Mark Exhibit 2.

(Marked Western's Exhibit No. 2  
for identification.)

Q For the record, I believe you are testifying now concerning Western's Exhibit 2?

A Correct.

Q Please proceed.

A This well is Great Western Drilling Company Starnes No. 1-23, it is located 660 from the north and east of the southwest quarter of Section twenty-three. Harrison and Brown



surveyed it. As previously stated it is some eleven miles over to it, there are numerous dry holes and between the Buckshot Field and this well there are also a number of producers. The interval from the top of the San Andres to the top of the porosity is seven hundred forty-two feet. That is, that interval is commonly found also in the Buckshot area and as a matter of fact in the Sawyer area.

Q So, if you were using cross section as a test, that well could be in the same pool?

A Yes, in other words, I could include that in the cross section to go on across Cochran and Hockley Counties.

Q Based upon your knowledge of the wells in the subject area, have you reached a conclusion as to whether or not the Rowan well is in communication with the wells in the Buckshot Field and please state your reason for your answer?

A No, I haven't, merely because we don't have any conclusive evidence to indicate one way or the other.

Q Now, if we assume the correctness of all the prior testimony, which I believe was by Mr. Allen, would your answer be different?

A I don't question the accuracy or the correctness of the Exhibits presented. I do rather question the conclusions reached on the basis of them.

Q Now, at the first hearing mention was made of a certain pipeline, demand, and letter in that connection was put into

evidence as Rowan's Exhibit 5. Are you familiar with this phase of the present case?

A Yes, I am.

Q In what respect?

A Well, at the same time that that letter was issued, we received a similar letter. We had just completed the well Great Western Federal No. 1 and obviously we were faced with the same problem that Rowan was facing, namely, a cutoff on a pipeline connection, so, of course, we did follow the thing very thoroughly.

Q Now, have there been any new developments on this phase of the matter since the last hearing?

A Yes.

Q What are they, please?

(Marked Western's Exhibit No. 3  
for identification.)

A Under date of July 11, Cactus Petroleum Company addressed a letter to the Texas Pacific Coal and Oil.

Q Is that letter Western's Exhibit 3?

A Yes.

Q All right, please continue.

A Copies of this letter were sent to this commission here and in Hobbs and to ourselves. The reason that the letter is addressed to Texas Pacific Coal and Oil is because they, in the meantime, have acquired title to the Rowan property. In this letter, if I can just quote this one paragraph, that will suffice.

Q Is it the relevant, pertinent paragraph?

A Yes.

Q All right.

A It is as follows: "We therefore wish to go on record establishing the fact that the South Sawyer-San Andres Field designation for the subject lease is no longer a factor in our purchase of this production."

Q So that the moving matter bringing this case to a hearing originally as stated in the prior hearing, that is, the pipeline demands has gone out the window, so to speak?

A Correct.

MR. CHRISTY: That's all.

MR. PORTER: Anyone have any questions of Mr. Cooley?

MR. COOLEY: Mr. Cooley, will you please state what company, if any, you represent here today, for the record?

A I represent the Western Drilling Company of Longview.  
I represent my own company.

MR. COOLEY: Your own private company, as well?

A Correct.

MR. COOLEY: Thank you.

MR. PORTER: Is there anyone here representing Texas Pacific Coal and Oil Company or Rowan?

Does anyone else have any questions of Mr. Cooley? Mr. Cooley may be dismissed.

(Witness dismissed)

MR. CHRISTY: We would now like to offer in evidence Western Drilling Company of Longview's Exhibits One, Two and Three.

MR. PORTER: Without objection, the Exhibits will be admitted.

MR. CHRISTY: That's all we have.

MR. PORTER: The commission will take this case under advisement, and we will take about a ten minute recess.

(Recess)

STATE OF NEW MEXICO, )  
 ) ss.  
COUNTY OF BERNALILLO. )

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was taken by me in stenotype, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand and seal this 21<sup>st</sup> day of July, 1958,  
in the City of Albuquerque, County of Bernalillo, State of New Mexico.

  
Notary Public and Reporter

My commission expires:  
June 19, 1959

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
June 18, 1958

IN THE MATTER OF: Case No. 1473

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES  
INCORPORATED  
GENERAL LAW REPORTERS  
ALBUQUERQUE, NEW MEXICO  
3-6691 5-9546

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
June 18, 1958

IN THE MATTER OF:

Southeastern New Mexico Nomenclature case calling for an order for the extension of existing pools in Lea and Eddy Counties, New Mexico. Case 1473

- (a) Extend the Atoka Pool to include:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM  
Section 23: N/2 NW/4

- (b) Extend the Blinebry Gas Pool to include:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM  
Section 29: W/2

- (c) Extend the Eumont Gas Pool to include:

TOWNSHIP 19 SOUTH, RANGE 36 EAST, NMPM  
Section 1: E/2

- (d) Extend the Gladiola Pool to include:

TOWNSHIP 11 SOUTH, RANGE 38 EAST, NMPM  
Section 29: SE/4  
Section 32: NE/4

- (e) Extend the Grayburg Jackson Pool to include:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM  
Section 19: SE/4

- (f) Extend the Hare Pool to include:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM  
Section 4: NW/4

- (g) Extend the West Henshaw-Grayburg Pool to include:

TOWNSHIP 16 SOUTH, RANGE 30 EAST, NMPM  
Section 17: SW/4

- (h) Extend the Kemnitz-Wolfcamp Pool to include:)

TOWNSHIP 16 SOUTH, RANGE 33 EAST, NMPM  
Section 26: NE/4

- (i) Extend the South Leo-Grayburg Pool to include:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM  
Section 36: NE/4

- (j) Extend the Pearl-Queen Pool to include:

TOWNSHIP 19 SOUTH, RANGE 35 EAST, NMPM  
Section 21: SW/4  
Section 28: NW/4

- (k) Extend the San Simon Pool to include:

TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM  
Section 28: SW/4  
Section 33: NW/4

- (l) To reconsider the designation and limits of the South Sawyer-San Andres Pool.

BEFORE:

Mr. A. L. Porter, Jr.  
Mr. Murray Morgan  
Governor Edwin L. Mechem

#### TRANSCRIPT OF PROCEEDINGS

MR. PORTER: We will take up next Southeast nomenclature Case 1473.

MR. PAYNE: Case 1473: Southeastern New Mexico Nomenclature case calling for an order for the extension of existing pools in Lea and Eddy Counties, New Mexico.

MR. CAMPBELL: If the Commission please, the Commission witness has said that he is agreeable to us proceeding with sub-



section (1) of that case at this time. It will take just a few minutes to put in some exhibits.

MR. PORTER: Who do you represent?

MR. CAMPBELL: I am Jack M. Campbell, Campbell and Russell, Roswell, New Mexico, appearing on behalf of Rowan Oil Company. I have one witness, Mr. Allen.

MR. PORTER: Will you stand and be sworn?

(Witness sworn.)

MR. PORTER: Just a minute, Mr. Campbell. Will there be other appearances in this case?

MR. CHRISTY: Sim Christy of Hervey, Dow and Hinkle, representing Western Drilling Company of Longview, who is the operator to the north of the subject hearing.

MR. PORTER: Anybody else wish to make an appearance in this case? You may proceed, Mr. Campbell.

A. C. ALLEN

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

DIRECT EXAMINATION

By MR. CAMPBELL:

Q State your name, please.

A My name is A. C. Allen.

Q By whom are you employed?

A Rowan Oil of Fort Worth, Texas.

Q In what capacity?

A Geologist.

Q How long have you been with that company?

A Twenty-three years.

Q Have you previously testified before the New Mexico Oil Conservation Commission in your professional capacity as a geologist?

A I have.

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

MR. PORTER: Yes, sir, they are.

Q Are you acquainted with the Oil Conservation Commission designation of the South Sawyer-San Andres Pool in Lea County, New Mexico?

A I am.

Q Since the completion of the Rowan Oil Company No. 1 Federal well, have you made a study of this pool as related to the Buckshot-San Andres Pool in Texas, across the State line?

A I have.

(Rowan's Exhibits Nos. 1, 2, 3, 3-A, 4, & 5 marked for identification.)

Q I refer you to what has been identified as Rowan Exhibit No. 1 and ask you -- well, I'm going to hand you all the exhibits, Rowan Exhibits No. 1, 2, 3, No. 3-A, No. 4, and No. 5, and ask you to please state what those are in sequence, please?

A All right. Exhibit No. 1 is a structural contour map from the South Sawyer-San Andres Field east into Cochran County, covering the Buckshot Field. It's contoured on top of the dolomite

pay zones, which is San Andres age.

Q Now Exhibit 2, please.

A Exhibit 2 is a cross-section from the South Sawyer-San Andres Pool east into the Buckshot Pool-San Andres Pool in Cochran County.

Q Exhibit 3.

A Exhibit 3 is a radioactivity log of the Rowan Oil Company Federal No. 1 in the South Sawyer-San Andres Pool. Exhibit No. 3-A is a gamma neutron log of the agricultural association standing for No. 1, which is a well in the Buckshot Field.

Exhibit 4 is a core analysis of the pay section of the Rowan Oil Company Federal No. 1 in the South Sawyer-San Andres Field.

Exhibit No. 5 is a copy of a letter from the Cactus Petroleum Company in reference to their desire for us to change the name.

Q Mr. Allen --

MR. CAMPBELL: I would like to offer these exhibits at this time in evidence, Rowan Oil Company Exhibits 1 through 5.

MR. PORTER: Without objection they will be admitted.

Q Mr. Allen, would you please read the pertinent paragraphs of the letter from Cactus Petroleum, Inc. dated May 19, 1958, which is Rowan Exhibit No. 5?

A Well, it's -- "You will please recall that at the time the No. 1 well on this property was completed, we advised that we

anticipated no difficulty in arranging a market for the oil if the well was classified in the Buckshot 4950 foot sand field. We have purchased the oil during the time the well was carried as an undesignated location. However, the lease has now been placed in the South Sawyer-San Andres Field, and it is necessary that we discontinue purchasing this oil.

Our market outlet in this area is to the Atlantic Refining Company, and said company does not desire to purchase oil from the South Sawyer-San Andres Field. Since this well is producing light crude from the 4950 and is located immediately west across the Texas-New Mexico State line, it might be that you could prevail upon the New Mexico Oil Conservation Commission to reclassify this well in the Buckshot Field, and if so, we will be in a position to resume our purchases."

Q Is that letter a part of the basis for your interest in this change in nomenclature in this particular pool?

A It is.

Q What is it that you are now recommending to the Commission?

A We recommend that the South Sawyer-San Andres Pool, which was discovered by the Rowan Oil Company Federal No. 1, is designated by the New Mexico Oil Conservation Commission as the South Sawyer Pool, be reclassified or redesignated as the Buckshot Pool.

Q And what about the limits of the Pool?

A Well, to include Section 33, Township 9 South, Range 38 East.

Q Mr. Allen, referring to the Exhibits 1 and 2 particularly, will you state briefly to the Commission what those indicate to you with regard to any relationship or possible relationship between the area in New Mexico to which you have referred and the Buckshot Pool in Texas?

A Well, I'll just read this right here. The Rowan Oil Company Federal No. 1 was completed January 12, 1958, from perforation at 4950 to 4978 feet. This well, located one mile west of the nearest producer in the Buckshot Field, produces from a porous dolomite 730 feet below the top of the San Andres formation. Pay zone has an average porosity of 7.8 percent, average permeability of 1.1 millidarcys, average connate water saturation of 34 percent of pore space.

The Buckshot Field in Cochran County, Texas, was discovered in 1956 and that produces oil from the San Andres dolomite 730 feet below the top of the San Andres formation. The pay zone has an average net pay thickness of 55 feet and is an average depth of 4950.039 feet. The average porosity is 74 percent. The average permeability is 2.2/hundredths millidarcy. The average gravity of the oil is 23 degrees. It produces from a subsea datum on top of the porous dolomite of approximately a minus 1,000 feet to a minus 1,087 feet. The controlling structural feature is a porosity pinch-out of this zone, and the exact limits of the field have not been defined.

The producing zone in the Rowan Federal No. 1 in the South

Sawyer-San Andres Field is well within the present subsea limits and has the same structural and stratigraphic position as the producing zone in the Buckshot Field. The controlling structural feature of both fields is a porosity pinch-out. Porosity and permeability of the pay in both fields together with the gravity of the oil are generally the same. There are no dry holes between the fields, and it is the opinion of the Rowan Oil Company from the information we have at the present time that the Buckshot Field in Cochran County, Texas, and the South Sawyer-San Andres Pool in Lea County, New Mexico, are part of the same oil pool.

Q Does your cross-section as indicated on Exhibit 2, do those bear out your conclusions based on the information you presently have available in this area?

A The cross-section bears out that information. It is from the Rowan Federal No. 1 into two wells in the Buckshot Field. It shows the top of the San Andres and 730 feet in the top of the zone of porosity in each well, and they are all three -- there are others that we could use would be 780 feet in.

MR. CAMPBELL: I believe that's all.

MR. PORTER: Any questions of the witness? Mr. Nutter.

#### CROSS EXAMINATION

By MR. NUTTER:

Q Mr. Allen, what are the limits of the South Saunders Pool as defined by the New Mexico Oil Conservation Commission?

A The South Sawyer it is.

Q I beg your pardon.

A The South Sawyer-San Andres Field includes Lots 3 and 4 and the West Half of the Southwest Quarter of Section 33. In other words, that would be the South Half of Section 33, as shown on the map it is a fractional section.

Q The entire South Half of that fractional section?

A That's the way it is designated at the present time.

Q What are the limits of the Buckshot Field in Cochran County, Texas, as defined by the Railroad Commission?

A I don't think it is defined.

Q Have they created a pool?

A Yes, they have field rules for the Buckshot Field.

Q They haven't defined the limits?

A No, they haven't. The limits, it is defined as the San Andres 450 foot pay, but the areal extent has not been defined.

Q Is this the practice of the Railroad Commission not to define the pool?

A That's right. I don't know how you could. It is being extended all the time.

Q How about the pool rules, how far out are they?

A They don't say. I think I'm right in that. I have a copy of them here.

Q Is all of Section 11 there in Texas under the rules of the Buckshot Field?

A No, it sure doesn't, there's no limits to it.

Q So these Buckshot Pool Rules extend radially from the Buckshot Field in just almost any amount of mileage, or what?

A That's right. As long as it is being extended, they still classify the wells as Buckshot Pool.

Q Has the Railroad Commission defined any particular rules for the Buckshot Field that differ in any way from the pool rules or the Statewide rules for the South Sawyer Pool?

A No, we don't have any, but it would be the Statewide rules we are operating under.

MR. ADAIR: He is talking about the New Mexico.

Q There are no special pool rules for South Sawyer, are there?

A No.

MR. CAMPBELL: No, sir, and this hearing does not encompass any at this time.

Q Do the pool rules for the Buckshot differ in any way from the New Mexico rules in the operation of a well?

A They might do that. However, it's on a 40-acre spacing, I believe.

MR. PORTER: The spacing is the same, then?

A Yes.

MR. CAMPBELL: We would be glad to leave the copy of the pool rules here. I don't think it's particularly pertinent to this hearing, but it could be down the road, and we'd be glad to leave it here if the Commission would like to examine it for that purpose.



