

**CASE 3737: Application of SOUTH-
LAND ROYALTY COMPANY for an
UNORTHODOX LOCATION, LEA COUNTY.**

Case No.

3731

Application, Transcript,
Small Exhibits, Etc.

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2068
SANTA FE

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

April 2, 1968

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3737
Order No. R-3397
Applicant:
Southland Royalty Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A handwritten signature in cursive script, reading "A. L. Porter, Jr.", is written over the typed name.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC X

Artesia OCC

Aztec OCC

Other Mr. Clarence Hinkle

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. 3737
Order No. R-3397

APPLICATION OF SOUTHLAND ROYALTY
COMPANY FOR AN UNORTHODOX LOCATION,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 20, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 2nd day of April, 1968, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Southland Royalty Company, seeks
authority to drill its O. D. McCoy Well No. 2 at an unorthodox
location 800 feet from the South line and 2120 feet from the
East line of Section 28, Township 9 South, Range 33 East, NMPM,
Flying "M" San Andres Pool, Lea County, New Mexico.

(3) That the Special Rules and Regulations governing the
Flying "M" San Andres Pool provide that the initial well on any
80-acre unit shall be located within 200 feet of the center of
either the northwest quarter or the southeast quarter of a
governmental quarter section.

(4) That the proposed location, in the SW/4 SE/4 of said
Section 28, is an off-pattern quarter-quarter section location.

(5) That the applicant proposes to dedicate the S/2 SE/4 of
the aforesaid Section 28 to the subject well.

-2-

CASE No. 3737

Order No. R-3397

(6) That the entire S/2 SE/4 of the aforesaid Section 28 can reasonably be presumed productive of oil in the Flying "M" San Andres Pool.

(7) That the evidence indicates that a well drilled at the proposed non-standard location in the SW/4 SE/4 of said Section 28 should result in greater ultimate recovery of oil than a well drilled at a standard location, thereby preventing waste.

(8) That the correlative rights of offset operators will be impaired if the subject well is assigned a standard allowable for the subject pool.

(9) That approval of the proposed unorthodox location will not violate correlative rights and will afford the applicant the opportunity to produce its just and equitable share of the oil from the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste, provided the subject well, in order to offset any advantage gained by the applicant over other producers by reason of said unorthodox location, receives no more than 60 percent of a standard allowable for the Flying "M" San Andres Pool.

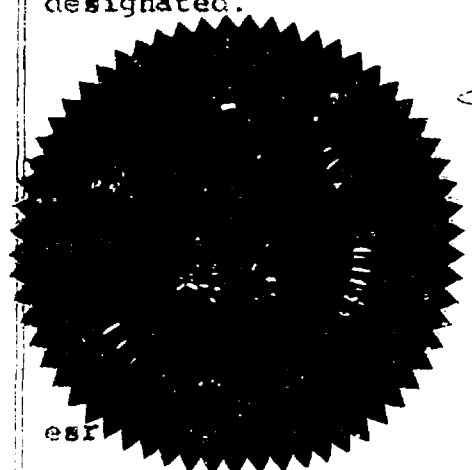
IT IS THEREFORE ORDERED:

(1) That the applicant, Southland Royalty Company, is hereby authorized to drill its O. D. McCoy Well No. 2 at an unorthodox location 800 feet from the South line and 2120 feet from the East line of Section 28, Township 9 South, Range 33 East, NMEN, Flying "M" San Andres Pool, Lea County, New Mexico;

PROVIDED HOWEVER, that the subject well shall be assigned no more than 60 percent of a standard allowable for said pool.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

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

esr

- CASE 3737: Application of Southland Royalty Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its O. D. McCoy Well No. 2 at an unorthodox oil well location 800 feet from the South line and 2120 feet from the East line of Section 28, Township 9 South, Range 33 East, Flying "M" San Andres Pool, Lea County, New Mexico.
- CASE 3738: Application of Pan American Petroleum Corporation for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres and Yeso formations in the interval 2190 feet to 3450 feet in its State "CF" SWD Well No. 1 located in Unit I of Section 13, Township 11 South, Range 26 East, Chisum-Devonian Pool, Chaves County, New Mexico.
- CASE 3739: Application of New Mexico Salt Water Disposal Company, Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation in the interval from approximately 13,128 feet to 13,207 feet in its Trainer-Springs Well No. 1, located in Unit H of Section 11, Township 11 South, Range 34 East, Sand Springs-Devonian Pool, Lea County, New Mexico.
- CASE 3740: Application of David Fasken for lease commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to meter the wet gas stream from his Ross-Federal Well No. 1, the Shell-Federal Well No. 1, and the Skelly-Federal Well No. 1, located in Sections 4, 5, and 9 respectively, Township 21 South, Range 24 East, North Indian Hills-Morrow Gas Pool, Eddy County, New Mexico, prior to separation and dehydration, allocating condensate production to each well on the percentage of each well's wet gas stream to the total combined wet gas volume.

DOCKET NO. 9-68

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 20, 1968

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

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

CASE 3724: (Continued from the February 28, 1968, Examiner Hearing)

Application of El Paso Natural Gas Company for a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its San Juan 27-4 Unit Well No. 30 (GD) located in Unit N of Section 32, Township 27 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the Gallup formation and the Basin-Dakota Pool through tubing and the casing-tubing annulus, respectively, by means of a cross-over.

CASE 3733: (Continued from the February 28, 1968, Examiner Hearing)

Application of Daryl Davis to re-enter a well, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter the State "A" Well No. 1 located 1980 feet from the South and West lines of Section 1, Township 4 South, Range 26 East, Chaves County, New Mexico, and attempt to complete said well as a producer from the San Andres formation.

CASE 3578: (Reopened)

Application of Texas Pacific Oil Company for an amendment to Order No. R-3264, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3264 to permit the re-dedication of acreage to its State "A" A/c-2 Wells Nos. 40 and 38, located in Units A and K, respectively, of Section 9, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico. Applicant proposes to dedicate a 320-acre non-standard unit comprising the N/2 of said Section 9 to Well No. 40 and to dedicate a 160-acre non-standard unit comprising the SW/4 of said Section 9 to Well No. 38. It is further proposed that said Order No. R-3264 be amended to require that the effective date of the proration units authorized therein be contingent upon new plats being filed.

CASE 3736: Application of American Trading & Production Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its New Mexico State 26 Well No. 1 located in Unit J of Section 26, Township 20 South, Range 35 East, Lea County, New Mexico, in such a manner as to produce gas from an undesignated Wolfcamp gas pool and oil from an undesignated Devonian oil pool through parallel strings of tubing.

SMA

SOUTHLAND ROYALTY COMPANY

GENERAL OFFICE
FORT WORTH, TEXAS 76102

February 23, 1968

DISTRICT OFFICE
1405 WILCO BUILDING
MIDLAND, TEXAS 79701

Case 3737

State of New Mexico
Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

MAIN OFFICE

Attention: Mr. George M. Hatch

'68 FEB 26 AM 8 20

Re: Application to Drill
Southland Royalty Company's
O. D. McCoy No. 2, 800' FSL
and 2120' FEL, Section 28,
T-9-S, R-33-E, Lea County,
New Mexico
(Flying "M" San Andres Pool)

Gentlemen:

Please be advised that we desire to have the subject application set for hearing and that the date of March 20, 1968, as outlined in your letter of February 21, 1968, will be satisfactory.

Very truly yours,

SOUTHLAND ROYALTY COMPANY

Alton C. Goodrich

Alton C. Goodrich
Dist. Prod. Supt.

ACG:jh

cc: Coastal States Gas Producing Company
Wilco Building
Midland, Texas

J. R. Burnett

DOCKET MAILED

Date *3-7-68*

COASTAL STATES GAS PRODUCING COMPANY

NORTH TEXAS DIVISION
WILCO BUILDING
MIDLAND, TEXAS
79701

February 19, 1968

Case 3737

New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

Gentlemen:

Coastal States has received notice that Southland Royalty Company has filed application to drill their O. D. McCoy No. 2 well in the SW/4 SE/4, Section 28, T-9-S, R-33-E, in the Flying "M" (San Andres) Pool of Lea County. Their application has requested an exception to Rule 4 of the State of New Mexico Oil Conservation Commission Order No. R-2746 in that they be permitted to drill the first well on a standard unit in the SW/4 instead of the SE/4 of a governmental quarter section.

Data has been presented and approved by the Commission that was used as the basis for the present field rules and these rules were followed in the development of the subject pool by other operators in the field. Coastal States does not agree with Southland Royalty that the location in the SE/4 of Section 28 would be the same quality as Coastal States' Gonsales No. 6. For these reasons, Coastal States respectfully requests that Southland Royalty's application be denied.

If you need additional information, please advise.

Very truly yours,



Joe R. Howard
Division Production Superintendent

JRH:lm

cc: H. L. Blomquist

968 FEB 20 AM 8 40

MAILED

Date _____

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

LEGAL DIVISION
PHONE 827-2741

February 21, 1968

Case 3737

VIA AIR MAIL

Southland Royalty Company
1405 Wilco Building
Midland, Texas 79701

Attention: Mr. Alton C. Goodrich

Gentlemen:

Reference is made to our letter dated February 20, 1968, concerning your application for approval of an unorthodox location in the Flying "M" San Andres Pool for your O. D. McCoy Well No. 2, and wherein we stated that the application has been set for hearing on March 6, 1968.

The March 6th hearing date is in error. We wish to advise that the matter can be set for the following Examiner Hearing which will be held on March 20, 1968.