MR. NUTTER: I'm sure we would be glad to read the rules.

Q Do the pool rules provide any GOR limit?

A Yes, 2,000 to 1.

MR. NUTTER: It is the same as the Statewide rules in New Mexico.

MR. CAMPBELL: Yes, and it has a penalty in excess of that. We don't want to offer it in evidence. We don't think it is material to this particular hearing. We have no objection to leaving it with the Commission for whatever purpose it may serve.

Q Is the well belonging to Humble on the Sherrill Lease in Section 10, the well being the No. 1 that is identified as a total depth of 5203?

A The one in the center of the Section? It was an old well drilled before the Buckshot Field was discovered and plugged as a dry hole.

Q How about the No. 2 Well?

A That is an abandoned location. Since that time there is a well completed in the northeast corner, and a drilling well, No. "C" 2, it's a farmout to Murchison, Humble has farmed out to Murchison.

Q Where is the well completed in the northeast corner?

That is the well right there on the figure "10"?

A Yes, that's right.

Q Is No. 1 Well in the Northeast Quarter of Section 11 drilling at the present time?

A I don't have that information. I just have it as a location.

Q How about the No. 2 Well and the No. 3 Well in the South Half of Section 11?

A The No. 2 Well is drilling at the present time. The last information we have, they have five-inch set at 4963.

Q That was the No. 2?

A That was the No. 2. It may be completed by now.

Q To your knowledge that well hasn't been completed as yet?

A It wasn't the last report we had. There is another well in the Northwest corner of Section 22, you see, on to the south. They have pipe set in that well and perforated; there again I do not know of any potential on it.

Q That would be the Well No. 1 with a total depth of 4196 indicated on this?

A Yes.

Q Do you have any information relative -- now wait a minute, the No. 1 Well, how many wells are there in the North Half of Section 21, Mr. Allen?

A Three.

Q Are all three of those wells producing?

A Yes, sir.

Q From the same interval?

A That's right.

Q The Rowan well in New Mexico?

A Yes, sir, that's right.

Q Do you have any information relative to the gravity of the oil produced from those three wells?

A I think it is 28 gravity.

Q On all three?

A Well, it might vary from one to the other. My information on the No. 1 well was 28 gravity.

Q Which No. 1?

A The No. 1 for Standefer for Jack Markham. It would be in the western division of 21.

Q What is the gravity of the oil produced from your well?

A 27 to 28.

Q Do you have any information relative to the comparable GOR's of the well?

A Well, our wells on pump and at the present time the GOR is not high. It is very low.

Q How about the wells over there in Texas?

A Well, they vary as you go --

Q (Interrupting) On Section 21?

A On Section 21, the GOR's are not high. They're well within the 2,000 to 1 limits.

Q How about bottom-hole pressures? Have any been taken in this area?

A Now I don't have that, the bottom-hole pressure information, no, sir.

MR. NUTTER: I believe that's all. Thank you.

MR. PORTER: Anyone else have a question of the witness?  
You may be excused.

(Witness excused.)

MR. CAMPBELL: That's all we have.

MR. CHRISTY: At this time we would like to move for a recess and continuance of this case in behalf of Western Drilling Company, who is the operator of the well immediately north of the subject area involved in this application. The facts are that approximately ten days or two weeks ago, one of our personnel went into the Hobbs office and heard of this matter off the cuff. We didn't actually realize what this was all about until last Thursday, at which time we started working to make graphs, core analysis charts, et cetera. We are not prepared because of the time limitations; however, our present information leads us to question whether or not the Buckshot Pool and the Rowan well are producing from one common reservoir, and whether or not that should be so classified as Buckshot or whether it should obtain a distinct nomenclature.

For that reason, we would like to continue this case and recess it until the July hearing, at which time we hope, by then, we can have discussed this matter rather thoroughly with Rowan and perhaps worked out our differences and be in a position to present to the Commission further data concerning the other Buckshot wells, our well and other wells in New Mexico and Texas,

with relation to the number of facets and histories.

MR. CAMPBELL: If the Commission please, we have no objection to that. Obviously the drilling of the additional wells will provide additional information. Our concern is marketing our oil. We are making the effort that the purchasing company has requested, and so long as we can continue to sell our oil, we don't care what we call the field; but we will not object to a continuance of the matter to the next hearing.

MR. CHRISTY: It is my understanding that during the continuance you will not be cut off from your purchaser?

MR. CAMPBELL: We don't know whether we will or not. We assume we won't be cut off, but we don't know. If we are, we will be screaming back up here.

MR. PORTER: Any objection to counsel's motion for continuance? The Commission will continue paragraph (1) of Case 1473 to the regular July hearing.

We will continue at this time with the other paragraphs as advertised in Case 1473, and ask Mr. Runyan to take the stand and be sworn.

(Witness sworn.)

JOHN W. RUNYAN

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

DIRECT EXAMINATION

By MR. PAYNE:

Q Will you state your name and position, please?

A John W. Runyan, geologist for the New Mexico Oil Conservation Commission.

Q Mr. Runyan, in your capacity as geologist for the Oil Conservation Commission of New Mexico, have you had an opportunity to make a study concerning the extension of existing pools in Lea County and Eddy County, New Mexico?

A Yes, I have.

Q What are your recommendations concerning the extension of the Atoka Pool?

A I recommend it be extended as advertised due to one well capable of producing from this pool.

Q What are your recommendations concerning the extension of the Blinbry Gas Pool?

A I recommend this pool be extended as advertised, due to one well completed capable of producing from this pool.

Q What are your recommendations concerning the extension of the Eumont Pool?

A I recommend that this pool be extended as advertised, due to two wells recently completed and capable of producing from this pool.

Q What are your recommendations concerning the extension of the Gladiola Pool?

A I recommend that the pool be extended as advertised, due to one well producing from the pool.

Q What are your recommendations concerning the extension of the Grayburg Jackson Pool?

A I recommend that the pool be extended as advertised, due to one well recently completed and capable of producing from the pool.

Q What are your recommendations concerning the extension of the Hare Pool?

A I recommend that the pool be extended as advertised, due to two wells capable of producing from the pool.

Q What are your recommendations as to the extension of the West Henshaw-Grayburg Pool?

A I recommend that this pool be extended as advertised and an unadvertised portion, being Lots 19 and 22 of Section 3 in Township 16 South, Range 30 East, and this is due to two wells recently completed and capable of producing from this pool.

Q What are your recommendations concerning the extension of the Kemnitz-Wolfcamp Pool?

A I recommend that this pool be extended as advertised, and also an unadvertised portion, being the Southeast Quarter of Section 26, Township 16 South, Range 33 East. This is due to two wells recently completed and capable of producing from this pool.

Q What are your recommendations concerning the extension of the South Leo-Grayburg Pool?

A I recommend that this pool be extended as advertised, due

to one well capable of producing from the pool.

Q What are your recommendations concerning the extension of the Pearl-Queen Pool?

A I recommend that the pool be extended as advertised, and also two unadvertised portions, being the North Half of the Southwest Quarter of Section 22, the Northeast Quarter of Section 29 in Township 19 South, Range 35 East. This is due to six wells recently completed and capable of producing from this pool.

Q What are your recommendations concerning the extension of the San Simon Pool?

A I recommend that this pool be extended as advertised, due to one well capable of producing from this pool.

Q Mr. Runyan, have you prepared exhibits substantiating your recommendations?

A Yes, I have. I wish to submit to the Commission the Exhibits A through K.

Q Your exhibits have been identified A through K?

A That's correct.

MR. PAYNE: I move for the admission of Exhibits A through K in Case 1473.

MR. PORTER: Without objection they will be admitted.  
Any questions of the witness? The witness may be excused.

(Witness excused.)

MR. PORTER: Anyone have anything further to offer in this case? We will take the case under advisement.



## C E R T I F I C A T E

STATE OF NEW MEXICO     )  
                                  ) ss  
COUNTY OF BERNALILLO    )

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 2<sup>nd</sup> day of July, 1958,  
in the City of Albuquerque, County of Bernalillo, State of New Mexico.

  
NOTARY PUBLIC

My commission expires:  
June 19, 1959.

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

August 14, 1958

C  
O  
P  
Y

Mr. Jack Campbell  
Campbell & Russell  
P.O. Box 721  
Roswell, New Mexico

Dear Mr. Campbell:

On behalf of your client, Rowan Oil Company, we enclose two copies of Order R-1210-A, Order of Dismissal, issued in Case 1473.

Very truly yours,

A. L. Porter, Jr.  
Secretary - Director

bp  
Encls.

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

August 14, 1958

C  
O  
P  
Y  
Mr. S. B. Christy  
Hervey, Dow & Hinkle  
P.O. Box 547  
Roswell, New Mexico

Dear Mr. Christy:

On behalf of your client, Western Drilling Company, we  
enclose two copies of Order R-1210-A, Order of Dismissal, issued  
in Case 1473.

Very truly yours,

A. L. Porter, Jr.  
Secretary - Director

bp  
Encls.

**BUCKSHOT FIELD  
(4950' Sand)  
Cochran County, Texas.**

Special Order No. 8-35,048, Adopting Operating Rules for the  
Buckshot (4950' Sand) Field, Cochran County, Texas,  
Effective March 4, 1957, and Amended by Order  
Effective August 12, 1957.

WHEREAS, After due notice, the Railroad Commission of Texas held a hearing on February 28, 1957, on the application of Anderson-Prichard Oil Corporation to consider the adoption of rules and regulations to govern the drilling, completion and operation of wells in the Buckshot (4950' Sand) Field, Cochran County, Texas; and

WHEREAS, From evidence adduced at said hearing, it appears to the Commission that the subject field was discovered in 1956 and produces from a San Andres Dolomite at 4950-5010' with an average gross pay thickness of 90 feet and an average net thickness of 55 feet; that the average porosity of the formation is 7.4 and the permeability is 2.02 mds and that one well will effectively drain 40 acres in this reservoir; that the field has been developed by the completion of 9 wells and that additional drilling is under way and contemplated for further development of said field; and

WHEREAS, From evidence submitted at said hearing, the Commission is of the opinion and finds that waste as the term is defined in the applicable statutes will take place in said field unless rules are adopted by the Commission for the prevention thereof, and that the following field rules are necessary to prevent such waste and to provide for a more orderly development and operation of said field.

NOW, THEREFORE, IT IS ORDERED By the Railroad Commission of Texas that effective March 4, 1957, the following rules in addition to such of the Commission's general rules and regulations as are not in conflict herewith, be and the same are hereby adopted to govern the drilling, completion and operation of wells in the Buckshot (4950' Sand) Field, Cochran County, Texas.

**RULE 1.** No well for oil or gas shall hereafter be drilled nearer than twelve hundred (1200) feet to any well completed in or drilling to the same reservoir on the same lease, unitized tract or farm, and no well shall be drilled nearer than five hundred ten (510) feet to any property line, lease line or subdivision line, provided, however, that the Commission will, in order to prevent waste or to prevent the confiscation of property grant exceptions to permit drilling within shorter distances than herein prescribed whenever the Commission shall have determined that such exceptions are necessary either to prevent waste or to prevent the confiscation of property. When exception to this rule is desired, application therefor shall be filed and will be acted upon in accordance with the provisions of Commission Statewide Rules 37 and 38, which applicable provisions of said rules are incorporated herein by reference.

The aforementioned distances in the above rule are minimum distances to allow an operator flexibility in locating a well, and the above spacing rule and the other rules to follow are for the purpose of permitting only one well to each forty (40) acre proration unit.

In applying this rule the general order of the Commission with relation to the subdivision of property shall be observed.

**RULE 2.** The acreage assigned to the individual oil well for the purpose of allocating allowable oil production thereto shall be known as a proration unit. No proration unit shall consist of more than forty (40) acres except as hereinafter provided, and the two farthestmost points in any proration unit shall not be in excess of twenty-one hundred (2100) feet removed from each other; provided, however, that in the case of long and narrow leases or in cases where because of the shape of the lease such is necessary to permit the utilization of tolerance acreage the Commission may after proper showing grant exceptions to the limitations as to the shape of proration units as herein contained. All proration units, however, shall consist of continuous and contiguous acreage which can reasonably be considered to be productive of oil.

If after the drilling of the last well on any lease and the assignment of acreage to each well thereon in accordance with the regulations of the Commission there remains an additional unassigned lease acreage of less than forty (40) acres, then and in such event the remaining unassigned lease acreage up to and including a total of twenty (20) acres may be assigned to the last well drilled on such lease or may be distributed among any group of wells located thereon so long as the proration units resulting from the inclusion of such additional acreage meets the limitations prescribed by the Commission.

Operators shall file with the Commission certified plats of their properties in said field, which plats shall set out distinctly all of those things pertinent to the determination of the acreage credit claimed for each well; provided that if the acreage assigned to any proration unit has been pooled, the operator shall furnish the Commission with such proof as it may require as evidence that interests in and under such proration unit have been so pooled.

**RULE 3.** The daily total field oil allowable, as fixed by the Commission after deductions have been made for marginal wells, high gas-oil ratio wells and wells which are incapable of producing their allowables as determined hereby, shall be distributed among the remaining producing wells in the field on the following basis:

(a) The daily acreage allowable for each well, after said deductions have been made, shall be that proportion of seventy-five (75) percent of the daily field allowable which the acreage assigned to the well bears to the remaining acreage assigned to all the wells in the field.

(b) The daily per well allowable for each well, after said deductions have been made, shall be determined by dividing twenty-five (25) percent of the total field daily allowable by the number of producing wells in the field.

(c) The total daily oil allowable for each well shall be the sum of its per well and acreage allowables.

**RULE 4.** The permitted gas-oil ratio for all wells shall be two thousand (2000) cubic feet of gas per barrel of oil produced. Any oil well producing with a gas-oil ratio in excess of two thousand (2000) cubic feet of gas per barrel of oil shall be allowed to produce daily only that volume of gas obtained by multiplying the daily oil allowable of such well as determined by the applicable rules of the Commission by two thousand (2000) cubic feet. The gas volume thus obtained shall be known as the daily gas limit of such well. The daily oil allowable therefor shall then be determined and assigned by dividing the daily gas limit by its producing gas-oil ratio.

**RULE 5.** (As Amended by Order No. 8-36,057, Effective August 12, 1957.) Surface casing shall be of new or reconditioned pipe of proper weight and test to withstand the known pressures in said field set and cemented at a depth not less than twenty (20) feet below the top of the Red Beds, said amount of surface casing to be adequate to protect all fresh water sands. Cementing shall be by the pump and plug method with a sufficient volume of cement used to fill the annular space back of the casing to the surface of the ground or the bottom of the cellar. Cement shall be allowed to stand a minimum of twenty-four (24) hours under pressure before drilling the plug or initiating tests. Before drilling the plug, pump pressure of at least one thousand (1000) pounds per square inch shall be applied. If at the end of thirty (30) minutes the pressure shows a drop of one hundred (100) pounds per square inch, or more, the casing shall be condemned. After corrective operations, the casing shall be tested again in the same manner. The depth to the top of the Red Beds in each well shall be shown on Form 2 (Well Record) for such well.