Please let us know if you desire to have your application set for hearing and if the March 20, 1968, hearing date is satisfactory.

We are sorry of the error in hearing date and of any inconvenience we have caused.

Very truly yours,

GEORGE M. HATCH
Attorney

GMH/esr

cc: Coastal States Gas Producing Company
Wilco Building
Midland, Texas

C
O
P
Y

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

LEGAL DIVISION
PHONE 827-2741

February 20, 1968

Case 3737

C
O
P
Y

Southland Royalty Company
1405 Wilco Building
Midland, Texas

Attention: Mr. Alton C. Goodrich

Gentlemen:

Reference is made to your application dated February 14, 1968, for an exception to Rule 4 of the Special Rules and Regulations governing the Flying "M" San Andres Pool to drill your O. D. McCoy Well No. 2 at a point 800 feet from the South line and 2120 feet from the East line of Section 28, Township 9 South, Range 33 East, NMPM, Lea County, New Mexico.

As your proposed location is an off-pattern quarter-quarter section, and as an objection to your application has been received from Coastal States Gas Producing Company, the Commission has set the application for hearing before an examiner on March 6, 1968. Please advise the Commission whether or not this procedure is satisfactory.

Very truly yours,

GEORGE M. HATCH
Attorney

GMH/esr

cc: Coastal States Gas Producing Company
Wilco Building
Midland, Texas

2/16

Hearings

SOUTHLAND ROYALTY COMPANY

GENERAL OFFICE
FORT WORTH, TEXAS 76102

February 14, 1968

DISTRICT OFFICE
1405 WILCO BUILDING
MIDLAND, TEXAS 79701

MAILED FEB 16 1968

New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

'68 FEB 16 PM 4 30

Attn: Mr. A. L. Porter, Jr.,
Secretary-Director

Case 3737

Re: Application to Drill
Southland Royalty Company's
O. D. McCoy No. 2, 800' FSL
and 2120' FEL, Section 28,
T-9-S, R-33-E, Lea County,
New Mexico
(Flying "M" San Andres Pool)

Gentlemen:

Attached is completed Form C-101 and Form C-102 relative to the subject location. This location is not in accordance with Rule 4 of Pool Rules for the Flying "M" San Andres Pool which states that the first well on every standard or non-standard unit in this pool shall be located in the NW/4 or the SE/4 of a governmental quarter section.

Southland Royalty Company believes the S/2 of the SE/4 of Section 28, T-9-S, R-33-E, Lea County, New Mexico, to be productive of oil. However, Southland is of the opinion that a well located in the SE/4 of the SE/4 of Section 28 (required by current Pool rules), although it might yield some oil, could easily result in a well of very limited productive capacity and would not drain the S/2 of the SE/4 of Section 28. This opinion is substantiated by Coastal States' attempts to complete

New Mexico Oil Conservation Commission
Page 2
February 14, 1968

as an oil well their No. 6 Gonzales which is located 472' FWL and 1979' FSL of Section 27, T-9-S, R-33-E, Lea County, New Mexico. The No. 6 Gonzales is an east offset to the east line of Section 28 (see attached map). Coastal States apparently encountered oil shows in the No. 6 Gonzales but were not able to complete as an oil well and have since converted the well to an active injection well. The attached structure map on top of the San Andres porosity indicates that a well drilled in the SE/4 of SE/4 of Section 28 would likely be of the same quality as Coastal States' Gonzales No. 6.

Coastal States No. 7 Gonzales located 525' FNL and 2121' FEL of Section 33, T-9-S, R-33-E, was completed as a top allowable well. This well is a direct offset to the SW/4 of SE/4 of Section 28, T-9-S, R-33-E (Southland's McCoy Lease).

Southland Royalty Company respectfully requests exception to Rule No. 4 of the State of New Mexico Oil Conservation Commission Order No. R-2746 and specifically that Southland Royalty Company be permitted to drill its McCoy well No. 2 2120' FEL and 800' FSL of Section 28, T-9-S, R-33-E, Lea County, New Mexico.

A copy of this letter is being mailed to Coastal States Gas Producing Company.

If additional information is needed, please advise.

Very truly yours,

SOUTHLAND ROYALTY COMPANY



Alton C. Goodrich
Dist. Prod. Supt.

ACG:jh

cc: J. R. Burnett
Coastal States Gas Producing Company

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U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

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

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK			
1a. Type of Work		7. Unit Agreement Name	
b. Type of Well DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Farm or Lease Name O. D. McCoy	
2. Name of Operator Southland Royalty Company		9. Well No. 2	
3. Address of Operator 1405 Wilco Bldg., Midland, Texas 79701		10. Field and Pool, or Wildcat Undesig. (Flying M Ext.)	
4. Location of Well UNIT LETTER O LOCATED 800' FEET FROM THE south LINE AND 2120 FEET FROM THE east LINE OF SEC. 28 TWP. 9-S RGE. 33-E NMPM		12. County Lea	
19. Proposed Depth 4700		19A. Formation San Andres	20. Rotary or C.T. Rotary
21. Elevations (Show whether DF, RT, etc.) 4309.8 G.L.	21A. Kind & Status Plug. Bond Blanket (current)	21B. Drilling Contractor Unknown	22. Approx. Date Work will start Upon approval of permit.

23. PROPOSED CASING AND CEMENT PROGRAM					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4"	8 5/8"	24#	325'	250	Circulate
7 7/8"	4 1/2"	9.5#	4700'	350	2500'

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed Alton C. Goodrich Title Dist. Prod. Supt. Date February 14, 1968

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Case 3737

Form O-1
Superseded 1-1-78
Effective 1-1-75

All distances must be from the outer boundaries of the Section

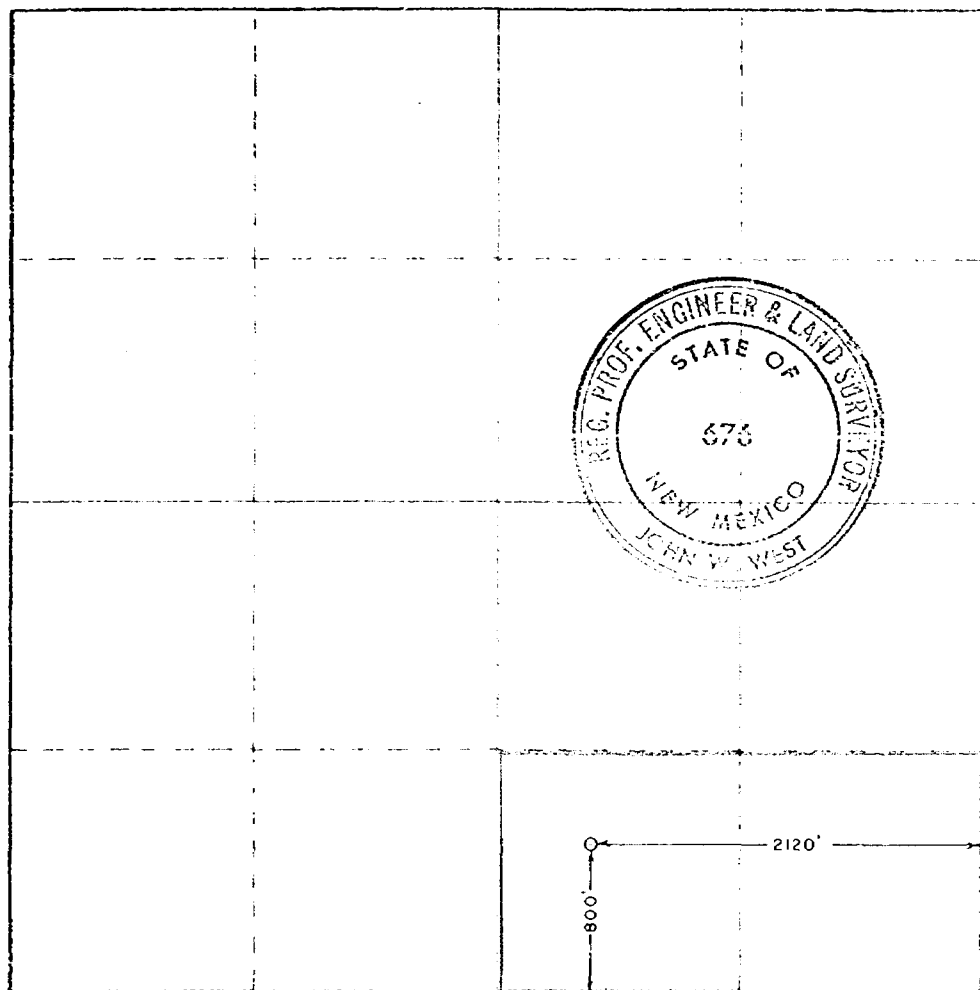
Owner SOUTHLAND ROYALTY Co.		Lessee O. D. McCoy		Acres 2
Tract Letter O	Section 28	Township 9 SOUTH	Range 33 EAST	County LEA
Actual Footage Location of Wells				
800	feet from the	SOUTH	line to	2120
				feet from the
				EAST
Ground Level Elev. 4309.8	Producing Formation San Andres		Pool Undesig. (Flying M Ext.)	Pool Acres 80

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

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

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

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



CERTIFICATION

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

Alton C. Goodrich

Alton C. Goodrich

Prod. Superintendent

Southland Royalty Co.

February 14, 1968

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

JANUARY 4, 1968

John W. West

676

dearnley-meier reporting service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 20, 1968
EXAMINER HEARING

IN THE MATTER OF:

Application of Southland Royalty
Company for an unorthodox location,
Lea County, New Mexico.

Case 3737

BEFORE: Daniel S. Nutter. Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Hearing will come to order, please.
Next case will be Case 3737.

MR. HATCH: Case 3737. Application of Southland
Royalty Company for an unorthodox location, Lea County,
New Mexico.

MR. KELLAHIN: If the Examiner please, Jason
Kellahin, Kellahin & Fox, Santa Fe, appearing for the
applicant. We will have two witnesses.

MR. HINKLE: Mr. Examiner, I would like to enter
an appearance, Clarence Hinkle, Hinkle, Bondurant & Christy,
Roswell, on behalf of Coastal States Gas Producing Company.

MR. NUTTER: Are there other appearances in Case
3737? Would you have your two witnesses stand and be
sworn, please?

(Witnesses sworn)

MR. KELLAHIN: If the Examiner please, this is
an application for an exception to the provisions of Rule
4 of Order Number 2746 to provide for an unorthodox well
location. Rule 4 of the Order R 2746 as the pool rules
for the Flying M pool provide that the first well drilled
on every standard or non-standard unit in the Flying M-
San Andres Pool shall be located in the Northwest or the
Southeast quarter of a Governmental quarter section. All

wells shall be located within 200 feet of the center of the Governmental quarter sections. I think the effect of our application is, we want to drill our second well first.

MR. NUTTER: Are you going to drill it within 200 feet of the center?

MR. KELLAHIN: We'll drill it within 200 feet of the center, we propose to drill on the southwest quarter.

MR. NUTTER: I see, the second well first.

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A My name is W. B. Perry.

Q By whom are you employed and in what position?

A I am a geologist for the Southland Royalty Company.

Q Have you ever testified before the Oil Conservation Commission?

A No, I have not.

Q Would you briefly state your education and experience as a geologist?

A I was graduated from the University of Oklahoma

in 1956. I was employed by -- as a geologist by Amerada Petroleum Corporation from January '57 to May of 1964. With Amerada I was exploration geologist and a production geologist in Hobbs, New Mexico for two years. From May of 1964 to September of '67 I was employed as a geologist with Coastal States Gas Producing Company and since September I have been employed with Southland Royalty Company as a geologist.

Q In connection with your work as a geologist, do you work in the area that is involved in the application in Case 3737?

A Yes, I do.

Q Have you made a study of this area as a geologist?

A Yes, sir, I have.

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

MR. NUTTER: Yes, sir, they are.

(Whereupon, Applicant's Exhibit 1 marked for identification)

Q Now, referring to what has been marked as Exhibit Number 1, Mr. Perry, will you identify that exhibit, please?

A Exhibit Number 1 is a land plat which includes the area of the Flying M field.

Q Now, shown on that plat is an area marked in red,

is that the proposed unit to be dedicated to the well?

A Yes, sir.

Q What does that consist of?

A The South half of the southeast quarter of Section 28, Township 9 South, 33 East.

Q Now, what well location is proposed by Southland Royalty Company in this application?

A We propose to drill a well in the southwest quarter of the southeast quarter of Section 28.

Q Other than the quarter -quarter section involved the location would comply with the rules for the pool for the Flying M-San Andres Pool, would it not?

A Yes, sir.

(Whereupon, Applicant's Exhibit
2 marked for identification)

Q Now, referring to what has been marked Exhibit Number 2, would you identify that exhibit, please?

A Exhibit 2 is a structure map based on electric logs of the top of the San Andres Formation. This map shows the structural attitude of the San Andres Formation in the Flying M area. The San Andres Formation consists of approximately 1,500 feet of dolomite and anhydrite. And the Flying M Field is related to structure but production

from the Flying M is controlled by permeability.

Q Now, is there information shown on Exhibit Number 2 that supports that conclusion, that structure is not the controlling factor?

A Yes, sir.

Q Point that out, please.

A In Section 33, in the northwest quarter of the northwest quarter we have structurally high wells that were dry holes and we have in Section 28 in the northwest quarter of the southeast quarter structurally lower wells that are productive.

Q Now, is this a situation you would normally expect if structure were a controlling factor in the productivity of the pool?

A Not normally.

Q Have you anything to add in connection with Exhibit Number 2?

A No, sir.

(Whereupon, Applicant's Exhibit Number 3 marked for identification.)

Q Now, referring to what has been marked as Exhibit Number 3, would you identify that exhibit, please?

A Exhibit Number 3 is a structure map based on logs

and continued on top of the San Andres formation. Now, this is the first producer that occurs in the San Andres formation and it is approximately 4000 feet approximately 100 feet below the top of the San Andres formation and the finding of this producer from this discovery, approximately the top of the top of this discovery. And here again we see that the productivity of the San Andres formation, that productivity is not dependent upon the structure of the San Andres formation, but upon the permeability.

Q Now, what information shows in Exhibit Number 2 can support your conclusion that the productivity is not based on permeability?

A It's not based on the structure of the producer, again, in Section 13 in the southeast corner of the northwest quarter, we have a structurally high well on the top of the San Andres formation which was completed as a dry hole and we have structurally lower wells completed as oil producers.

Q Has there a well drilled immediately to the west of your proposed unit in Coastal States?

A Immediately west?

Q Yes.

A Yes, in Section 11 was an oil Coastal States drilled the Number 2 located in the northwest corner of the

southwest quarter of Section 27. This well was completed as a dry hole although according to core analysis this well contained anywhere from zero -- no, it contained anywhere from five to fifteen per cent oil saturation but lacked effective permeability for an oil producer.

Q Then the well has porosity but not permeability?

A It has porosity but not permeability, yes, sir.

Q Is that, in your opinion, the reason they were unable to complete it as a producer?

A Yes, sir.

Q Is it your testimony that there was oil present in that well?

A Yes, sir.

(Whereupon, Applicant's Exhibit 4 marked for identification.)

Q Referring to what has been marked as Exhibit Number 4, would you identify that exhibit, please?

A Exhibit Number 4 is a permeability isopac map in the southeast portion of the Flying M Field and covers the area in question. This map was based on core analyses from eleven wells in the immediate area and the map is contoured on five-foot intervals of effective permeability. Now, it is our opinion that effective permeability when measured in

millidarcies is to be five millidarcies or greater; and also in this area of the field no well has been completed with less than five feet of effective permeability.

Q With less than five feet of effective permeability meaning five per cent or greater, is that correct, five millidarcies?

A Five millidarcies or greater, five feet of five millidarcies or greater.

Q It's been your experience that that is what is essential to complete a producing well.

A Yes, sir, in this area.

Q Does that mean, then, Mr. Perry, that the area you propose to dedicate to your well does not contain oil throughout, that is, the south half of the southwest quarter? Is it productive of oil, in your opinion, throughout the area?

A Yes, sir, in my opinion, there is oil in place under the entire 80 acres.

Q Referring again to the Coastal States Well in Section 27, did you have a core analysis on that well?

A Yes, sir.

Q Is that what you based your information on, the porosity and oil saturation?

A Oil saturation based on core analysis from that well.

Q Do you know what the permeability of that core was?

A Permeabilities ranged from zero to 2.5 millidarcies, which was not effective permeability.

Q Now, referring to the area generally, as you move back from that well toward the main portion of the pool, does the permeability appear to increase?

A Yes, permeability increases.

Q Now, would you recommend to your management that they drill a well at an orthodox location in the southeast quarter of this proposed unit?

A No, sir.

Q Why?

A Because it is my belief that we would encounter between zero and five feet of effective permeability and this would be a very limited capacity well, production-wise.

Q Well, in your opinion, would a well located in the southeast of the southeast quarter be productive of oil from the San Andres Formation?

A In the southeast of the southeast?

Q Yes, sir, a standard location?

A Yes, sir, but a very uneconomical venture.

Q Would you recommend that they drill in the southwest

of the southeast?

A Yes, sir, I would.

Q Would a well so located enable you to recover the oil underlying the southeast of the southeast?

A It is my opinion that this well would effectively drain the oil in the south half of this quarter section.

Q Were Exhibits 1 through 4 prepared by you or under your supervision?

A Yes, sir, by me or under my supervision.

MR. KELLAHIN: At this time, I would like to offer in evidence Exhibits 1 through 4 inclusive.

MR. NUTTER: Applicant's Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 4 were offered and admitted in evidence.)

MR. KELLAHIN: That's all I have on direct examination, Mr. Nutter.

MR. HINKLE: I would like to ask a few questions.

CROSS EXAMINATION

BY MR. HINKLE:

Q Mr. Perry, I take it from your examination you think then, that all of the south half of the southeast quarter is productive?

A Yes, sir, it contains oil in place.

Q Do you feel that if you drill a well in the southeast of the southeast that you are apt to encounter from zero to five feet?

A Yes, sir.

Q Do you feel that one well drilled anyplace on this 80 acres will effectively and efficiently drain all of the oil from the 80?

A One well drilled anywhere?

Q Anywhere, anyplace on the 80 will effectively and efficiently drain the 80?

A No, sir.

Q You don't feel then that a well drilled at the regular location of the southeast of the southeast would completely, effectively and efficiently drain all of the south half?

A No, sir.

Q Do you feel that Southland would obtain any particular advantage by locating the well in the southwest of the southeast in an unorthodox location?

MR. KELLAHIN: If the Examiner please, I would like the attorney to define what he means by advantage. There are many advantages.

Q (By Mr. Hinkle) Are you going to obtain more oil that way than you would drilling in the southeast of the southeast? (

A Yes, sir, I believe we would recover more oil because it would be drained better.