**RULE 6.** The datum reservoir pressure of all oil wells in the field, except marginal wells as defined by statutes, shall be determined once a year during the months of October-November-December and the results reported to the Commission by the first (1st) day of January. The datum reservoir pressure shall be obtained by the use of a subsea pressure gauge and the pressure observations shall be made at or corrected to a datum of one thousand eighty (1080) feet below sea level after a shut-in period of not less than seventy-two (72) continuous hours. The Commission's Form BHP-1 shall be used to report to the Commission the results of all pressure determinations made under the provisions of this rule.

**(BUCKSHOT (4950' SAND) FIELD—Cont'd)**

In any well where it is impossible or impracticable to use a subsea pressure gauge, excluding paraffine obstructions which may be cleaned by scraping, the bottom hole pressure determinations may be made by using the float or sound wave method to determine the fluid level after the well has been shut-in for the same number of hours required to obtain bomb pressure results. The pressure at the datum depth shall be calculated by adding the pressure exerted by the weight of the oil and gas column above this level in pounds per square inch to the gauge pressure at the tubing head when the float method is used, and to the gauge pressure at the casing head when the sound wave method is used.

IT IS FURTHER ORDERED That this cause be held open on the docket for such other and further orders as may be necessary.

**MONAHANS, NORTH FIELD  
(Devonian)**

**Winkler County, Texas.**

**Special Order No. 8-35,089, Adopting Operating Rules for the Monahans, North (Devonian) Field, Winkler County, Texas, Effective March 4, 1957.**

WHEREAS, After due notice, the Railroad Commission of Texas held a hearing on February 26, 1957, on the application of Pan-American Petroleum Corporation to consider the adoption of rules and regulations to govern the drilling, completion and operation of wells in the Monahans, North (Devonian) Field, Winkler County, Texas; and

WHEREAS, From evidence adduced at said hearing, the Commission finds that said field was discovered in 1955, and is developed with five oil wells producing from an average depth of 9300', and said reservoir has been penetrated by eight wells; the producing formation has a gross thickness of 235', and the average porosity and permeability is 4% and 14 mds., with permeability ranging up to 494 mds., and the reservoir pressure data indicate one well will drain 80 acres; and

WHEREAS, From evidence submitted at said hearing, the Commission is of the opinion and finds that waste as the term is defined in the applicable statutes will take place in said field unless rules are adopted by the Commission for the prevention thereof, and that the following field rules are necessary to prevent such waste and to provide for a more orderly development and operation of said field.

NOW, THEREFORE, IT IS ORDERED By the Railroad Commission of Texas that effective March 4, 1957, the following rules in addition to such of the Commission's general rules and regulations as are not in conflict herewith, be and the same are hereby adopted to govern the drilling, completion and operation of wells in the Monahans, North (Devonian) Field, Winkler County, Texas.

**RULE 1.** No well for oil or gas shall hereafter be drilled nearer than thirteen hundred and twenty (1320) feet to any well completed in or drilling to the same reservoir on the same lease, unitized tract or farm, and no well shall be drilled nearer than four hundred forty (440) feet to any property line, lease line or subdivision line; provided, however, that in order to prevent waste or to prevent the confiscation of property the Commission will grant exceptions to permit drilling within shorter distances than herein prescribed whenever the Commission shall have determined that such exceptions are necessary either to prevent waste or to prevent the confiscation of property. When exception to this rule is desired, application therefor shall be filed and will be acted upon in accordance with the provisions of Commission Statewide Rules 37 and 38, which applicable provisions of said rules are incorporated herein by reference.

The aforementioned distances in the above rule are minimum distances to allow an operator flexibility in locating a well, and the above spacing rule and the other rules to follow are for the purpose of permitting only one well to each eighty (80) acre proration unit.

In applying this rule the general order of the Commission with relation to the subdivision of property shall be observed.

**RULE 2.** The acreage assigned to the individual oil well for the purpose of allocating allowable oil production thereto shall be known as a proration unit. No proration unit shall consist of more than eighty (80) acres except as hereinafter provided, and the two farthestmost points in any proration unit shall not be in excess of three thousand (3,000) feet removed from each other; provided, however, that in the case of long and narrow leases or in cases where because of the shape of the lease such is necessary to permit the utilization of tolerance acreage the Commission may after proper showing grant exceptions to the limitations as to the shape of proration units as herein contained. All proration units, however, shall consist of continuous and contiguous acreage which can reasonably be considered to be productive of oil.

If after the drilling of the last well on any lease and the assignment of acreage to each well thereon in accordance with the regulations of the Commission, there remains an additional unassigned lease acreage of less than eighty (80) acres, then and in such event the remaining unassigned lease acreage up to and including a total of forty (40) acres may be assigned to the last well drilled on such lease or may be distributed among any group of wells located thereon so long as the proration units resulting from the inclusion of such additional acreage meets the limitations prescribed by the Commission.

Operators shall file with the Commission certified plats of their properties in said field, which plats shall set out distinctly all of those things pertinent to the determination of the acreage credit claimed for each well; provided that if the acreage assigned to any proration unit has been pooled, the operator shall furnish the Commission with such proof as it may require as evidence that interests in and under such proration unit have been so pooled.

**RULE 3.** The daily total field oil allowable, as fixed by the Commission after deductions have been made for marginal wells, high gas-oil ratio wells and wells which are incapable of producing their allowables as determined hereby, shall be distributed among the remaining producing wells in the field on the following basis:

(a) The daily acreage allowable for each well, after said deductions have been made, shall be that proportion of seventy-five (75) percent of the daily field allowable which the acreage assigned to the well bears to the remaining acreage assigned to all the wells in the field.

(b) The daily per well allowable for each well, after said deductions have been made, shall be determined by dividing twenty-five (25) percent of the total field daily allowable by the number of producing wells in the field.

(c) The total daily oil allowable for each well shall be the sum of its per well and acreage allowables.

**RULE 4.** Surface casing shall be of new or reconditioned pipe of proper weight and test to withstand the known pressures in said field, set and cemented at a depth not less than six hundred (600) feet below the surface of the ground; said amount of surface casing to be adequate to protect all fresh water sands. Cementing shall be by the pump and plug method with a sufficient volume of cement used to fill the annular space back of the casing to the surface of the ground or the bottom of the cellar. Cement shall be allowed to stand a minimum of twenty-four (24) hours under pressure before drilling the plug or initiating tests. Before drilling the plug, pump pressure of at least one thousand (1,000) pounds per square inch shall be applied. If at the end of thirty (30) minutes the pressure shows a drop of one hundred (100) pounds per square inch, or more, the casing shall be condemned. After corrective operations, the casing shall be tested again in the same manner.

IT IS FURTHER ORDERED That this cause be held open on the docket for such other and further orders as may be necessary.

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. 1473  
Order No. R-1210-A

APPLICATION OF THE OIL CONSERVATION  
COMMISSION ON ITS OWN MOTION TO  
RECONSIDER THE DESIGNATION AND LIMITS  
OF THE SOUTH SAWYER-SAN ANDRES POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on June 18, 1958, and again on July 16, 1958, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 13<sup>th</sup> day of August, 1958, the Commission, a quorum being present, having considered the application and the evidence adduced, 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 problem which gave rise to the Commission's decision to reconsider the designation and limits of the South Sawyer-San Andres Pool has been resolved.

IT IS THEREFORE ORDERED:

That paragraph (1) of Case No. 1473, referring to the South Sawyer-San Andres Pool, be and the same is hereby dismissed.

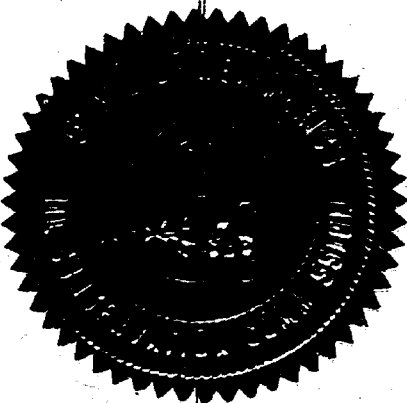
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*E. L. Meehan*  
Edwin L. Meehan, Chairman

*Murray E. Morgan*  
Murray E. Morgan, Member

*A. L. Porter, Jr.*  
A. L. Porter, Jr., Member & Secretary



DOCKET: REGULAR HEARING JULY 16, 1958

Oil Conservation Commission 9 a.m. Mabry Hall, State Capitol, Santa Fe, NM

- ALLOWABLE: (1) Consideration of the oil allowable for August, 1958.
- (2) Consideration of the allowable production of gas for August, 1958, from six prorated pools in Lea County, New Mexico; also consideration of the allowable production of gas from seven prorated pools in San Juan and Rio Arriba Counties, New Mexico, for August, 1958.

NEW CASES

CASE 1276: In the matter of the hearing ordered to be called by Order No. R-1031 to permit Amerada Petroleum Corporation and other interested operators to appear and show cause why 320-acre spacing and the Special Rules and Regulations for the Bagley-Lower Pennsylvanian Gas Pool in Lea County, New Mexico, as set forth in Order R-1031 should be continued in effect beyond August 31, 1958.

CASE 1325: In the matter of the hearing ordered to be called by Order No. R-1091 to permit Amerada Petroleum Corporation and other interested operators to appear and show cause why 320-acre spacing and the Special Rules and Regulations for the Bagley-Upper Pennsylvanian Gas Pool in Lea County, New Mexico, as set forth in Order R-1091 should be continued in effect beyond August 31, 1958.

CASE 1384: In the matter of the hearing ordered to be called by Order No. R-1136 to permit Amerada Petroleum Corporation to appear and present additional evidence as to the proper designation of the oil producing intervals in its State BTO No. 1 Well located 990 feet from the South line and 2310 feet from the East line of Section 34, Township 11 South, Range 33 East, in the Bagley-Pennsylvanian area of Lea County, New Mexico, and to show cause why the above-described well should be permitted to continue to produce as a dual completion.

CASE 1480: Southeastern New Mexico nomenclature case calling for an order for the creation of new pools and the extension and reclassification of existing pools in Lea, Eddy and Roosevelt Counties, New Mexico.

- (a) Create a new oil pool for Devonian production, designated as the Dickinson-Devonian Pool, and described as:

TOWNSHIP 10 SOUTH, RANGE 36 EAST, NMPM  
Section 34: SW/4

- (b) Create a new oil pool for Queen production, designated as the East Millman-Queen Pool, and described as:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM  
Section 14: SE/4

(c) Create a new oil pool for Bone Springs production, designated as the South Vacuum-Bone Springs Pool, and described as:

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM  
Section 22: NW/4

(d) Change the pool limits of the Artesia Pool to Queen, Grayburg, and San Andres.

(e) Extend the Jalmat Pool to include:

TOWNSHIP 22 SOUTH, RANGE 35 EAST, NMPM  
Section 10: NE/4  
Section 11: NW/4 & W/2 NE/4

(f) Extend the Justis Pool to include:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM  
Section 13: NE/4

(g) Extend the Justis-Fusselman Pool to include:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM  
Section 24: SW/4

(h) Extend the Milnesand-Pennsylvanian Pool, to include:

TOWNSHIP 8 SOUTH, RANGE 34 EAST, NMPM  
Section 14: SE/4

(i) Extend the Vandagriff-Keyes Gas Pool to include:

TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM  
Section 33: SE/4  
Section 34: SW/4

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM  
Section 4: NE/4

(j) To consider the reclassification of the Four Lakes-Devonian Pool, from an oil pool to a gas pool upon the application of Humble Oil & Refining Company. The present horizontal limits of said pool are as follows:

TOWNSHIP 11 SOUTH, RANGE 34 EAST, NMPM  
Section 35: SE/4

TOWNSHIP 12 SOUTH, RANGE 34 EAST, NMPM  
Section 1: NW/4  
Section 2: NE/4



CASE 1481:    Northwestern New Mexico nomenclature case calling for an order for the extension of existing pools in Rio Arriba and San Juan Counties, New Mexico.

(a)    Extend the Aztec-Pictured Cliffs Pool to include:

TOWNSHIP 28 NORTH, RANGE 8 WEST, NMPM

Section 15:    SW/4

Section 16:    S/2

Section 17:    S/2

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 1:    All

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM

Section 21:    SW/4

Section 28:    NW/4

TOWNSHIP 30 NORTH, RANGE 12 WEST, NMPM

Section 1:    NW/4

(b)    Extend the South Blanco-Pictured Cliffs Pool to include:

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM

Section 8:    SE/4

(c)    Extend the Blanco-Mesaverde Pool to include:

TOWNSHIP 27 NORTH, RANGE 8 WEST, NMPM

Section 8:    All

Section 17:    All

Section 18:    E/2

Section 29:    All

Section 31:    E/2

Section 32:    N/2

TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM

Section 35:    N/2

(d)    Extend the Bisti-Lower Gallup Oil Pool to include:

TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM

Section 18:    S/2

Section 19:    NE/4

TOWNSHIP 26 NORTH, RANGE 14 WEST, NMPM

Section 13:    SE/4

(e)    Extend the Horseshoe-Gallup Oil Pool to include:

TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM

Section 33:    SE/4 SW/4, S/2 SE/4

Section 34:    SW/4 SW/4

(f) Extend the Ctero-Gallup Oil Pool to include:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM  
Section 32: SE/4

(g) Extend the Verde-Gallup Oil Pool to include:

TOWNSHIP 30 NORTH, RANGE 15 WEST, NMPM  
Section 6: SE/4

TOWNSHIP 31 NORTH, RANGE 15 WEST, NMPM  
Section 33: SW/4  
Section 34: NW/4

CONTINUED CASES

CASE 1451: Application of Amerada Petroleum Corporation for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 280-acre non-standard gas proration unit in the Just's Gas Pool consisting of the W/2 SW/4 Section 24, NW/4 and SW/4 NE/4 of Section 25, all in Township 25 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's proposed well to be drilled in the NE/4 NW/4 of said Section 25.

CASE 1473: Southeastern New Mexico Nomenclature case.

(1) To reconsider the designation and limits of the South Sawyer-San Andres Pool.

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DOCKET: REGULAR HEARING JUNE 18, 1958

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

- ALLOWABLE:**
- (1) Consideration of the oil allowable for July, 1958.
  - (2) Consideration of the allowable production of gas for July, 1958, for six prorated pools in Lea County, New Mexico; consideration of the allowable production of gas from six prorated pools in San Juan and Rio Arriba Counties, New Mexico, for July, 1958, and also presentation of purchaser's nominations for the six-month period beginning August 1, 1958, for seven prorated pools in San Juan and Rio Arriba Counties, New Mexico.

NEW CASES

CASE 1451:

Application of Amerada Petroleum Corporation for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 280-acre non-standard gas proration unit in the Justis Gas Pool consisting of the W/2 SW/4 Section 24, NW/4 and SW/4 NE/4 of Section 25, all in Township 25 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's proposed well to be drilled in the NE/4 NW/4 of said Section 25.

CASE 1473:

Southeastern New Mexico Nomenclature case calling for an order for the extension of existing pools in Lea and Eddy Counties, New Mexico.