Q Are you asking for a full 80-acre allowable?

A Yes, sir.

Q Do you contemplate ever drilling a well in the southeast-southeast if this exception is allowed?

A I cannot say at this time.

Q You have a well, I believe, I guess the Number 6 Well shown on your Exhibit Number 4 located in the -- I guess it would be the northwest of the northeast of 28?

A Yes, sir.

MR. NUTTER: I think that's six feet of pay on that well, it's some other number, Mr. Hinkle.

A It's number one.

MR. NUTTER: Ferguson Number 1.

Q Shows six feet of pay?

A Six feet of permeability.

Q Is that a pretty good well?

A Yes, sir.

Q So you could get a good well even though you had

five feet of pay down here in the southeast-southeast?

A If we could get five feet or better.

Q If you could get permeability and porosity.

If you located a well at a standard location, referring to Exhibit Number 4, and you say that your Number 1 in the northwest of the northeast is a good well, wouldn't it be about the same location according to this map --

A No, sir.

Q -- as the Number 1.

A As the Number 1 Ferguson, no, sir, it had six feet of effective permeability, whereas, it is our opinion we have only encountered somewhere between zero to five feet of effective permeability in an orthodox location.

MR. HINKLE: I believe that's all.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Perry, Coastal States is conducting a pressure maintenance program in this field, are they not?

A Yes, sir.

Q Where are the injection wells, do you know?

A Offhand, I do not know. I would like to ask Mr. Goodrich if he knows.

MR. GOODRICH: I'm sorry. I didn't hear the question.

MR. NUTTER: Do you know where the injection wells are that Coastal States operates for their pressure maintenance program?

MR. GOODRICH: Not all of them, no.

MR. HINKLE: Mr. Examiner, I might say we will put on witnesses that would show the location of these wells.

MR. NUTTER: Oh, I see.

Q Southland Royalty is not a party to the unit agreement in this area?

A No, sir.

Q And you are not taking part in this pressure maintenance program?

A No, sir.

Q What, in your opinion as a geologist, Mr. Perry, would be the effect of drilling a well in the southeast-southeast of 28 and placing it on water injection? Now, according to your profile here of permeability, you have smaller permeability in that 40-acre than you would in the proposed location, but an injection well in that 40 acres would possibly move oil over toward the interior of the pool to be produced by some of these wells on the standard locations, would it not?

A I would like to have Mr. Goodrich answer that question.

Q Well, he's not on the stand right now, but I said, in your opinion, as a geologist, would that be a remedy to the problem here?

A Well, if we had ample effective permeability in that well and in the injection well. Now, the Coastal States 6 Gonzales over here was completed as a water injection well, but it was my understanding that the well was not a successful water injection well because of the lack of effective permeability. This is what was reported to me, I do not know firsthand.

Q Well, you said that its permeability ranged from zero up to a high of 2.5 millidarcies, I think?

A Yes, sir.

Q So you have zero feet of five millidarcies pay?

A Yes, sir.

Q How many feet of two and a half millidarcie pay were in the well?

A I did not total up the two and a half millidarcies, but I could look here. Well, approximately two feet of two and a half millidarcies total and approximately 1.7 feet of two millidarcies and the rest was less than two millidarcies.

MR. NUTTER: Are there any other questions of the witness? He may be excused.

Witness excused.

MR. KELLAMIN: I call as the next witness. Mr.
Goodrich.

ALTON C. GOODRICH

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

DIRECT EXAMINATION

BY MR. KELLAMIN:

Q Would you state your name, please?

A Alton Goodrich.

Q By whom are you employed and what position?

A I am employed by Southland Royalty Company as
District Production Superintendent in Midland, Texas.

Q Does the area involved in the application in Case
3737 come under your jurisdiction?

A Yes, sir, it does.

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

A Yes, sir, I have.

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

MR. NUTTER: Yes, sir.

Q Referring to our Exhibit Number 1, would you state the exact location that is proposed by the Applicant in this case?

A 800 feet from the west line or 2,120 feet from the east line and 800 feet from the south line of Section 28.

Q Would that put the well substantially in the center of the southwest quarter of the quarter section?

A Yes, sir.

Q What acreage do you propose to dedicate to that well?

A The south half of the southeast quarter of Section 28.

Q Do you have other properties in the Flying M-San Andres Pool?

A Yes, sir, we own the Ferguson Number 1 Well, which is located in the northwest of the northeast quarter of Section 28 and the McCoy Number 1 Well which is located in the northwest of the southeast of Section 28.

Q What acreage is dedicated to those wells?

A The north half of the northeast quarter of Section 28 is dedicated to Ferguson Number 1 and the north half of the southeast quarter is dedicated to the McCoy Number 1.

Q And you propose to dedicate the south half to the proposed McCoy Well Number 2?

A Yes, sir.

Q Now, are you offset by production on that location?

A Yes, sir, the Coastal States, I believe they call it their Gonzales Number 7 is a direct south offset to the proposed location and their Number 4, I'm not sure of the lease name, is a direct west offset to the proposed location.

Q There is no production to the east of you, is that correct?

A That is correct.

Q So you are offset by production to the south and west?

A That's right.

Q In your opinion as a Petroleum Engineer, is there any drainage occurring that affects Southland Royalty's acreage?

A Yes, sir, there is.

Q Would it be possible for you to protect yourself against this drainage by drilling a well at an orthodox location in the southeast quarter of the southeast quarter?

A I do not believe that it would adequately protect

or prevent drainage from occurring under the entire south half of the southeast quarter. As it's been testified, we might get a very limited producer in an orthodox location, but certainly do not believe it would drain or recover Southland's equitable share of the oil under the south half of the southeast quarter.

Q In your opinion, would a well located in the southwest of the southeast quarter protect the interest of Southland Royalty Company?

A Yes, sir.

Q Would the correlative rights of the offset operators in any way be impaired by a well so located?

A In my opinion, no, sir.

Q Do you know the status of the Coastal States Gonzales Number 6 Well?

A Again not except as reported in conversation with various people. It's supposed to be a water injection well of limited injective capacity.

Q Do you know whether any injection has been carried on in that well?

A Yes, sir, it has.

Q What effect would injection of water in the Gonzales Number 6 Well have in that area?

A If it were effective, which I doubt, because of its limited injective capacity, it would tend to, I presume, either water out or sweep oil toward the main part of the field.

Q Does Southland have acreage or a producing well offsetting that Number 6 Well?

A No, sir, we have acreage offsetting that well, yes, sir.

Q Does Coastal States have any well offsetting the Gonzales Number 6 Well which would be stimulated by injection in that well?

A No, sir.

Q Now, you heard the testimony of Mr. Perry in regard to the controlling features of the Flying M-San Andres Reservoir. Are you in agreement with his conclusions as an engineer?

A Yes, sir, I am.

Q Is the productivity of the pool controlled, in your opinion, by permeability rather than other factors?

A Yes, sir.

Q Now, in your opinion, is all of the south half of the southeast quarter productive of oil from the San Andres Formation?

A Yes, sir. to reiterate Mr. Perry's statements, I believe it is productive, of course, I do not believe that it can be drained at all by drilling a well in the orthodox location. I think we might well get a well there that would have less than five feet of five millidarcie pay or it could be not more than the Number 6 Gonzales Well, if it is located or could be located in regard to the reservoir in about the same position.

MR. KELLAHIN: That's all the questions I have on Direct Examination.

MR. NUTTER: Are there any questions of Mr. Goodrich?

MR. HINKLE: I would like to ask Mr. Goodrich a few questions.

CROSS EXAMINATION

BY MR. HINKLE:

Q Is Southland's acreage committed to the unit, the Flying M-San Andres unit?

A No, sir.

Q I'm not clear as to what you stated what acreage was dedicated to your Number 1 Well that's located in the northeast quarter of 28. Was it the north half of the northeast?

A North half of the northeast, yes, sir.

Q That's shown on the proration schedule?

A Yes, sir.

Q Do you propose to drill the south half of the northeast?

A I would not like to insinuate that further development would not incur just to drill that well. We have no current plans for drilling the south half.

Q If you drill that, would you want to drill that on an orthodox or unorthodox location?

A I'm not prepared to answer that right now. We are not asking for it at this hearing and one reason we didn't is, we ourselves offset the unorthodox location on two sides, the location requested at this hearing is offset on two sides by Coastal States.

Q If this exception is granted in this particular case, it would also open the door to drilling of another well on unorthodox location in the northeast-northeast, wouldn't it, on the south half of the northeast of 28?

A I'm not prepared to say, it -- conceivably it could.

Q Conceivably it could, and then you would have a row of wells all along the center line of Section 28, would you not, four in a line?

A If they were drilled, yes, sir.

MR. HINKLE: That's all.

A Our main contention here is in the interest of correlative rights, to prevent drainage and to recover Southland's equitable share of oil in the south half of the southeast quarter, the requested location need be drilled; we are recovering our share probably by the two offsets to the unorthodox location in the northeast quarter of Section 28.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Goodrich, you stated that you thought the entire south half of the southeast quarter of 28 is productive, but you don't think that a well drilled in the southeast would drain the 80 because of the low effective permeability?

A Yes, sir.

Q But that a well in the unorthodox proposed location would drain it because you would have more permeability. Could you explain to me why a well over here in this zero to two and a half, possibly five millidarcie area in the southeast-southeast wouldn't drain that 40 when you would have a greater differential pressure from the well bore to the area around the well than you would have as far as

far as differential pressure is concerned from this area over to the well in the non-standard location?

A Now --

Q In other words, you've got greater differential around the well bore in the southeast-southeast if you had a well there than you would have if you were draining this southeast-southeast from the proposed location?

A That's true.

Q Yet you say this well over here will drain this 40, but a well in that 40 wouldn't drain it with greater differential?

A I have said, sir, that a well in that 40 would not drain the 80 because of limited permeability. I cannot say that a well in the southwest of the southeast will as effectively drain the east 40 of that 80 as a well drilled over there would drain that 40, but I think this would necessitate drilling two wells on that 80 acres, which I do not think that the well drilled on the east half of the 80 would be a commercial well. I have not or do not intend to insinuate that a well in the southeast quarter would completely effectively drain all of the east 40 acres. I think that the 40 acres would contribute to a well drilled in the southwest quarter of the southeast quarter.

Q Well, this takes me to my next question, Mr. Goodrich. The Commission rules provide that if a well is drilled in an unorthodox location that the Commission may adjust the allowable of that well in order to offset any advantage the operator may obtain by drilling in an unorthodox location. I think we understand what the word "advantage" means here. What do you propose to be the formula that the Commission should consider to adjust the allowable for a well if it were drilled at the location you propose?

A Well, I hadn't considered a formula the Commission might use here. I don't really know, I think the Field Rules, as I interpret them, would let us drill a well there on 40 acres with no penalty.

Q Well, 40 acres would get half an allowable, wouldn't it?

A That's right, but I don't know, I don't have anything, possibly one and a half allowables.

Q One and a half 80-acre allowables or one and a half 40-acre allowables?

A One and a half 40-acre allowables or three quarters of an 80-acre allowable.

Q What is the allowable in here? There's no depth factor in this pool, is there, so the 80-acre factor is 2?

A Right.

Q Now, we heard Mr. Perry testify that effective permeability was five feet of five millidarcies. Now, supposing we were to accept his contour line here and determine the area to the west of his five-foot contour line and use that amount of area with respect, as the numerator in a fraction and 80 acres would be the denominator and multiply that times the top allowable for the pool and use that for a formula for the well?

A Well, it indicates to me, just looking at it that we would wind up with possibly --

Q Looks like about 60 per cent possibly?

A Right.

MR. KELLAHIN: If the Examiner please, we are asking for 80-acre allowable and we feel that our testimony does support it. If the Commission feels on the basis of the testimony that the allowable should be adjusted, of course, I think it's within their province to do so.

MR. NUTTER: Well, Mr. Kellahin, we have got testimony here that in order to drain this other 40 we have to have a second well out there too.

MR. KELLAHIN: This is true.

MR. NUTTER: And I presume if two wells were drilled

on the 80, the 80 would receive a top allowable then.

MR. KELLAHIN: Under the rules, it would.

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

(Witness excused.)

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

MR. KELLAHIN: Not at this time.

MR. NUTTER: Mr. Hinkle.

MR. HINKLE: We have two witnesses, I would like to have Mr. Staton sworn, please.

(Witnesses sworn)

M.C. STATON

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name.

A I am M.C. Staton.

Q By whom are you employed?

A Coastal States Gas Producing Company in Midland.

Q In what capacity?

A As a geologist.

Q Have you previously testified before the Oil Conservation Commission?

A I have.

Q Your qualifications as a geologist are a matter of record?

A Yes, sir.

MR. NUTTER: How do you spell your last name?

A Staton, S-t-a-t-o-n.

Q Are you familiar with the Flying M-San Andres area?

A Yes, sir.

Q Have you been familiar with this area since its inception, since the first well was drilled?

A Yes, sir, I have.

Q Have you made a study of all the wells and well logs?

A Yes, sir.

Q All the production information that's available?

A Yes, sir.

(Whereupon, Coastal States
Exhibit 1 marked for identification.)

Q Have you prepared an exhibit in way of a structural

map of the area?

A Yes, sir, I have.

Q Refer to Coastal States Exhibit Number 1 and explain what it is and what it shows.

A This is a structural map contoured on top of the Slaughter interval, that interval that was previously identified as the top of the porosity or thereabouts. This is a map that has been previously presented with a little of the later information brought up to date. It is essentially the same map presented by Mr. Perry.

Q Are there any particular variances between this and the map which was presented by Mr. Perry?

A No, sir, there are not.

Q They are substantially the same?

A Substantially the same. Any difference would be a matter of individual interpretation.

Q As far as structure is concerned, you agree substantial with Mr. Perry's interpretation?

A Yes, sir. Mr. Hinkle, as you will notice, there is a dark line with red identified on the east side of the field. This is a matter of presenting our idea of what is possibly happening on the east side of the San Andres production in the Flying M Field. We recognize that

permeability is a factor in the productive capacity of the San Andres wells. We know that the Number 6 Gonzales located in the northwest quarter of the southwest quarter of Section 27 did lack effective permeability to produce substantial quantities of oil. The only thing that this shows is that this permeability factor does exist and that not knowing the information on the southeast part of the field we continue this line with an indeterminate stopping point, showing merely that the field is not at the present time fully defined.

Q Is there anything else that you would like to state to the Commission with respect to that matter?

A Yes, if you will notice, again as far as structure is concerned, the Number 6 Gonzales which we have seen to be shown low in permeability and the Number 9 Gonzales located in the southeast quarter of the northeast quarter of Section 3 are structurally flat.

MR. NUTTER: 33 you mean?

A 33, yes, sir, did I not say that, I beg your pardon. In Section 33 they are structurally flat as shown both on this map and the one previously presented by Mr. Perry. One is a producer, the other one is a water injection well.

MR. HINKLE: That's all we have for this witness.

MR. NUTTER: Are there any questions of this witness?

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Staton, there are some dry holes in the northwest quarter of Section 33, are there not?

A There is a water injection well on the northwest-northwest of Section 33 and a dry hole in the southeast of the northwest of Section 33.

Q Was the water injection well a producer before it was converted?

A It had the appearance on the cores as I recall, of sufficient quantity to cause us to run pipe at that time. We felt that we would try a completion attempt in that well, but our program of pressure maintenance had been well enough along that we knew that if it did not produce that it would be converted to an injection well.

Q And it did not produce?

A I think we got a little oil out of it, yes.

Q It wasn't economical so you converted it to an injection well, is that correct?

A That's right.

Q How do you account for those two dry holes or

relatively low producers in that location?

A Well, again we have the permeability variation that exists on the west and the east sides. This, by no means, is a limiting factor in the normal locations around that well; as a matter of fact, the Number 8 Gonzales as shown on this map as a dry hole on further evaluation of the core analysis of this log in light of the Number 9 Gonzales, shows that it has a very good chance of being re-entered and recompleted as a producer. We have no plans at this moment to do that thing, but the core analyses on the two wells are very similar.

Q What was the permeability on these wells?

A I cannot recall off the top of my head what the permeability in those wells was because I did not make the comparison to bring along. I just made a visual comparison in my office. As a matter of fact when you ask the question, what is the permeability of a well, you must refer to a particular interval or a particular foot of section and say the permeability of this one particular sample as reported from core lab has this particular permeability and a gross study of the permeability of the Slaughter Zone is not possible. There is no way to get the information that would be necessary because it's just not

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Q. Now, the productivity of the San Andres is

A. It is dependent primarily on the development of the permeability?

Q. That is right, and none of us have second hand to say that we will have sufficient --

Q. All your wells are completed in relatively the same zone, are they not?

A. No, the wells throughout the field are completed in the Slaughter zone, which embraces some 150 feet.

Q. Are they open throughout that zone?

A. Some are and some are completed in the upper part, the middle part and the lower part.

Q. Are you flooding the whole zone?

A. We are injecting in all three zones in a number of the wells.

Q. You say there are three zones then?

A. I have never agreed in my own mind to say that there are three zones. I still do not recognize it. I still look at it as a gross interval.

Q. I don't follow you. You say you are injecting in three zones, but you say --

A. I said that I do not know it in my mind. These are relative things. You have 150 feet, say, as a gross

interval and some of the production comes from the upper part of this 150 feet, some from the middle part, some from the lower and any combination of the three.

Q And you are flooding all of them?

A We are attempting to maintain pressure in the field.

Q You are injecting water in that Gonzales Number 6 at the present time?

A I am not an expert on the injection program or the pressure maintenance program, but Mr. McGraw is and he will present that testimony.

MR. KELLAHIN: That's all I have.

MR. HINKLE: I would like to offer in evidence Exhibit 1, please.

MR. NUTTER: Coastal States Exhibit 1 will be admitted in evidence.

(Whereupon, Coastal States Exhibit 1 was offered and admitted in evidence.)

MR. NUTTER: Are there any other questions of the witness? He may be excused.

(Witness excused.)

MR. HINKLE: I would like to have identified Exhibits 2, 3, and 4 please.

Witness: Coastal States
Employees I, J and K named for
identification.

JOHN MCKENZIE

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

DIRECT EXAMINATION

BY MR. FINKLE:

Q State your name?

A My name is Jack McKenzie.

Q By whom are you employed?

A I work for Coastal States Gas Producing Company.
Midland, Texas is Division Petroleum Engineer.

Q Have you previously testified before the Oil
Conservation Commission?

A Yes, sir, I have.

Q And your qualifications as a petroleum engineer
are a matter of record with the Commission?

A Yes, sir.

Q Are you familiar with the development in the
Flynn N-San Andres Pool?

A Yes, sir.