- (a) Extend the Atoka Pool to include:

TOWNSHIP 18 SOUTH, RANGE 26 EAST NMPM  
Section 23: N/2 NW/4

- (b) Extend the Blinebry Gas Pool to include:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM  
Section 29: W/2

- (c) Extend the Eumont Gas Pool to include:

TOWNSHIP 19 SOUTH, RANGE 36 EAST, NMPM  
Section 1: E/2

- (d) Extend the Gladiola Pool to include:

TOWNSHIP 11 SOUTH, RANGE 38 EAST, NMPM  
Section 29: SE/4  
Section 32: NE/4

- (e) Extend the Grayburg Jackson Pool to include:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM  
Section 19: SE/4

- (f) Extend the Hare Pool to include:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM  
Section 4: NW/4

- (g) Extend the West Henshaw-Grayburg Pool to include:

TOWNSHIP 16 SOUTH, RANGE 30 EAST, NMPM  
Section 17: SW/4

- (h) Extend the Kemnitz-Wolfcamp Pool to include:

TOWNSHIP 16 SOUTH, RANGE 33 EAST, NMPM  
Section 26: NE/4

- (i) Extend the South Leo-Grayburg Pool to include:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM  
Section 36: NE/4

- (j) Extend the Pearl-Queen Pool to include:

TOWNSHIP 19 SOUTH, RANGE 35 EAST, NMPM  
Section 21: SW/4  
Section 28: NW/4

- (k) Extend the San Simon Pool to include:

TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM  
Section 28: SW/4  
Section 33: NW/4

- (l) To reconsider the designation and limits of the South Sawyer-San Andres Pool.

CASE 1474:

Northwestern New Mexico Nomenclature case calling for an order creating a new pool, extending existing pools and changing the designation of certain pools in Rio Arriba, San Juan and McKinley Counties, New Mexico.

- (a) Create a new gas pool for Paradox production, designated as the Blue Hill-Paradox Pool, and described as:

TOWNSHIP 31 NORTH, RANGE 18 WEST, NMPM  
Section 1: NW/4  
Section 2: NE/4

TOWNSHIP 32 NORTH, RANGE 18 WEST, NMPM

Section 35: SE/4

Section 36: SW/4

- (b) Extend the Aztec-Pictured Cliffs Pool to include:

TOWNSHIP 30 NORTH, RANGE 12 WEST, NMPM

Section 1: S/2

Section 12: NE/4

- (c) Extend the Fulcher Kutz-Pictured Cliffs Pool to include:

TOWNSHIP 29 NORTH, RANGE 12 WEST, NMPM

Section 6: SW/4

- (d) Extend the Gavilan-Pictured Cliffs Pool to include:

TOWNSHIP 25 NORTH, RANGE 2 WEST, NMPM

Section 23: SW/4

Section 26: NW/4

- (e) Extend the South Blanco-Pictured Cliffs Pool to include:

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM

Section 7: NE/4

Section 8: SW/4

- (f) Extend the Blanco Mesaverde Pool to include:

TOWNSHIP 27 NORTH, RANGE 8 WEST, NMPM

Section 6: All

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 5: All

- (g) Extend the Angels Peak-Dakota Pool to include:

TOWNSHIP 27 NORTH, RANGE 10 WEST, NMPM

Section 27: S/2

Section 34: All

- (h) Extend the East Companero-Dakota Pool to include:

TOWNSHIP 27 NORTH, RANGE 4 WEST, NMPM

Section 18: All

- (i) Extend the North Los Pinos-Dakota Pool to include:

TOWNSHIP 32 NORTH, RANGE 6 WEST, NMPM

Section 20: N/2

TOWNSHIP 32 NORTH, RANGE 7 WEST, NMPM

Section 23: NE/4

- (j) Extend the Bisti-Lower Gallup Oil Pool to include:

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 15: SE/4

TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM

Section 19: SE/4

Section 30: N/2

- (k) Extend the Verde-Gallup Oil Pool to include:

TOWNSHIP 31 NORTH, RANGE 14 WEST, NMPM

Section 8: SW/4

Section 30: NW/4

- (l) Change the official designation of the following described pools:

PRESENT DESIGNATION

Angels Peak Pool  
Bloomfield Oil Pool  
Fulcher-Kutz (Pictured  
Cliffs) Pool  
Gavilan Pool  
Lindrith Oil Pool  
North Los-Pinos-Dakota  
Pool  
South Los-Pinos-Dakota Pool  
Oswell Oil Pool  
Red Mountain Oil Pool  
  
Stoney Butte (Dakota) Oil Pool  
Table Mesa Oil Pool  
Wyper Oil Pool  
Otero Graneros-Dakota Pool

PROPOSED REVISION

Angels Peak-Dakota Pool  
Bloomfield-Farmington Oil Pool  
Fulcher Kutz-Pictured Cliffs  
Pool  
Gavilan-Pictured Cliffs Pool  
Lindrith-Dakota Oil Pool  
North Los Pinos-Dakota  
Pool  
South Los Pinos-Dakota Pool  
Oswell-Farmington Oil Pool  
Red Mountain-Mesaverde Oil  
Pool  
Stoney Butte-Dakota Oil Pool  
Table Mesa-Dakota Oil Pool  
Wyper-Farmington Oil Pool  
Otero-Graneros Dakota Pool

CONTINUED CASES

CASE 1053:

Application of the Oil Conservation Commission upon its own motion, at the request of the State Engineer, for an order prescribing rules and regulations to govern the disposal of salt water in areas of Lea County, New Mexico. The Commission desires to formulate rules and procedures which will result in the efficient disposal of salt water and which will eliminate the practice of surface disposal of large volumes of oil field brines in order to prevent the contamination of the freshwater bearing horizons in Lea County, New Mexico.

CASE 1440:

Application of Skelly Oil Company for an order promulgating temporary special rules and regulations for the Otero-Gallup Oil Pool in Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating temporary special rules and regulations for the Otero-Gallup Oil Pool in Rio Arriba County, New Mexico, to provide for 80-acre proration units, well spacing, and such other provisions as the Commission may deem necessary and proper.

June 2, 1958

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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 THE STATE OF NEW  
MEXICO FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 1473  
Order No. R-1210

THE APPLICATION OF THE OIL  
CONSERVATION COMMISSION UPON  
ITS OWN MOTION FOR AN ORDER  
EXTENDING AND REDESIGNATING  
CERTAIN POOLS IN LEA AND EDDY  
COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on June 18, 1958, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 26<sup>th</sup> day of June, 1958, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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 there is need for certain extensions to the Atoka Pool, the Grayburg-Jackson Pool, the West Henshaw-Grayburg Pool and the South Leo-Grayburg Pool in Eddy County, New Mexico, to the Blinbry Gas Pool, the Eumont Gas Pool, the Gladiola Pool, the Hare Pool, the Kennitz-Wolfcamp Pool, the Pearl-Queen Pool and the San Simon Pool in Lea County, New Mexico. Further, that that part of Case 1473 dealing with the proposed redesignation of the South Sawyer-San Andres Pool, Lea County, New Mexico, should be continued to the July 16, 1958 regular Commission hearing.

IT IS THEREFORE ORDERED:

(a) That the Atoka Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM  
Section 23: N/2 NW/4



(b) That the Blinebry Gas Pool in Lea County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM  
Section 29: W/2

(c) That the Eumont Gas Pool in Lea County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 19 SOUTH, RANGE 36 EAST, NMPM  
Section 1: E/2

(d) That the Gladiola Pool in Lea County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 11 SOUTH, RANGE 38 EAST, NMPM  
Section 29: SE/4  
Section 32: NE/4

(e) That the Grayburg-Jackson Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM  
Section 19: SE/4

(f) That the Hare Pool in Lea County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM  
Section 4: NW/4

(g) That the West Henshaw-Grayburg Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 16 SOUTH, RANGE 30 EAST, NMPM  
Section 3: Lots 19 and 22  
Section 17: SW/4

(h) That the Kennitz-Wolfcamp Pool in Lea County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 16 SOUTH, RANGE 33 EAST, NMPM  
Section 28: E/2

(i) That the South Leo-Grayburg Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM  
Section 36: NE/4

-3-

Case No. 1473  
Order No. R-1210

(j) That the Pearl-Queen Pool in Lea County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 19 SOUTH, RANGE 35 EAST, NMPM

Section 29: NE/4  
Section 21: SW/4  
Section 22: N/2 SW/4  
Section 28: NW/4

(k) That the San Simon Pool in Lea County, New Mexico, as heretofore classified, defined, and described, be and the same is hereby extended to include therein:

TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM

Section 28: SW/4  
Section 33: NW/4

(l) That the proposed redesignation of the South Sawyer-San Andres Pool in Lea County, New Mexico, be and the same is hereby continued to the July 16, 1958 regular Commission hearing.

IT IS FURTHER ORDERED:

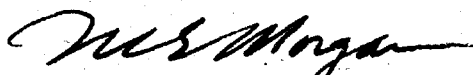
That the effective date of this order and of all the extensions and continuations included herein shall be July 1, 1958.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

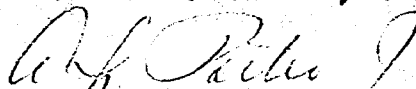
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



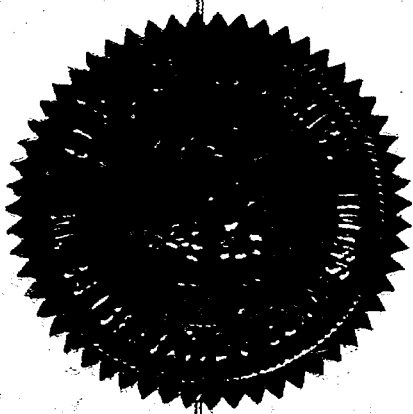
EDWIN L. MECHEM, Chairman



MURRAY E. MORGAN, Member



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



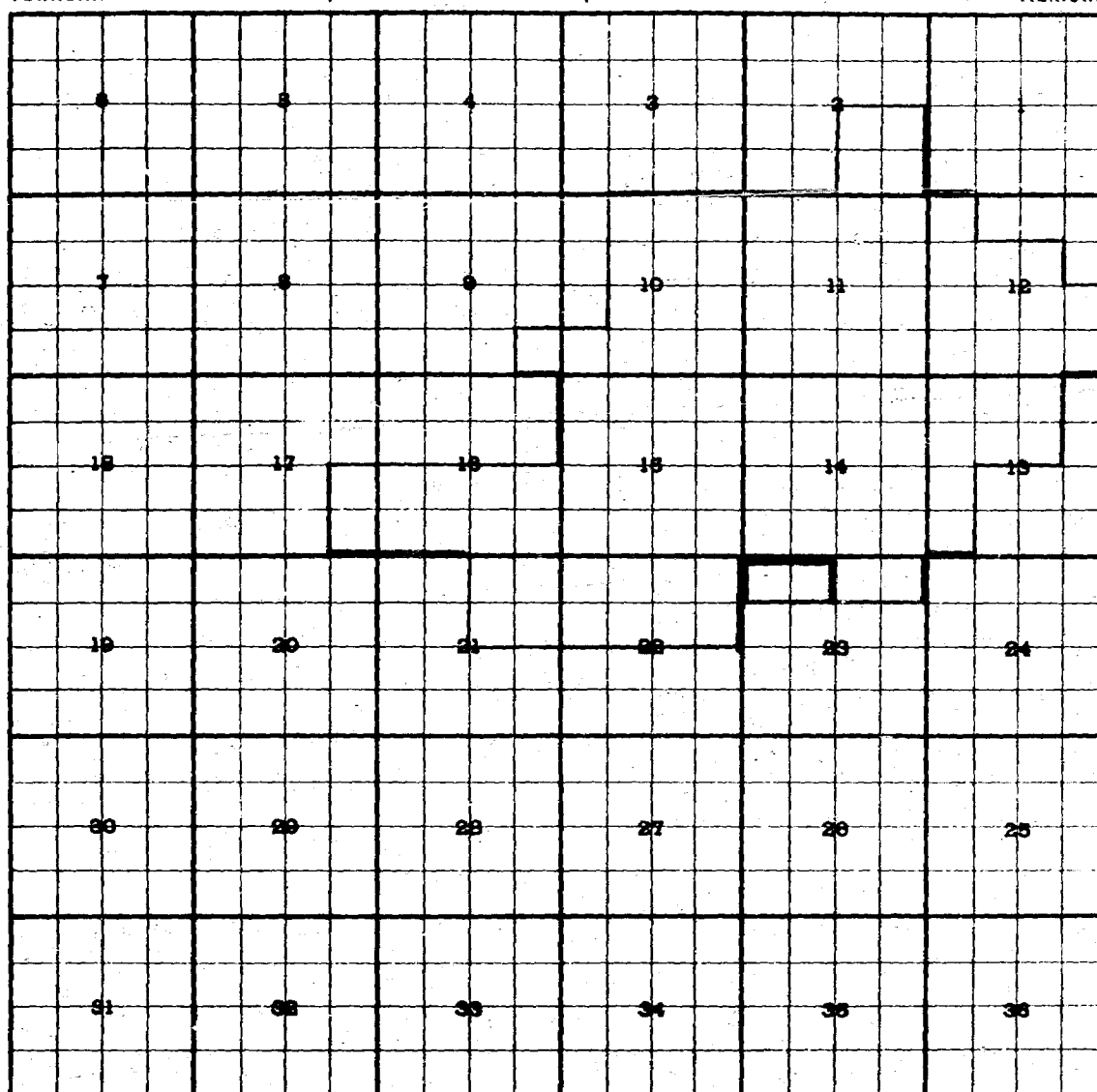
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Case 1473: (A) Extension of an existing pool

County EDDY Pool ATOKA

0-5 San Andres

TOWNSHIP 18 South, RANGE 26 East, NEW MEXICO PRINCIPAL MERIDIAN



Purpose: One completed well capable of producing

Pool Boundary colored in Red:

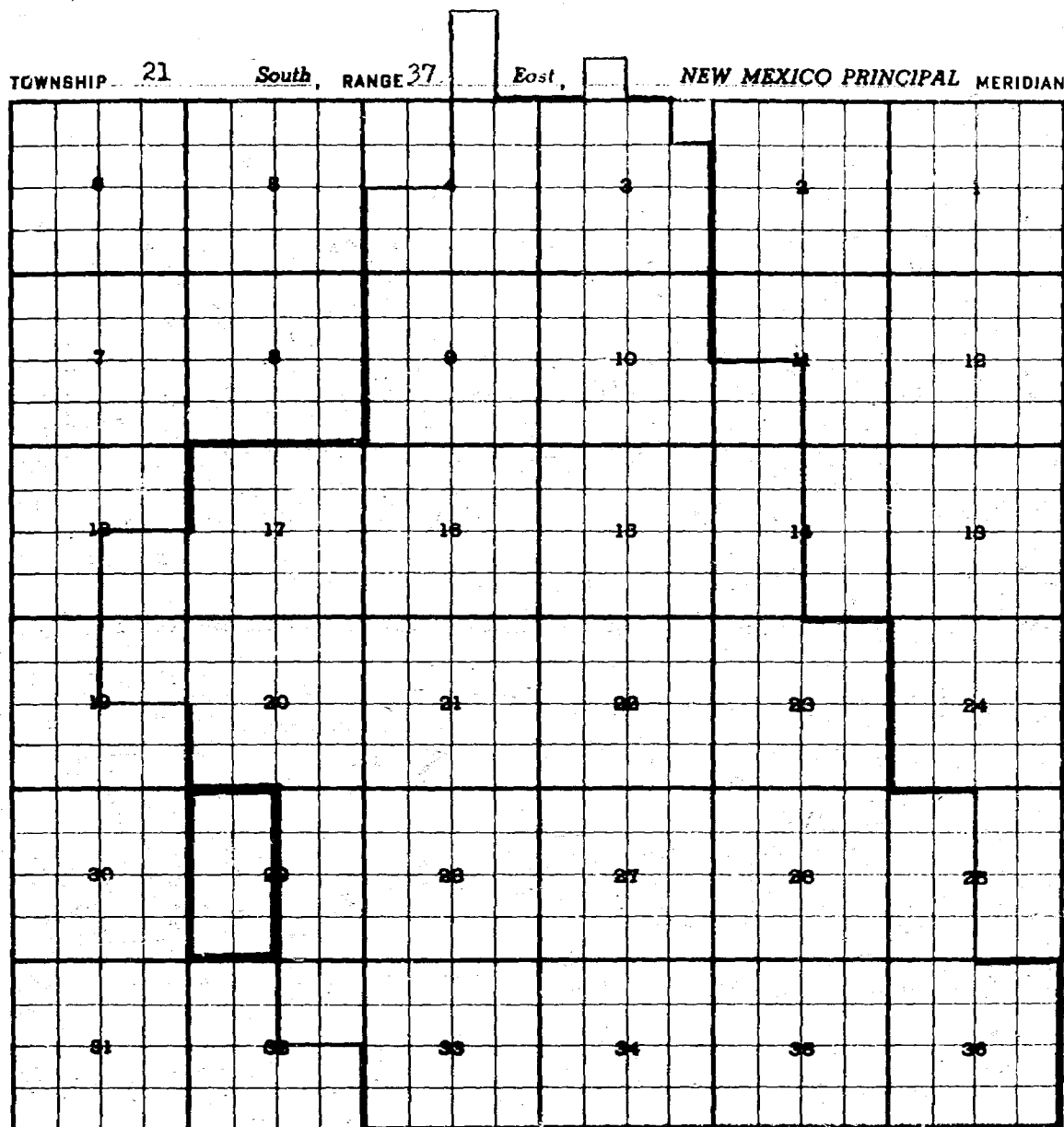
Proposed Extension colored in Green: Section 23: 11/2 NW/4

Pan American Pet. Corp. - C. R. Martin #1 in Unit C of Sec. 23-18-26

Comp. in San Andres 4/15/58. Top perf. 1584

Case 1473: (B) Extension of an existing pool

County LEA Pool BLINEBRY GAS  
5-6 Blinebry



Purpose: One completed well capable of producing

Pool Boundary Colored in Red:

Proposed Extension colored in Green: W/2 of Section 29

Sinclair Oil & Gas Co. - H. S. Turner #3 in Unit N of Sec. 29-21-37

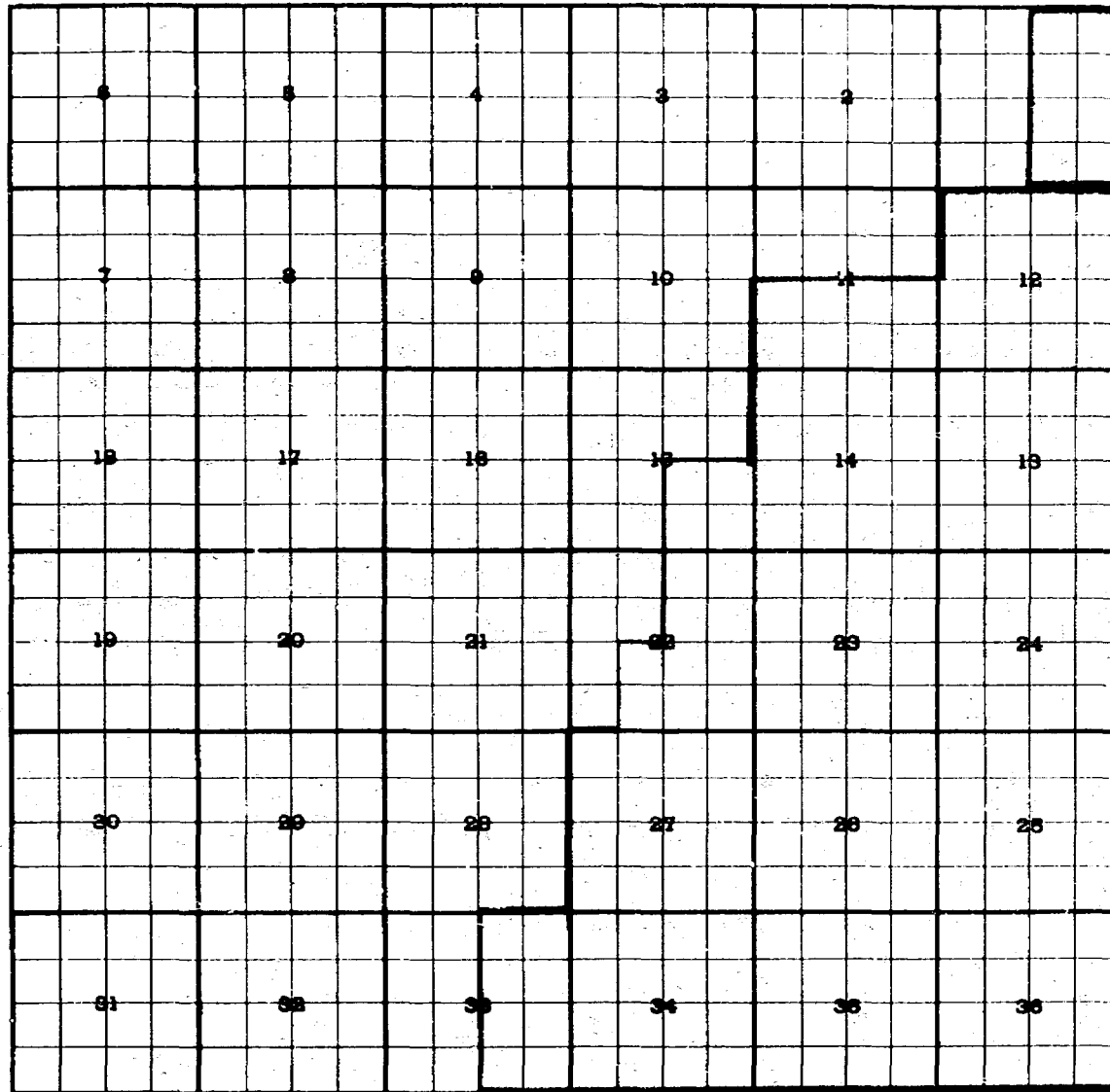
Comp. in Blinebry 10/31/57. Top perf 5567.

Case 1473: (C) Extension of an existing pool

County LEA Pool EUMONT GAS

O-5 Yates, Seven Rivers, & Queen

TOWNSHIP 19 South, RANGE 36 East, NEW MEXICO PRINCIPAL MERIDIAN



Purpose: Two completed wells capable of producing

Pan American Pet. Corp.-State B #1 in Unit H of Sec. 1-19-36

Comp. in Queen 3/22/58. Top perf. 3930

Pan American Pet. Corp.-State B #2 in Unit A of Sec. 1-19-36

Comp. in Penrose 5/26/58. Top perf. 3992

Pool Boundary Colored in Red

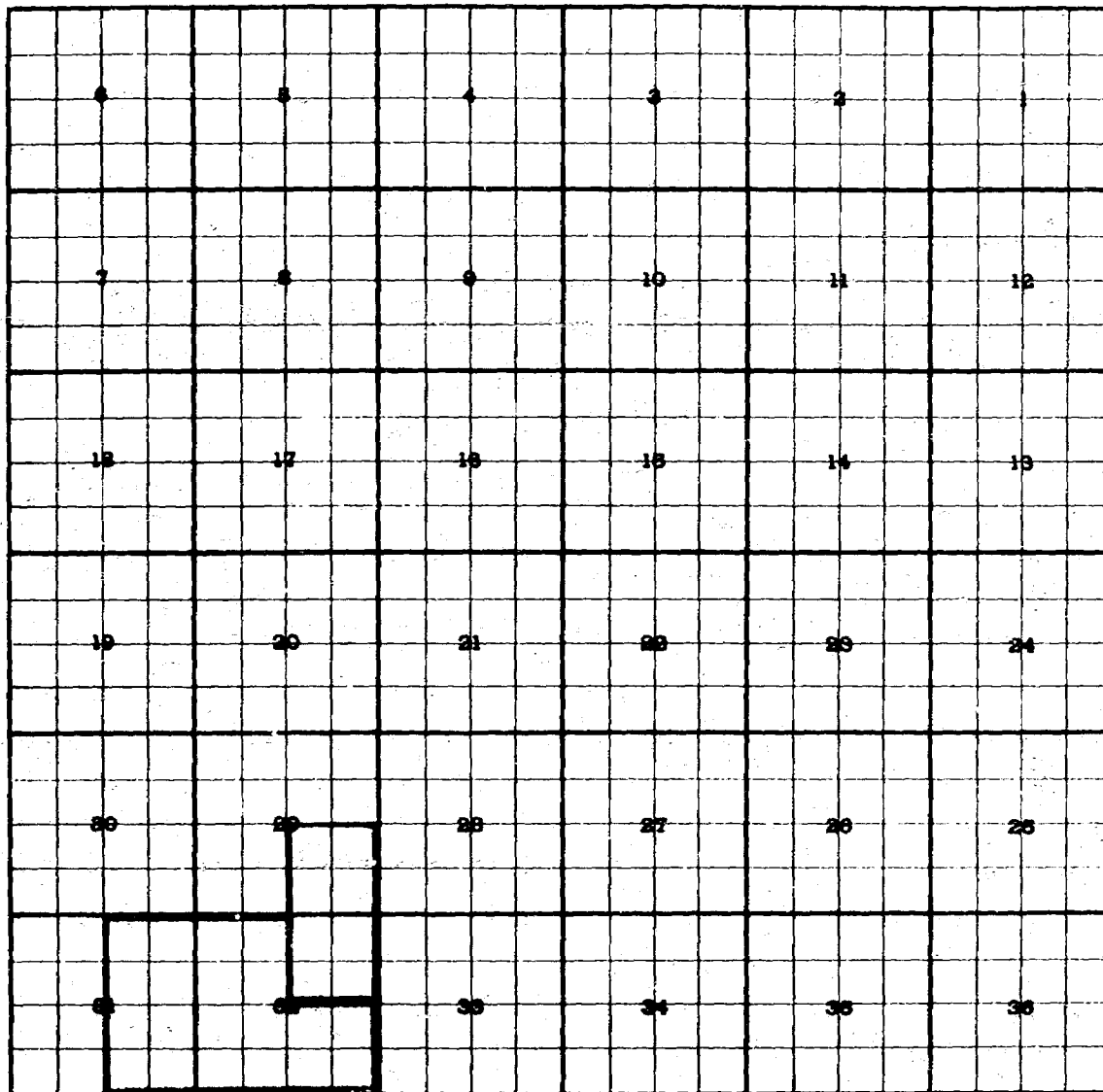
Proposed Extension colored in Green: E/2 of Section 1

Case 1473: (D) Extension of an existing pool

County LEA Pool GLADIOLA

12-13 Devonian

TOWNSHIP 11 South, RANGE 38 East, NEW MEXICO PRINCIPAL MERIDIAN



Purpose: One completed well capable of producing

Shell Oil Co.-Ivey #1 in Unit O of Sec. 29-11-38

Comp. in Devonian 4/4/58. Top Perf. 12,068.

Pool Boundary Colored in Red:

Proposed Extension Colored in Green: SE/4 of Section 29

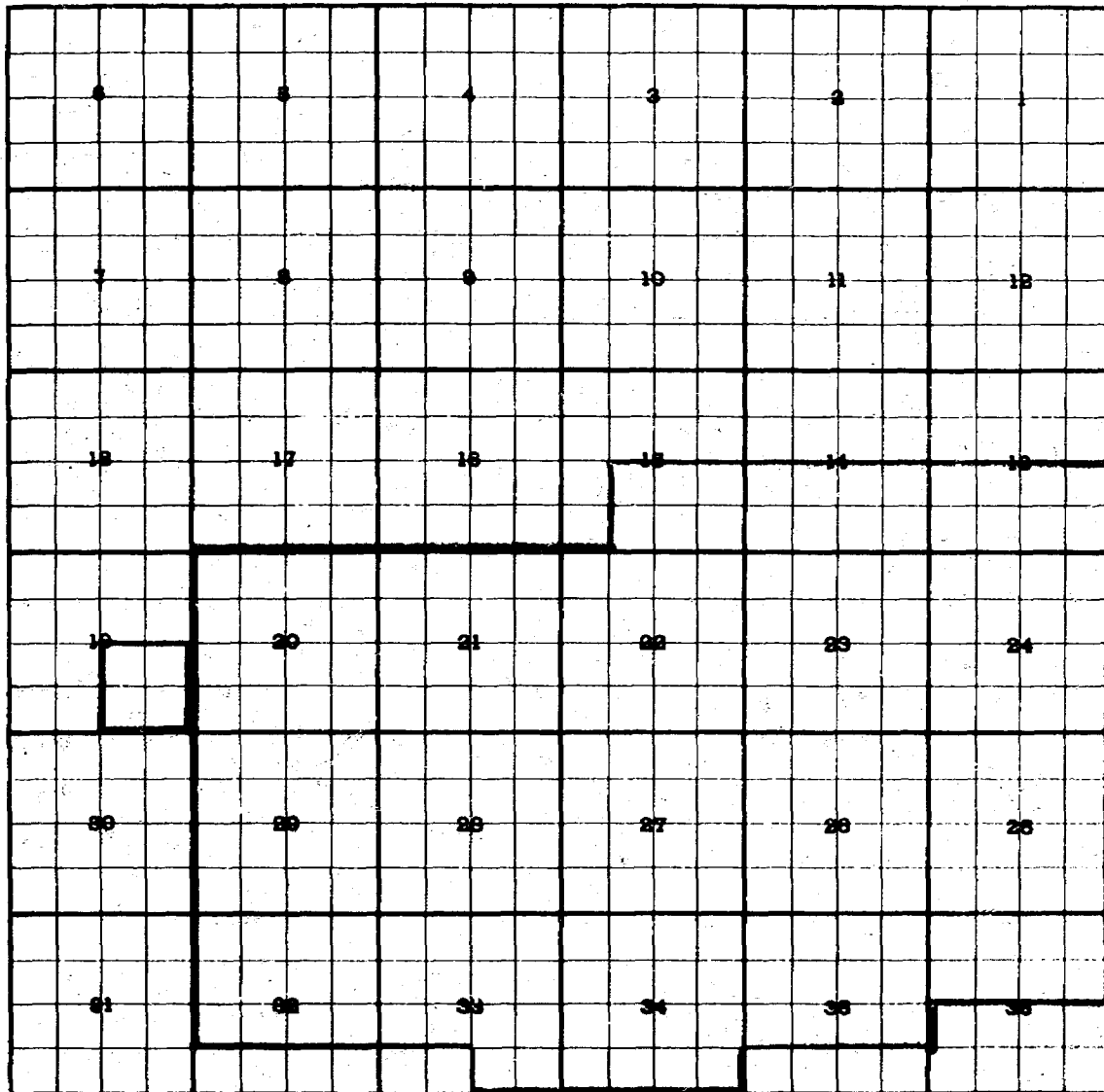
NE/4 of Section 32

Case 1473: (E) Extension of an existing pool

County EDDY Pool GRAYBURG-JACKSON

0-5 Queen, San Andres, & Grayburg

TOWNSHIP 17 South, RANGE 29 East, NEW MEXICO PRINCIPAL MERIDIAN



Purpose: One completed well capable of producing

Continental Oil Co.-State S-19 #2 in Unit I of Sec. 19-17-29

Comp. in Grayburg 10/27/57. Top perf. 2289

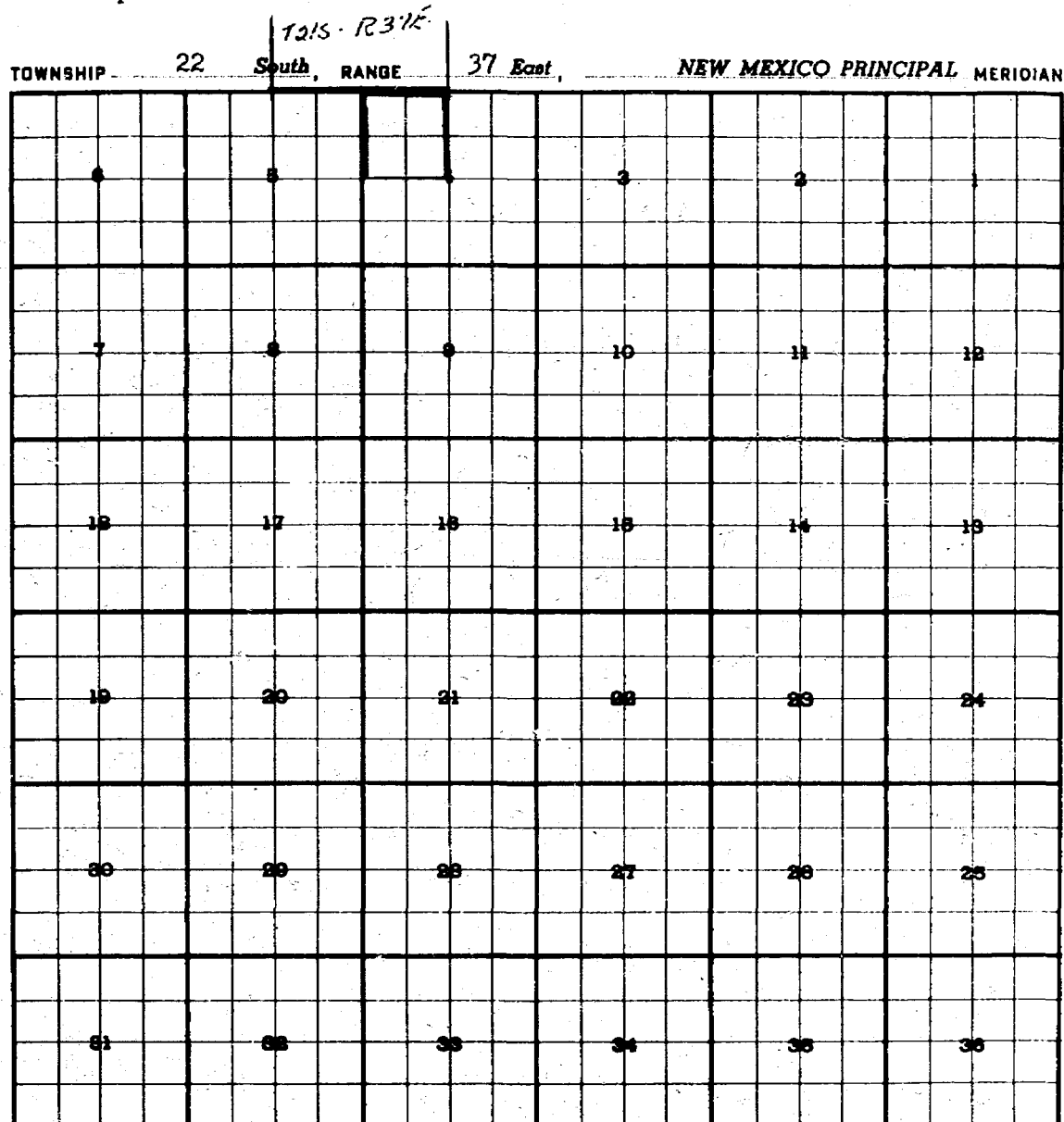
Pool boundary colored in Red:

Proposed Extension Colored IN Green: SE/4 of Section 19

Case 1473: (F) Extension of an existing pool

County LEA Pool HARE

7-8 Simpson



Purpose: Two Completed wells capable of producing

Shell Oil Co.-Rinewalt #3 in Unit F of Sec. 4-22-37

Comp. in McKee 4/20/58. Top perf. 7380.

Shell Oil Co.-Rinewalt #4 in Unit C of Sec. 4-22-37

Comp. in McKee 5/17/58. Top perf. 7402

Pool Boundary Colored in Red:

Proposed Extension Colored in Green: NW/4 of Section 4



Case 1473: (G) Extension of an existing pool

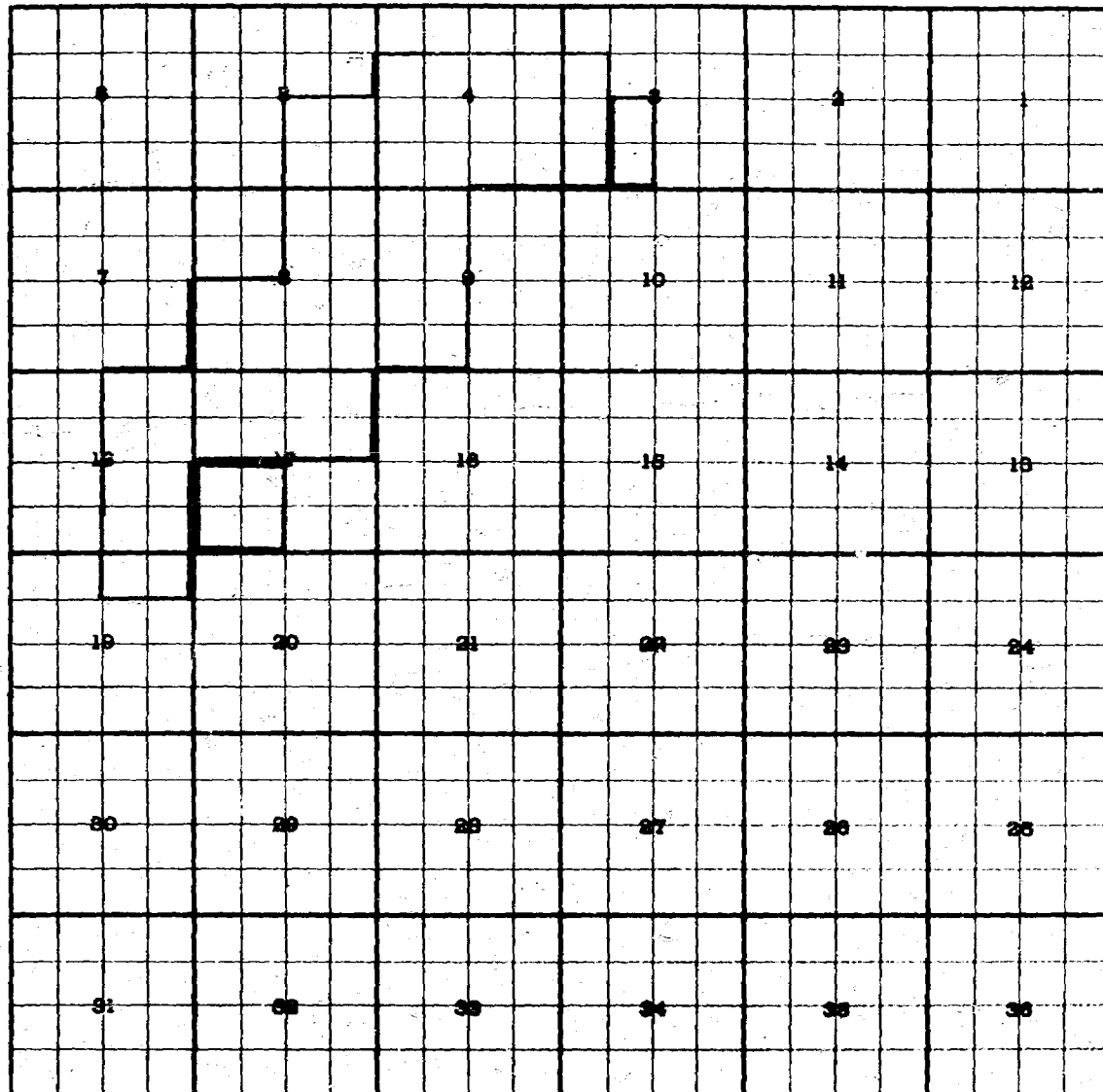
County EDDY

PART OF THIS UNADVERTISED

Pool WEST HENSHAW-GRAYBURG

C-5 Grayburg

TOWNSHIP 16 South, RANGE 30 East, NEW MEXICO PRINCIPAL MERIDIAN



Purpose: Two completed wells capable of producing

John H. Trigg-Federal D #8-17 in Unit L of Sec. 17-16-30

Comp. in Grayburg 4/10/58. ~~TEX 1011~~ Depth to casing shoe 2785.

THIS PART UNADVERTISED: General American Oil Co. of Tex.-Stablein #4 in Unit S

of Sec. 3-16-30. Comp in Premier 5/29/58. Open hole 2863'

Pool boundary Colored in Red:

Proposed Extension Colored in Green: SW/4 of Section 17.

UNADVERTISED: Lots 19 & 22 of Section 3

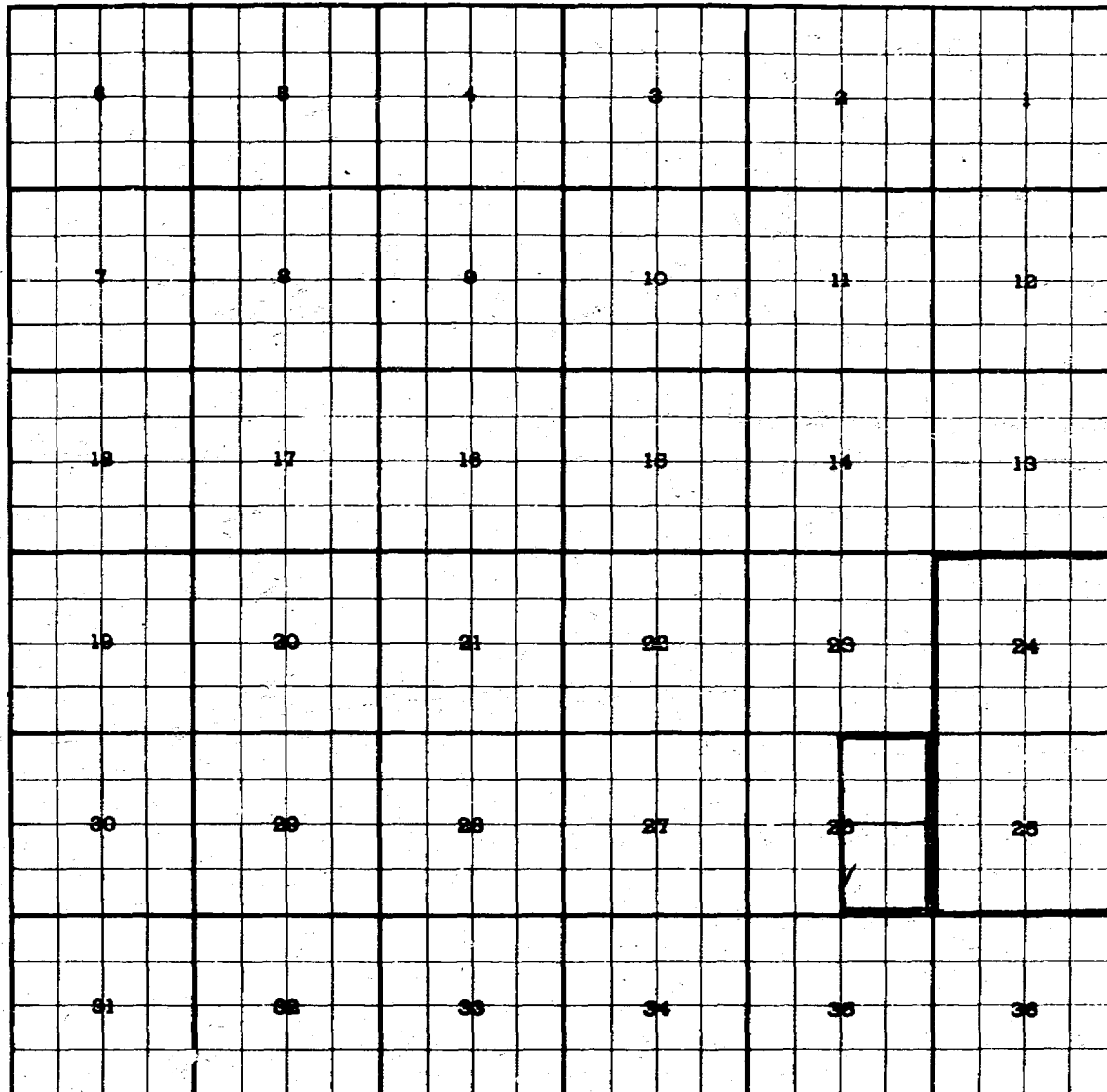
Case 1473: (H) Extension of an existing pool

PART OF THIS UNADVERTISED

County LEA Pool KEMNITZ-WOLFCAMP

10-11 Wolfcamp

TOWNSHIP 16 South, RANGE 33 East, NEW MEXICO PRINCIPAL MERIDIAN



Purpose: Two completed wells capable of producing

Forest Oil Corp.-State A #1 in Unit A of Sec. 26-16-33

Comp. in Wolfcamp 1/19/58. Top perf. 10,676

THIS PART UNADVERTISED: Forest Oil Corp.-State A #2 in Unit I of Sec. 26-16-33

Comp in Wolfcamp 5/5/58. Top perf. 10,789.