Q You previously testified, in fact, in connection

with the Flying M-San Andres Pool, did you not?

A Yes, sir.

Q Refer to Exhibit 2 and explain to the Examiner what this is and what it shows.

A Exhibit Number 2 is a plat showing the outline of the Flying M-San Andres Unit. The legend at the bottom shows that there is 66.9 per cent state acreage in this unit. There is 13.2 per cent Federal acreage and there is 19.8 per cent Fee acreage within the Flying M-San Andres Unit. The colored blue denoted wells on the plat represent injection wells, shows that we have a peripheral pattern set up for the field and the Number 6 well in Section 27 is also shown and it is an active injection well at this time. Now, also you can notice that some of the tracts are not committed to the unit, notably, Southland Royalty's tract in Section 28. We completed this Number 6 Well as an injection well even though they had not joined the unit because of the dire need for an injection well in this area. We had hope that later they would join this unit and we could continue to inject in that well.

Q Is Coastal States the unit operator?

A Yes, that is true.

Q Has the pressure maintenance project proved

successful up to date?

A Yes, sir, it has.

Q You've gotten some pretty good responses?

A Yes, sir. I might also point out that some production tests on wells in the vicinity of interest here, for instance, according to the proration schedule the last official test on Southland Royalty's Ferguson Number 1 Well was 130 barrels per day.

Q Now, that's the one located in the northwest-northeast?

A Yes, sir, that is true, and the McCoy well, which is in the northwest of the southeast of 28 was 138 barrels of oil per day. At that same time the test on the Coastal States Gonzales Number 7 Well located due south of the McCoy Well was 92 barrels of oil per day. The production test on the Tract 25, Well 4 was 145 barrels of oil per day.

MR. NUTTER: Where is that well, Mr. McGraw?

A It is in the southeast quarter of the southwest quarter of Section 28, Tract 25, Well 4.

MR. NUTTER: And what was the total?

A 145 barrels of oil per day. The Tract 25 Well 2, which offsets Southland Royalty, the test on that well

was 29 barrels of oil per day.

Q Is that all?

A Yes, that is all that I wanted to point out.

Q I notice that in the development of the field that in some instances Coastal States or the operator has two wells on one 80 acres dedicated for proration purposes.

A Yes, sir, that's right. We have four tracts that have two wells on each 80 acres proration unit, and they are denoted by the arrows that are drawn on the plat. In every case these wells were deeper wells that were drilled to the Bough C and were later simply recompleted in the San Andres simply because the hole was there and it was an inexpensive operation.

Q Those wells share in the 80-acre allowable, do they not?

A Yes, and also referring to the proration schedule you can see that in every case those two wells simply share the 80-acre allowable. Now, I've said in every case, except one, now we did drill one well on Tract 17 Well Number 3, now that is in the southwest quarter of the southeast quarter of Section 21. Now that particular well was drilled after Southland Royalty had refused to join the unit and after we had placed the injection well to the west on injection and

it was drilled in order to keep from pushing oil over onto their lease.

Q But that also shares in the 80-acre allowable?

A It shares the allowable with the Well Number 1.

Q Is there anything else you would like to add to your testimony with respect to Exhibit Number 2?

A No, sir, not at this time.

Q Now, refer to Coastal States Exhibit Number 3 and explain what that shows.

A Exhibit Number 3 shows the 80-acre circle drawn around each producing well in this portion of the field.

Q Do these indicate the wells in cases of those other exceptions where they too share in the allowable so as to indicate the drainage pattern?

A Yes, sir. the blue circles represent injection wells and just an indication that this is an injection well. The Southland Royalty Well is denoted here in the orthodox location. showing that it would be on an orderly field development plan and would effectively drain the area if a well was drilled at that point.

Q In other words, this shows that the entire field has been developed in accordance with the special field rules in an orderly manner and this would be the first exception?

A That's true.

Q Now, refer to Exhibit Number 4 and explain what this shows.

A Exhibit Number 4 is the same type information shown with the Southland Royalty Wells located in their proposed location and the overlapping of the drainage areas here shows how the correlative rights of the operators and all the royalty owners in the unit would be infringed upon by locating a well in this area.

Q Would this unorthodox location cause the drilling of unnecessary wells?

A Yes, sir, it would.

Q In what way?

A If they drill this well and then later, like you said before, would open the door for the same situation to happen in the south half of Section 28 then we would have to drill along their line on 40 acres as they have done.

Q If this unorthodox location is granted is it apt to cause waste to be committed?

A Yes, sir, we feel, as prior testimony has shown, that a well located there would not properly drain the southwest quarter of that tract.

Q In other words, you would be leaving oil in the

ground unless a second well is drilled in the south half of the southeast quarter?

A Yes, sir, very definitely.

Q Do you have anything further to add to your testimony?

A No I don't believe I do.

MR. HINKLE: That's all our Direct.

MR. NUTTER: Are there any questions of the witness?

CROSS EXAMINATION

BY MR. KELLAHIN:

Q In connection with your Exhibit Number 4, you show a circle of the 80-acre area on each well, I assume that's the same as 80 acres?

A Yes, sir, the proposed location would affect -- I mean, according to our interpretation would affect Coastal States Well Number 3 in Tract 25 and Well Number 7 in the tract to the south.

Q But about 90 per cent of the area of influence of that well would be located on Southland Fidelity's acreage, would it not?

A No, sir, I wouldn't agree that 90 per cent would be, but some per cent.

Q A major portion of it anyway, about 80 per cent.

would you say, according to your circle there, or would you want to venture a guess?

A I wouldn't venture a guess, but there is some per cent of it.

Q There is nothing in the rules to prevent Southland Royalty from drilling that well and a well located in the southeast of the section also, is there?

A No, sir.

Q They can drill both of them?

A Yes, sir.

Q And it would have the same area of influence in both areas, would it not, according to your interpretation?

A If they drilled the well though, they would have to take less than an 80-acre allowable if they drill it at this time.

Q Is there anything in the rules to prevent you from taking your allowable in any proportion from each well?

A No, sir.

Q They can take it then, a major portion of it, from Well Number 2 and a small fraction from a well in the southeast quarter, couldn't they?

A They could if they wanted to operate that way, yes, sir.

Q And that's what you are doing up in the north.
isn't it?

A No, sir.

Q You are taking it equally from all the wells?

A No, sir, the wells up there, they are producing
their capacities.

Q Yes, sir.

A But their capacity does not exceed the 40-acre
allowable.

Q Well, do you think the capacity would exceed the
40-acre allowable for Southland Royalty?

A In the location that they propose, I certainly
do.

Q What was the date of the figures you quoted on
well tests?

A It was a March proration schedule.

Q Do you know when those tests were made, do you
have any idea?

A No, sir, they were made at sometime prior to that,
I don't know.

Q Now, your CD Gonzales has not been committed to
the Flying M Unit, has it?

A No, sir, it hasn't at this time. We do plan to

commit that to the unit as soon as further development has been completed.

Q You said that you converted the Gonzales Number 6 to an active injection well because of the dire need for an injection well in that area?

A Yes sir.

Q What occasioned this dire need in that area?

A The fact that we don't have anything in this area to -- any injection in this area.

Q You don't have any production in that area either, do you?

A Yes, sir, we do.

Q Where?

A In 33.

Q In 33?

A Yes, sir.

Q That's quite some distance away. Are you getting that much effect from your injection wells?

A We were looking at this from a unit standpoint and as I said, we had hoped that Southland would join the unit, in which case if they don't we'll, by all likelihood, cease to inject in the Number 6 Well and convert, probably re-enter our dry hole or the well that shows as a dry hole.

the Number 8 Well down in Section 33.

Q Now, the well you would expect to be affected by injecting in the Gonzales Number 6 Well would be your Number 7 and your Number 9 Well in Section 33, is that correct?

A Yes, sir.

Q And if they are affected, then a well located in the southeast quarter of the southeast quarter of Section 28 would be watered out first, would it not?

A It would also be stimulated first.

Q It would be watered out first too.

A We haven't watered any out yet and we've been injecting for three years.

Q It would be stimulated but you have no appreciable permeability in your Gonzales Number 6 so what oil would you be stimulating?

A I'm sorry, I didn't follow the question.

Q You couldn't make a producer out of the Number 6.

A We could not make a commercial producer, no, but as has been testified, there is oil in place in this area. We feel that we can move some of it out and into an area where it can be produced.

Q Well, the principal effect of injecting in the Number 6 is going to be to water out Southland Royalty's

acreage. is it not?

A It will be to stimulate theirs. That's the reason we will probably cease to inject in it if they don't join the unit. I believe too that they agreed to this when we asked for permission to put that well on injection, they did not object to it.

Q Now, Coastal States has made a pretty extensive study of the Flying M Field before they started their waterflood project, did they not?

A Yes, sir.

Q You have substantially more reservoir data in this particular pool than in most, isn't this the case, more cores, more other information?

A Yes, sir.

Q On the basis of this information, you have studied it, have you not, you personally?

A Yes, sir.

Q Would you anticipate that Coastal States would ever do field drill on quarter-quarter sections?

A No, sir.

Q At no stage of it?

A No, sir.

Q Do you know why Coastal States did no field on

quarter-quarter sections in the northern part of the pool?

A Yes, sir, as I have testified a minute ago, in each case, those wells were deeper wells that were drilled to the Bough C and due to the --

Q They were just converted then?

A Just converted to San Andres.

Q Other than the Number 3?

A That is right.

MR. KELLAHIN: That's all I have.