Pool Boundary Colored in R.d:

Proposed Extension Colored in Green: NE/4 of Section 26

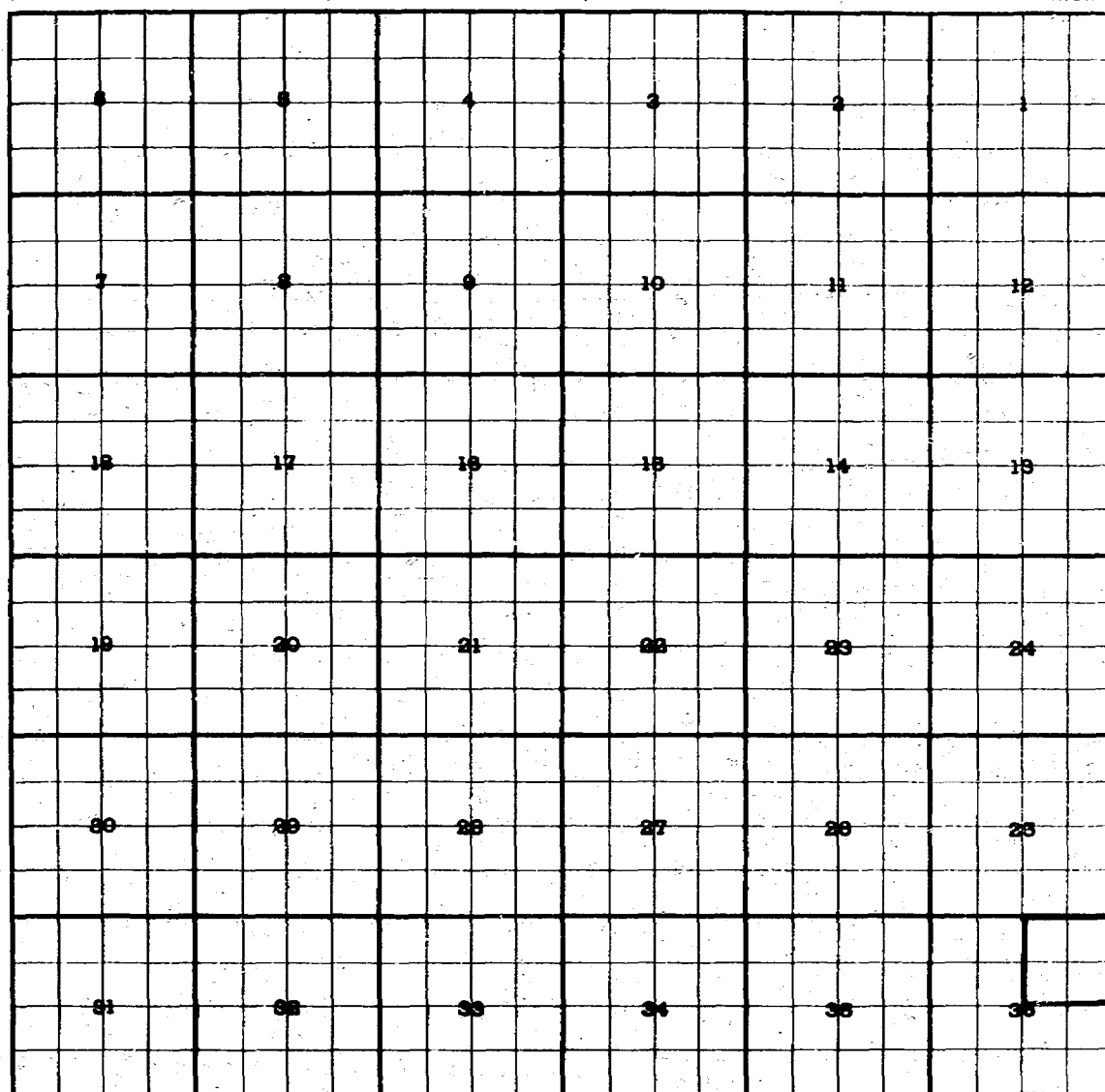
UNADVERTISED: SE/4 of Section 26

CASE 1473: (I) Extension of an existing pool

County EDDY Pool SOUTH LEO-GRAYBURG

O-5 Grayburg

TOWNSHIP 18 South, RANGE 29 East, NEW MEXICO PRINCIPAL MERIDIAN



Purpose: One completed well capable of producing

Leonard Oil Company-State #1819 #1 in Unit H of Sec. 36-18-29

Comp. in Grayburg 4/17/58. Top perf 2783.

Pool boundary colored in Red.

Proposed extension colored in Green? NE/4 of Section 36

Case 1473: (J) Extension of an existing pool

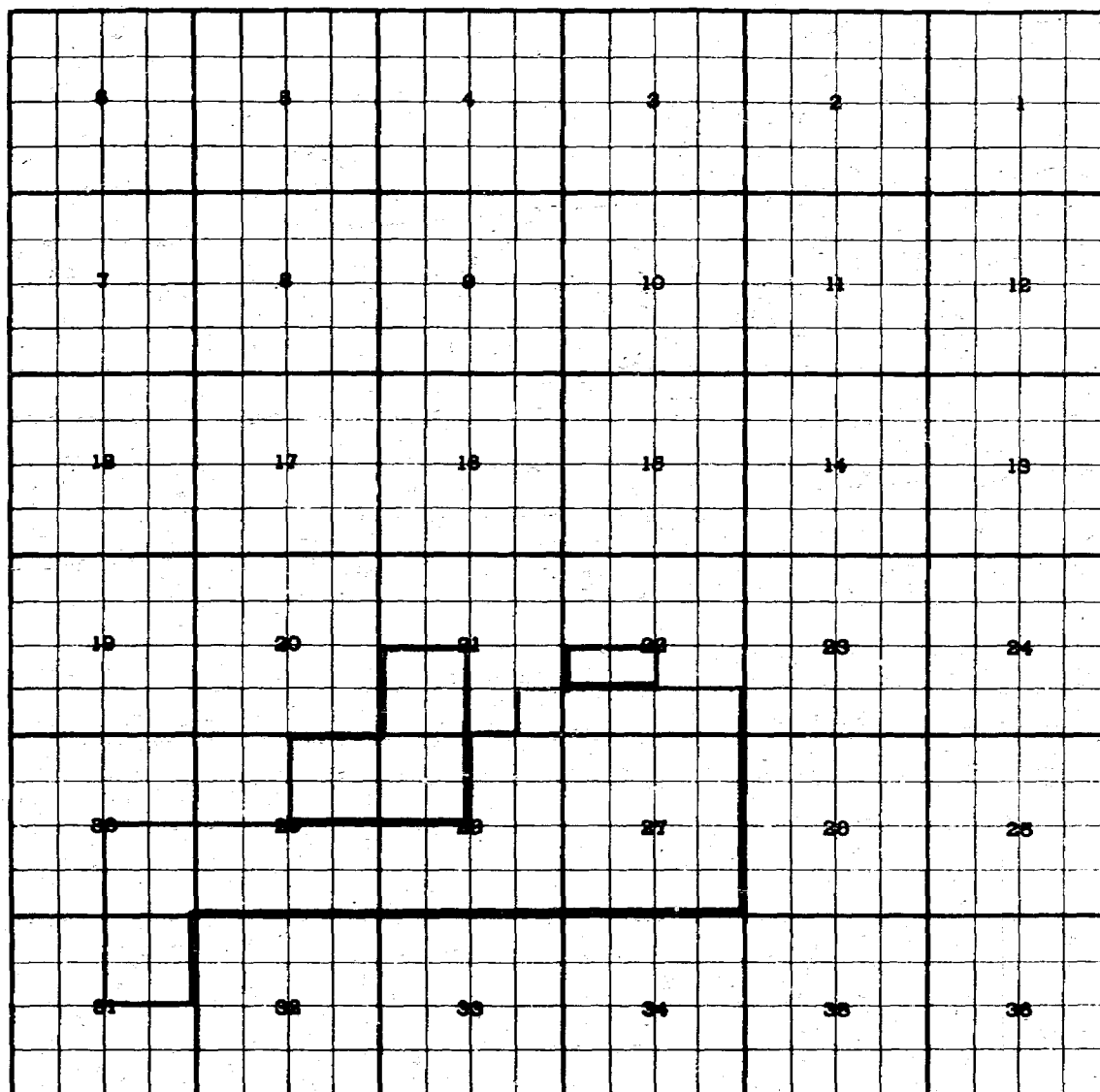
County

LEA

PART THIS UNADVERTISED  
Pool PEARL-QUEEN

O-5 Queen

TOWNSHIP 19 South, RANGE 35 East, NEW MEXICO PRINCIPAL MERIDIAN



Purpose: Six completed wells capable of producing

Jake L. Hamon-State E-8182 #1, Unit C, Sec. 28-19-35, Comp. in Queen 4/30/58. Perf. 4715'

State E-8182 #2, Unit E, Sec. 28-19-35, Comp. in Queen 5/14/58. Perf. 4734'

State E-8182 #4, Unit F, Sec. 28-19-35, Comp. in Queen 5/20/58. Perf. 4884'

Shell Oil Co.-McIntosh E #1, Unit N, Sec. 21-19-35, Comp. in Queen 4/19/58. Perf. 4743'

THIS PART UNADVERTISED: Shell Oil Co.-McIntosh B #1, Unit L, Sec. 22-19-35. Comp. in Queen 5/8/58. Top perf. 4762'.

Cactus Drlg. Co.-Parks #1, Unit F, Sec. 29-19-35. Comp. in Queen 5/31/58. Casing Shoe 4932'.

POOL Boundary Colored in Red:

Proposed Extension Colored in Green: SW/4 of Section 21  
NW/4 of Section 28

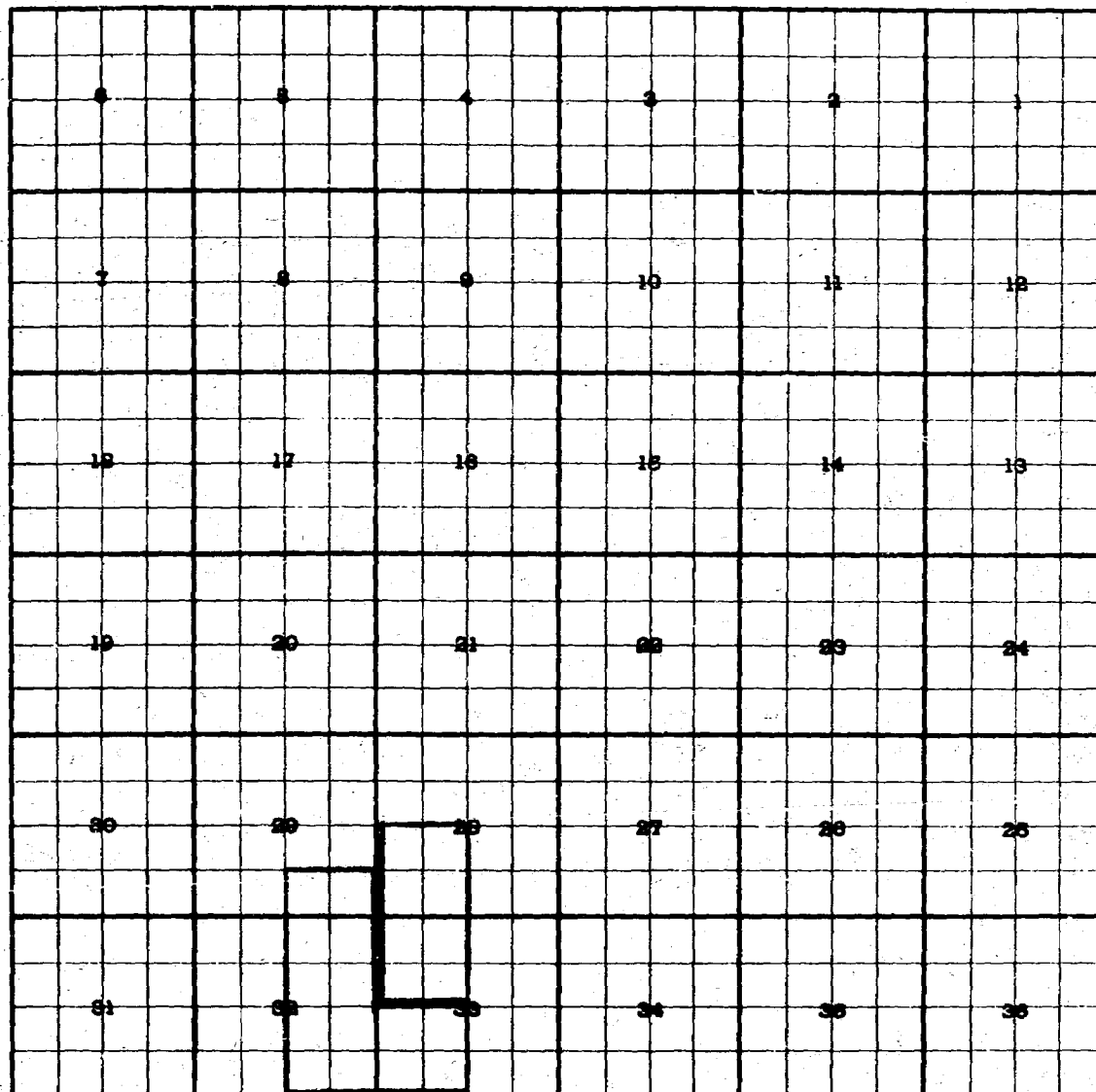
UNADVERTISED: N/2 SW/4 of Section 22  
NE/4 of Section 29

Case 1473: (K) Extension of an existing pool

County LEA Pool SAN SIMON

0-5 Yates

TOWNSHIP 21 South, RANGE 35 East, NEW MEXICO PRINCIPAL MERIDIAN



Purpose: One completed well capable of producing

Resler & Sheldon-Phillips State #B-1 in Unit L of Sec. 28-21-35

Comp. in Yates 2/8/58. Top perf. 3850'.

Pool Boundary Colored in Red:

Proposed Extension Colored in Green: SW/4 of Section 28

NW/4 of Section 33

*W. H. H. H.  
Anteria*

In the matter of the application of the Oil Conservation Commission of New Mexico upon its own motion for an order for the extension of existing pools in Lea and Eddy Counties, New Mexico, and giving notice to all persons and parties interested in the subject matter thereof to appear and show cause why such extensions should not be made.