MR. NUTTER: Are there any other questions of the witness?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. McGraw, in your opinion, I will ask the same question of you that I asked of Mr. Goodrich, if the Commission should approve this location and decide that it should consider some means of reducing the allowable to offset an advantage, do you have any suggestion as to a formula which could be used?

A Yes, sir, I feel that the field rules are very clear on this matter and a second well drilled on a 20-acre tract should simply share the allowable with the existing tract. Now, they have chosen to make their proration units

in an east-west direction rather than a north-south direction which if they had turned them around the other way then they could come down and drill their second well and let it share with the existing McCoy Well on that lease and the two wells share an allowable and we certainly could not object to that at all, if they desired to do this, but the field has been developed with the proration units running in a north-south direction except for their particular case and there is one case of ours that two wells that were drilled prior to field rules and that is on our Tract 13 Well 1 and 2, those two wells were drilled prior to field rules and they are off-pattern for this type proration unit and it's not a good situation even for us there. We would much prefer that that well had been located on the standard location.

Q What was the reason for it being located where it was prior to the 80 acre rules?

A In fact, this was about the second well in the field and they just didn't know what type of development that we would do at that time.

Q And the well labeled Number 221 located in unit C is the one that's off-pattern?

A Yes, sir, it's off-pattern but in that case, of course, the proration units run in an east-west direction

similar to what Southland is asking down here, but as I said, that was before field rules had been established.

MR. NUTTER: Are there any other questions of the witness?

MR. HINKLE: We would like to offer in evidence Exhibits 2 through 4.

MR. NUTTER: Coastal Exhibits 2,3 and 4 will be admitted in evidence.

(Whereupon, Coastal States Exhibits 2 through 4 were offered and admitted in evidence.)

MR. NUTTER: Mr. McGraw may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further you wish to offer in this case Mr. Hinkle?

MR. HINKLE: That's all.

MR. NUTTER: Any statement?

MR. HINKLE: I believe not.

MR. NUTTER: Mr. Kellahin?

MR. KELLAHIN: Nothing further.

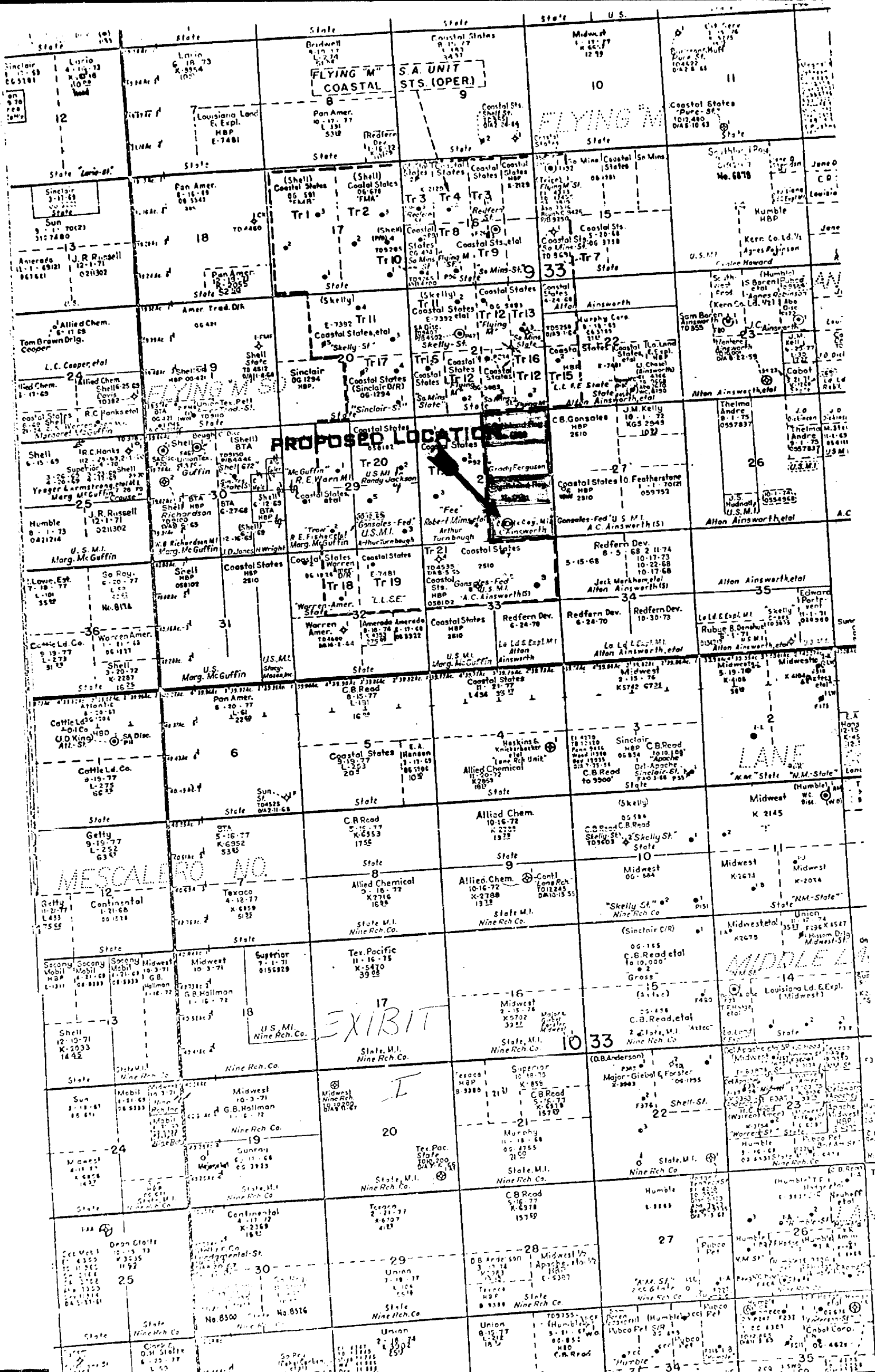
MR. NUTTER: Does anyone have anything they wish to offer in Case 3737? We will take the case under advisement.

Witness my Hand and Seal this 26th day of March, 1968.

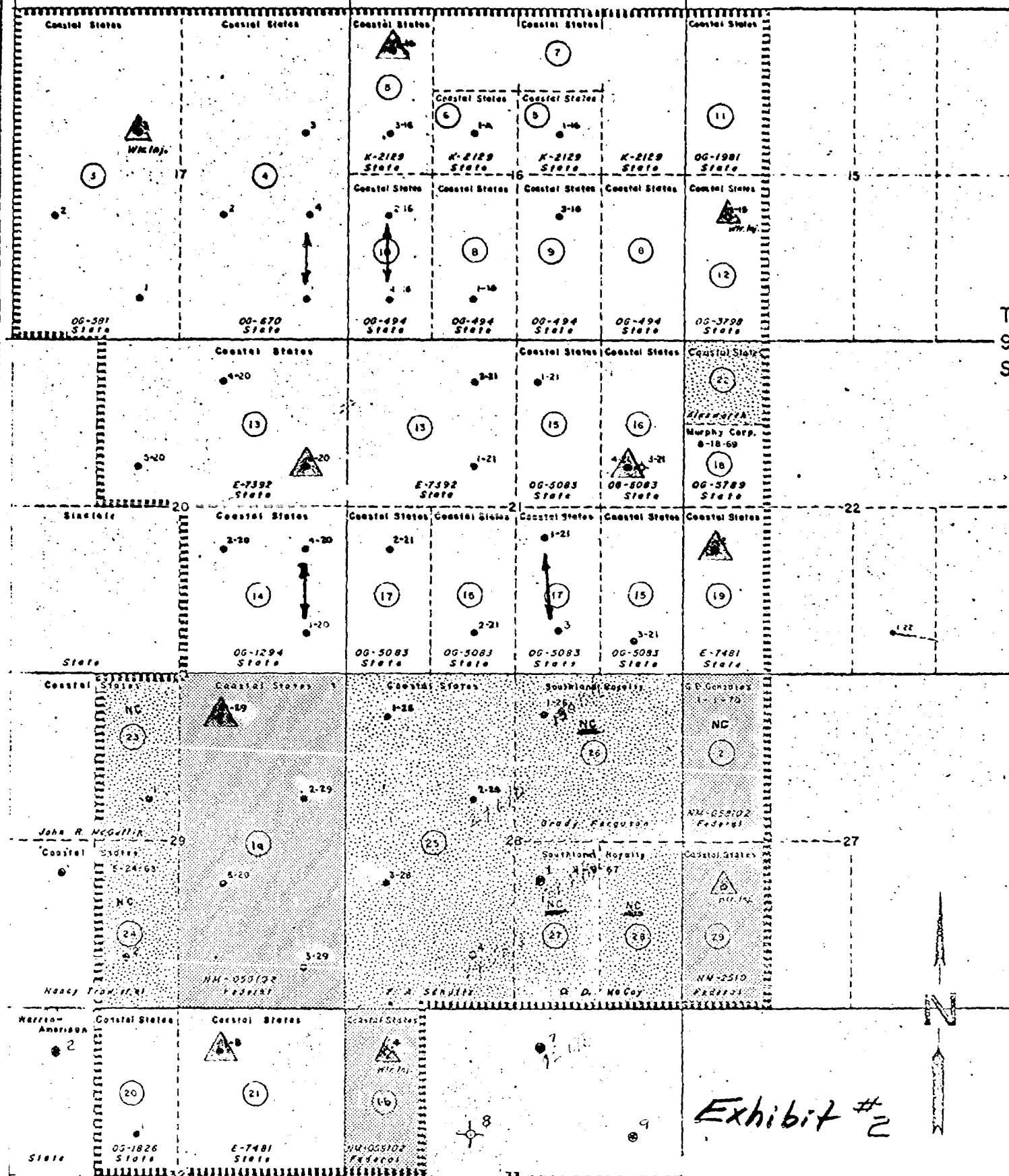
My Commission Expires:
November 19, 1971

I do hereby certify that the foregoing is a complete record of the testimony given at the hearing held on Case No. 2737, heard by me on 3/20 1968.