(a) Extend the Atoka Pool boundary in Eddy County, New Mexico, to include therein:

Twp. 18 South, Range 26 East,  
N/2 NW/4 of Section 23

~~and such other, etc.~~

(b) Extend the Blinbry Gas Pool boundary in Lea County, New Mexico, to include therein:

Twp. 21 South, Range 37 East,  
W/2 of Section 29

~~and such other, etc.~~

(c) Extend the Eumont Gas Pool boundary in Lea County, New Mexico, to include therein:

Twp. 19 South, Range 36 East,  
E/2 of Section 1

~~and such other, etc.~~

(d) Extend the Gladiola Pool boundary in Lea County, New Mexico, to include therein:

Twp. 11 South, Range 38 East,  
SE/4 of Section 29  
NE/4 of Section 32

~~and such other, etc.~~

(e) Extend the Grayburg Jackson Pool boundary in Eddy County, New Mexico, to include therein:

Twp. 17 South, Range 29 East,  
SE/4 of Section 19

~~and such other, etc.~~

*G. G. S. A.*

(f) Extend the Hare Pool boundary in Lea County, New Mexico, to include therein:

Twp. 22 South, Range 37 East,  
NW/4 of Section 4

*5/1/1*  
*OK*

~~and such other, etc.~~

(g) Extend the West Henshaw-Grayburg Pool boundary in Eddy County, New Mexico, to include therein:

Twp. 16 South, Range 30 East,  
SW/4 of Section 17

*X*

~~and such other, etc.~~

(h) Extend the Kemnitz-Wolfcamp Pool boundary in Lea County, New Mexico, to include therein:

Twp. 16 South, Range 33 East,  
NE/4 of Section 26

*X*

~~and such other, etc.~~

(i) Extend the South Leo-Grayburg Pool boundary in Eddy County, New Mexico, to include therein:

Twp. 18 South, Range 29 East,  
NE/4 of Section 36

*X*

~~and such other, etc.~~

(j) Extend the Pearl-Queen Pool boundary in Lea County, New Mexico, to include therein:

Twp. 19 South, Range 35 East,  
SW/4 of Section 21  
NW/4 of Section 28

*OK*  
*3/1/1*  
*3/8*

~~and such other, etc.~~

(k) Extend the San Simon Pool boundary in Lea County, New Mexico, to include therein:

Twp. 21 South, Range 35 East,  
SW/4 of Section 28  
NW/4 of Section 33

*X*

*Lea Co.*

*(1) To reconsider the designation and limits of the South Sawyer-San Andres Pool.*

MISCELLANEOUS WELL DATA

SAWYER CECYSTON  
AREAS

LEA COUNTY AND COCHRAN COUNTY

Coale, & Tabor 1/14/78





RANGE AND AVERAGES OF  
GRAVITIES AND GAS-OIL RATIOS  
BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

Gravities:

Range: <sup>24.6</sup>~~26.2~~ degrees to 34 degrees

Average: 28.4 degrees

Gas-Oil Ratio:

Range: 163 to 1 to 92,359 to 1

Average: 1474 to 1

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: ANDERSON-PRICHARD

Well	Date		Total Depth	G. O. R. Gravity	Perforations or Top Pay	Barrels		Percent Water	Pump or Flow
	Potential					Oil			
Frost No. 1	11/28/56	5108'	163	28.7	4945'-5007'	178.62	0		Flow
Frost No. 2	3/12/57	5056'	4040	29	4995'-5005'	55.89	10		Flow
Frost No. 3	12/27/56	5075'	510	29	4950'-4985'	128.4	0		Flow
Frost No. 4	2/1/57	5060'	1378	29	5014'-5020'	127.13	6		Flow
Frost No. A-1	4/2/57	5080'	562	29.2	4962'-4980' 5006'-5016'	106.21	11		Pump
Frost No. A-2	8/17/57	5056'	3140	29.2	4995'-5005'	67.63	14		Flow
Frost No. A-3	4/1/57	5059'	1185	29.3	4950'-4982'	129.66	15		Flow
Frost No. A-4	5/20/57	5050'	910	29.3	4962'-4986'	165.6	1		Flow
Frost No. A-5	6/22/57	5059'	623	29.8	4934'-4988'	118.62	0		Flow
Frost No. B-1	2/6/58	5073'	370	24.64	4950'-4984'	107.95	0		Pump
Watson No. 1	4/4/58	5093'	562	26.5	5022'-5042'	104.88	21		Pump
Watson No. 2	5/29/58	5052'	991	29.2	5004'-5024'	116.61	0		Flow

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: CHRISTMANN

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
No. 1 Wilson	1/19/58	4996'	244	28.6	4966'-4992'	129.65	2.5	Flow
No. 2 Wilson	2/1/58	5006'	300	28.4	4968'-4996'	239.29	0.6	Flow

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: CITIES SERVICE

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Wilson "J"-1	2/4/57	5031'	2040	27.3	4967'-4984' 4994'-5010'	403	6	Flow
Wilson "J"-2	4/2/57	5028'	492	28.6	4992'-5014'	828	1.0	Flow
Wilson "J"-4	7/3/57	5049'	515	28.9	4989'-5024'	991	3.0	Flow
Wilson "J"-5	7/14/57	5034'	1047	28.9	4996'-5027'	641.70	0.8	Flow

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: DE KALB

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Standefor No. 1	10/24/57	5009'	1875	29	* 4960'	108.30	8	Flow
Standefor No. 2	6/1/58	5010'	401	27.1	* 4959	118.85	0	Pump

\* Open hole completion

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: FROST & FLEMING

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Frost No. 1	7/22/57	5070'	650	29	4882'-5004'	112	1	Flow
Frost No. 2	9/30/57	5083'	400	29	4986'-5012'	103	30	Pump
Frost No. 3	10/8/57	5056'	450	29	5007'-5021'	103	2	Pump

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: FULTON

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Cunningham No. 1	9/8/58	5027'	450	28	4991'-5020'	185.03	8% BS&W	Flow
Pierson No. 1	6/2/58	4996'	250	28	4960'-4990'	62	48	Pump
Effie Wilson No. 1	5/4/58	5015'	550	28	4984'-5012'	287.21	1	Flow



COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: HUMBLE

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Sherrill No. 1	11/9/57	4993'	92,359	28	4967'-4980'	13.61	0	Flow

COMPLETION DATA, BUCKSHOT FIELD, COCHPAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: KATZ

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations Or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Cunningham No. 1	6/5/57	5044' PB	403	28.6	4993'-5000' 5003'-5030'	114.13	25	Pump

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: MONTEREY

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Frost No. 31-8	6/3/57	5038'PB	348	29.4	5004'-5024	293.09	3	Flew
Frost No. 41-8	6/30/57	5032'PB	1032	28.9	5008'-5028'	148.5	4	Flew

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: MURCHISON AND MALLORY

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Fred Frost No. 1	1/4/57	5003'	1870	28	4944'	131	4	Flow
Fred Frost No. 2	3/7/57	4995'	1885	28.5	4958'-4995'	140	10	Flow
Fred Frost No. B-1	7/14/57	5037'	968	29.1	5016'-5037'	108.27	12	Flow
J. W. Frost No. 1	6/9/57	5047'	650	28.4	4940'	121.46	7	Flow
J. W. Frost No. 2	12/12/56	5003'	250	28	4963'-5003'	123	22	Pump
J. W. Frost No. 3	2/14/57	5000'	1450	27.5	4974'	263	10	Flow
J. W. Frost No. 4	2/6/57	5003'	557	28.5	4952'	132.48	4	Flow
J. W. Frost No. 5	4/1/57	5039'	650	28	5011'	119.89	0	Flow
J. W. Frost No. B-1	6/9/57	5047'	650	28.4	4940'-5047'	121.46	7	Flow
J. W. Frost No. B-2	9/13/57	5001'	236	28.3	4984'	105.50	0	Pump
Frost No. C-1	8/19/57	5036'	325	29.3	4960'-4974'	92.03	0.2	Pump
Frost No. C-2	7/15/57	4999'	515	29.1	4965'	105.48	0.3	Pump
Frost No. C-3	4/15/58	5014'	595	29	4975'-5014'	105.50	0	Flow
Frost No. D-1	2/12/58	5025'	1437	28.4	5002'-5025'	105.52	0	Flow

\* Open hole completion

Page No. 2

OPERATOR: MURCHISON AND MALLORY

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pry	Barrels Oil	Percent Water	Pump or Flow
Sherrill No. 1	3/3/58	5013'	595	27.5	4981'-4988'	105	0	Flow
Sherrill No. 2	6/2/58	4994'	600	27.7	4971' *	111.30	0.3	Pump
Sherrill No. 3	7/1/58	4991'	460	27.6	4959' *	105	0	Pump
Sherrill No. B-1	3/26/58	5017'	846	28.5	4980' *	103.12	0	Flow
Sherrill No. C-1	5/28/58	5025'	992	27.9	5014' *	112	0.2	Flow
Sherrill No. C-2	7/2/58	5025'	1097	28.9	5019' *	102.78	0	Flow
Murray Watson No. 1	3/22/57	5021'	565	31		135	5	Flow
Murray Watson No. 2	9/18/57	5050'	560	29.6	5019'-5027'	105.56	0	Flow

\* Open Hole completion

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: RUTTER & WILBANKS

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Frost No. A-1	5/15/57	5049'PB	300	26.6	4998'-5010'	112	60	Pump
Frost No. B-1	7/18/57	5117'	300	26.2	5004'-5026'	158	20	Pump
Frost No. B-2	11/3/57	5100'	575	27.3	4996'-5011'	119	15	Pump
Frost No. C-1	12/1/57	5060'	350	28.5	4987'-5000'	108	2	Pump

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: STEKOLL

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
Fract No. 1	3/6/58	5200'	238	29.5	4959'-5040'	139.89	35	Pump

COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: TEXAS COMPANY

Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
J. Markham No. 1	11/17/57	4976'	940	28.2	4946'-4970'	192	0	Flow
J. Markham No. 2	12/13/57	4977'	27	28.9	4946'-4976'	110.40	0.5	Flow
J. Markham No. 3	1/5/58	4987'	800	28.6	4956'-4978'	405.33	5	Flow
J. Markham No. 4	4/25/58	4999'	1230	27.4	4960'-4990'	596.44	0	Flow
J. Markham No. B-1	4/23/58	5007'	490	27.2	4970'-5006'	158.09	3	Pump



COMPLETION DATA, BUCKSHOT FIELD, COCHRAN COUNTY, TEXAS

FILES OF RAILROAD COMMISSION

OPERATOR: TIDEWATER

--	Well	Date Potential	Total Depth	G. O. R.	Gravity	Perforations or Top Pay	Barrels Oil	Percent Water	Pump or Flow
	Cunningham No. 1	3/25/58	5070'	348	34	4993'-5030'	106.19	33	Pump

204 /  
S.75



SUMMARY, CORE DATA

T-9-S, R-38-E, LEA COUNTY & BUCKSHOT FIELD, COCHRAN COUNTY

	<u>Range</u>	<u>Average</u>
Permeability	1.1 to 7.7 md.	4.2 md.
Porosity	5.5 to 10.9	7.58%
Oil Saturation	12.7 to 24.1	17.67%
Water Saturation	18.3 to 38	31.25%

CORE ANALYSIS DATA

T-9-S, R-34-E, LEA COUNTY & BUCKENOT FIELD, COCHESMAN COUNTY

	Western		Western		Robinson		Robinson		DeKalb		Andersen		Andersen		Andersen		Rutter	
	Reven	Great	Western	Atlantic	Union	Warren	Warren	Warren	DeKalb	DeKalb	Andersen	Andersen	Andersen	Andersen	Andersen	Andersen	Andersen	Andersen
Average Permeability: (Max)	1.1	5.4	5.7	7.7	7.0	7.0	7.0	7.0	2.6	2.8	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
Millidarcys: (90%)	0.7	0.2	2.4															
Average Porosity: Percent:	7.8	7.2	8.2	7.4	8.9	8.9	8.9	8.9	10.9	5.5	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Average Residual Oil Saturation: Percent of Pore Space:	14.0	13.5	12.7	34.1	20.8	20.8	20.8	20.8	30.7	18.3	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
Average Connate Water Saturation: Percent of Pore Space:	34.9	30.6	34.6	18.3	23.6	23.6	23.6	23.6	23.2	36.3	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
Oil Gravity: API	32	28	29						32	32	32	32	32	32	32	32	32	32

Cities    Morris Oil    Marchion-  
Services J-1 #1 Frost    Malbury #2 Frost

Average Permeability: (Max)	3.8	1.6	1.2
Millidarcys: (90%)	1.1	0.9	0.8
Average Porosity: Percent:	7.2	6.9	7.8
Average Residual Oil Saturation: Percent of Pore Space:	17.3	18.3	19.0
Average Connate Water Saturation: Percent of Pore Space:	32.2	36.5	34.0
Oil Gravity: API	28	32	28

4  
19



**BOTTOM HOLE PRESSURE DATA,  
EUCKSHOT FIELD, COCHRAN COUNTY, TEXAS  
FILES OF RAILROAD COMMISSION**

April 10, 1957

Cities Service:

	<u>Top</u> <u>Pay</u>	<u>Shut in</u> <u>Hours</u>	<u>B.H.</u> <u>Temp.</u>	<u>Test</u> <u>Depth</u>	<u>Observed</u> <u>Pressure</u>	<u>Datum</u> <u>Plane</u>	<u>Corrected</u> <u>Pressure</u>
Wilson J-1	-1081	24	114	-1080	1567	-1080	1567
Wilson J-2	-1080	24	112	-1080	1601	-1080	1601

December 9, 1957

Anderson-Prichard:

	<u>Top</u> <u>Pay</u>	<u>Shut in</u> <u>Hours</u>	<u>B.H.</u> <u>Temp.</u>	<u>Test</u> <u>Depth</u>	<u>Observed</u> <u>Pressure</u>	<u>Datum</u> <u>Plane</u>	<u>Corrected</u> <u>Pressure</u>
Jack Frost No. 1	4945	77	115	4997	1436	-1080	1436
Jack Frost No. 2	4995	76	115	5000	1496	-1080	1496
Jack Frost No. 3	4950	74	115	4997	1428	-1080	1428
Jack Frost No. 4	5014	73	115	4991	1303	-1080	1303
Frost A No. 1 *	4962	76	NT			-1080	1463
Frost A No. 3 *	4950	76	NT			-1080	1362
Frost A No. 4	4962	74	115	4944	1272	-1080	1291
Frost A No. 5	4954	73	115	4943	1539	-1080	1563

\* Determined by acoustical sounding

Cities Service:

Wilson J-1	-1081	74	115	4993	1443	-1080	1443
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December 9, 1957

Top Pay	Shut in Hours	B.H. Temp.	Test Depth	Observed Pressure	Datum Plane	Corrected Pressure
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Cities Service:

Wilson J-2	-1088	74	115	4994	1448	-1080	1448
Wilson J-3	-1082	73	115	4998	1611	-1080	1611
Wilson J-4	-1081	72	115	4988	1431	-1080	1431
Wilson J-5	-1083	72	115	4993	1422	-1080	1422

Cyrus Frest, Jr., et al:

J. W. Frest No. 1	-1053	75-1/2	115	4992	1331	-1080	1331
J. W. Frest No. 2 *	-1058	72	115	4992	1061	-1080	1061
J. W. Frest No. 3 *	-1077	72	115	4992	740	-1080	740

\* Pumping wells tested by acoustical sounding

Katz Oil Company:

Cunningham No. 1	-1087	72				-1080	1079
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Monterey Oil Company:

Jack Frest No. 31-8	-1103	70.5	115	-1029	1375	-1080	1392
Jack Frest No. 41-8	-1110	70	115	-1028	1397	-1080	1414

Rutter & Wilbanks:

Frest A No. 1	4926	69	115	5000	1395	-1080	1411
Frest B No. 1 *	4943	69				-1080	1546
Frest B No. 2 *	4939	69				-1080	1526
Frest C No. 1 *	4906	69				-1080	936

\* Pumping wells tested by acoustical sounding

December 9, 1957

<u>Top</u> <u>Pay</u>	<u>Shot in</u> <u>Hours</u>	<u>B.H.</u> <u>Temp.</u>	<u>Test</u> <u>Depth</u>	<u>Observed</u> <u>Pressure</u>	<u>Datum</u> <u>Plane</u>	<u>Corrected</u> <u>Pressure</u>
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Texas Company:

Jack Markham No. 1	-1034	72	110	-1038	1591	-1080	1605
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