[Signature] Chairman
New Mexico Oil Conservation Commission



BEFORE EXAMINER NUTTER
 CONSERVATION
 EXHIBIT NO. _____
 CASE NO. _____



LEGEND

- Unit Area
- Tract Number
- State Lands (66.931 % of Unit Area)
- Federal Lands (13.206 % of Unit Area)
- Fee Lands (19.861 % of Unit Area)
- Not Committed to Unit

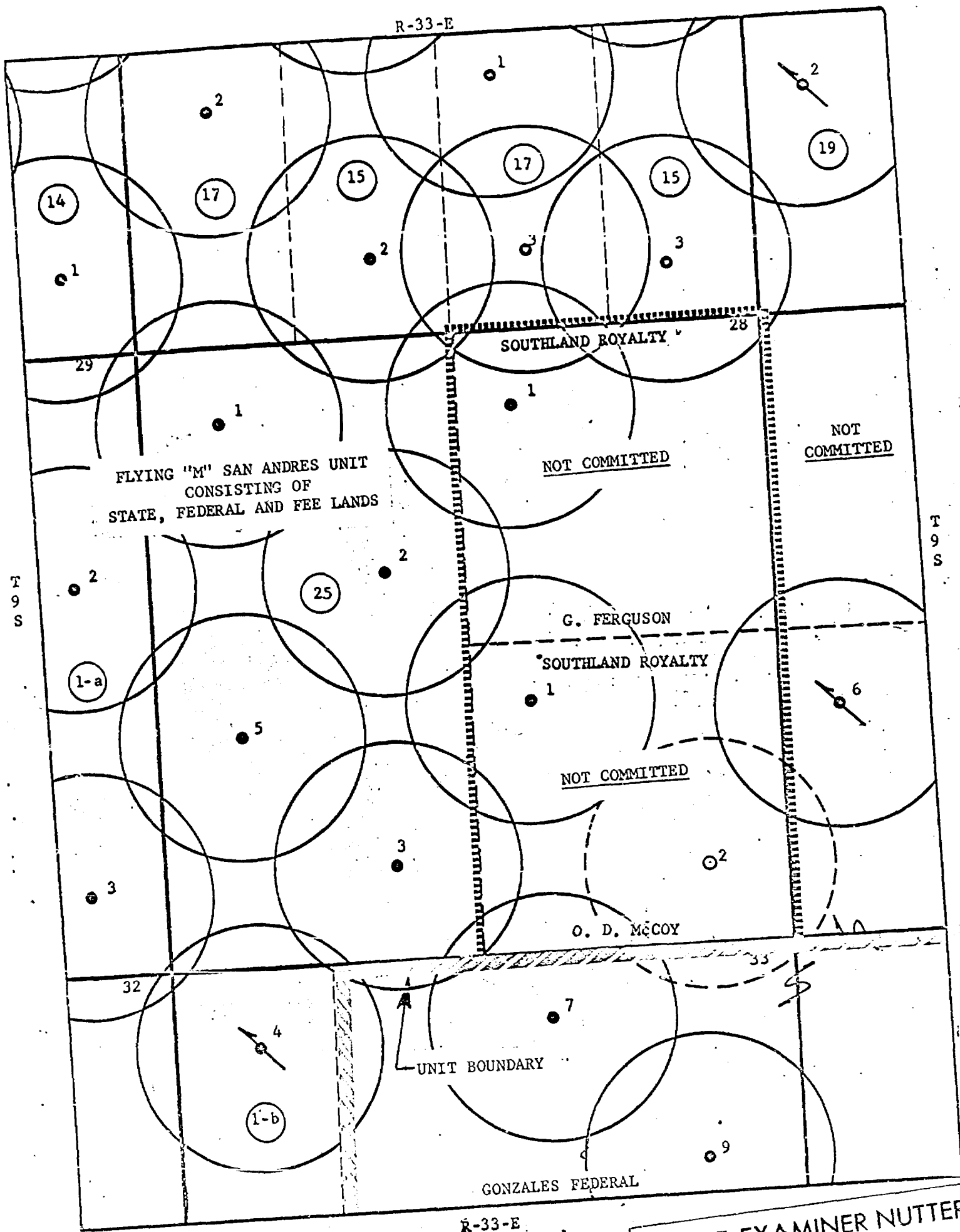
R 33 E

COASTAL STATES GAS PRODUCING COMPANY

PETROLEUM TOWER
 CORPUS CHRISTI, TEXAS

FLYING 'M' FIELD
 LEA COUNTY, NEW MEXICO
 REVISED EXHIBIT "A"
 SAN ANDRES UNIT

Revised Date: 10-1-67

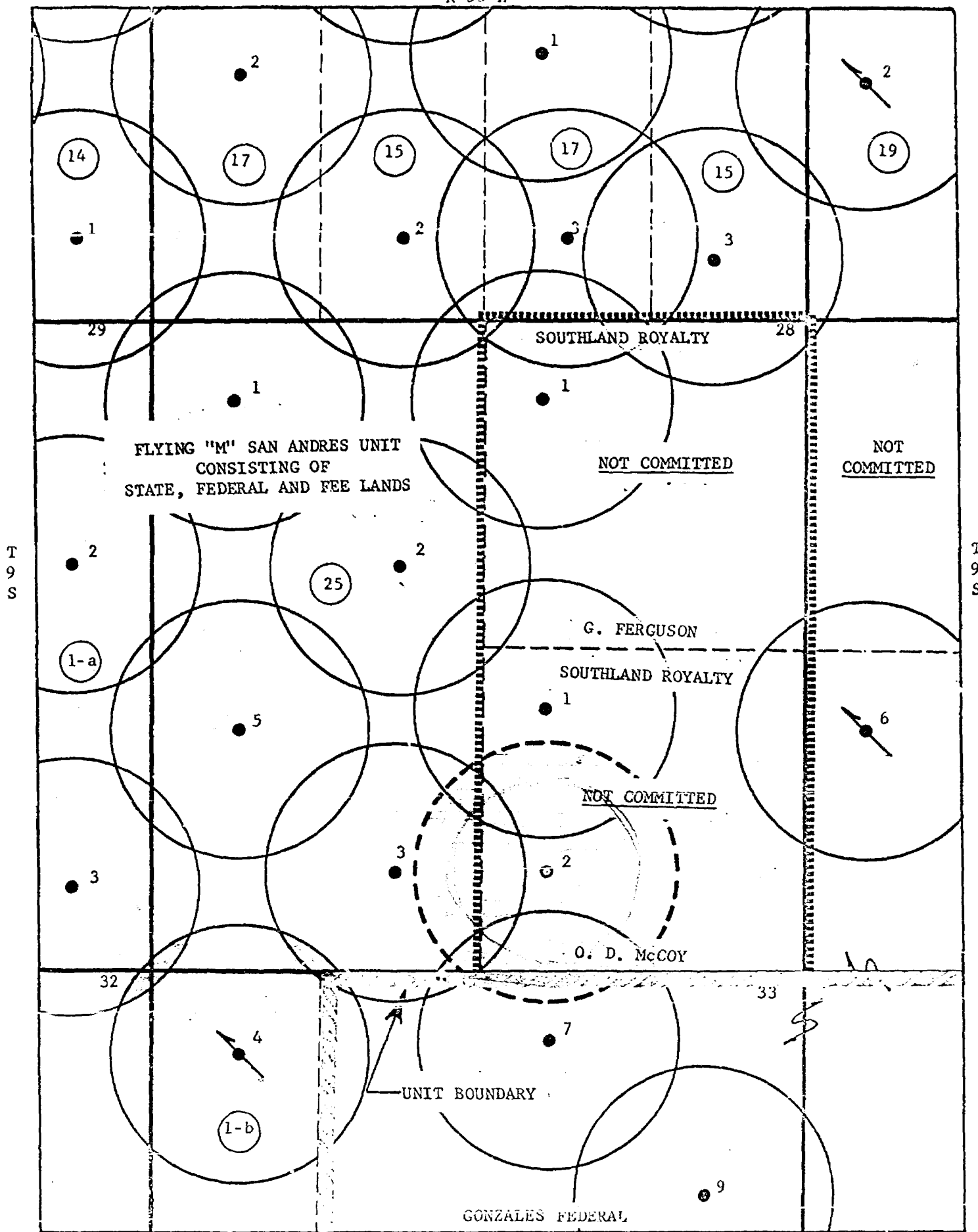


BEFORE EXAMINER NUTTER
CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 7

EXHIBIT NO. 3

COASTAL STATES GAS PRODUCING COMPANY
FLYING "M" SAN ANDRES FIELD
LEA COUNTY, NEW MEXICO

R-33-E



BEFORE EXAMINER NUTTER

CONSERVATION COMMISSION

EXHIBIT NO. _____

CASE NO. _____

R-33-E

EXHIBIT NO. 4

COASTAL STATES GAS PRODUCING COMPANY
FLYING "M" SAN ANDRES FIELD
LEA COUNTY, NEW MEXICO