

CASE 2670: Application of ELWYN C.
HALE for a quadruple completion of
his HALE STATE WELL NO. 3.

-asa//o.

2670

Application, Transcript,
and Exhibits, Etc.

DRAFT

JMD/esr
November 14, 1962

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. 2670

Order No. R-2368

APPLICATION OF ELWYN C. HALE
FOR A QUADRUPLE COMPLETION,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on November 8, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this _____ day of November, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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, Elwyn C. Hale, seeks authority to complete his Hale State Well No. 3, located in Unit H of Section 2, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, as a quadruple completion (combination) in the Devonian, McKee, Waddell, and Ellenburger Pools, North Justis Field, ^{to produce} ~~with the pro-~~ ~~duction of~~ oil from the McKee and Ellenburger formations ^{which} ~~to be~~ through parallel strings of 3 1/2-inch casing and ^{to produce oil} ~~from the~~ Devonian and Waddell formations ~~to be~~ through parallel strings of 2 7/8-inch casing, all cemented in a common well bore.

(3) That the mechanics of the proposed quadruple completion are feasible and in accord with good conservation practices.

(4) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Elwyn C. Hale, is hereby authorized to complete his Hale State Well No. 3, located in Unit H of Section 2, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, as a quadruple completion (combination) in the Devonian, McKee, Waddell, and Ellenburger Pools, North Justis Field, ~~with~~ ^{to produce} the ~~production of~~ oil from the McKee and Ellenburger formations ^{tubed} ~~to be~~ through parallel strings of 3 1/2-inch casing and ^{to produce oil} from the Devonian and Waddell formations ~~to be~~ through parallel strings of 2 7/8-inch casing, all cemented in a common well bore.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

PROVIDED FURTHER, That the applicant shall take ~~needed~~ zone segregation tests upon completion and annually thereafter during the Gas-Oil Ratio Test Period for the Ellenburger ~~zone~~ ^{formation}.

(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.

OIL CONSERVATION COMMISSION

BOX 2045

HOBBS, NEW MEXICO

DATE Oct. 5, 1962

OIL CONSERVATION COMMISSION
BOX 871
SANTA FE, NEW MEXICO

Re: Proposed NSP

Proposed NSL

Proposed NFO

Proposed DC

Gentlemen:

Triple X

I have examined the application dated 10/2/62

for the Elwyn C. Hale Hale State #3-H 2-25-37
Operator Lease and Well No. S-T-R

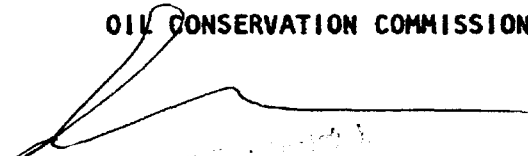
and my recommendations are as follows:

O.K.---E.F.E.

O.K. geologically as proposed---J.W.R.

Yours very truly,

OIL CONSERVATION COMMISSION



ELWYN C. HALE
P. O. Box 667
Hobbs, New Mexico

*Call
26707 or
Haley?*

J.C. Williamson
60620 & J Tower
Midland, Texas

Amerada Petroleum Corp.
Drawer D
Monument, New Mexico

Claude Aikman
Box 2090
San Angelo, Texas

Shell Oil Company
P. O. Box 1957
Hobbs, New Mexico

Cities Service Petroleum Co.
P. O. Box 97
Hobbs, New Mexico

Skelly Oil Company
P. O. Box 38
Hobbs, New Mexico

Continental Oil Company
P. O. Box 427
Hobbs, New Mexico

Western Natural Gas Co.
P. O. Box 1060
Jal, New Mexico

Humble Oil & Refining Co.
Box 2347
Hobbs, New Mexico

Richmond Drilling Co.
P. O. Box 1547
Midland, Texas

DOCKET MAILED

Date 10-11-62
gn

Gentlemen:

We are enclosing herewith, a full file on our application for a Multiple Completion on our Hale State #3 well. The Multiple completion will be a quadruple in the Devonian, McKee, Waddell and Ellenberger zones.

Very truly yours,

Elwyn C. Hale
Elwyn C. Hale

ECH/sw

Enclosure

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

Page 1 of 2

5-1-61

APPLICATION FOR MULTIPLE COMPLETION

Operator Elwyn C. Hale		County Lea	Date October 1, 1962
Address Box 667 Hobbs, New Mexico		Lease Hale State	Well No. 3
Location of Well Unit H	Section 2	Township 25 S	Range 37 E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES X NO
2. If answer is yes, identify one such instance: Order No. P-2109; Operator, Lease, and Well No.: Texaco, Inc. C.L. Erwin #1

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Devonian	McKee	Waddell
b. Top and Bottom of Pay Section (Perforations)	6790 to 6820	8020 to 8096	8136 to 8174
c. Type of production (Oil or Gas)	Oil	Oil	Oil
d. Method of Production (Flowing or Artificial Lift)	Flow	Flow	Flow

4. The following are attached. (Please mark YES or NO)

- Yes a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- Yes b. Plot showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- Yes c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- Yes d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

J.C. Williamson, 606 V&J Tower, Midland, Texas Shell Oil Co., Box 1957, Hobbs, N.M.

Humble Oil & Refining Co., Box 2347, Hobbs, N.M. Skelly Oil Co., Box 38, Hobbs, N.M.

Claude Aikman, Box 2090, San Angelo, Texas Western Natural Gas Co., Box 1060, Jal, N.M.

Cities Service Petroleum Co., Box 97, Hobbs, N.M. Richman Drilg. Co., Box 1547, Midland, Texas

Continental Oil Co., Box 427, Hobbs, N.M.

Amerada Petroleum Corp., Drawer D, Monument, N.M.

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO . If answer is yes, give date of such notification October 1, 1962.

CERTIFICATE: I, the undersigned, state that I am the Superintendent of the Elwyn C. Hale (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Howard P. Helmer
Signature

- * Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

Page 2 of 2

5-1-61

APPLICATION FOR MULTIPLE COMPLETION

Operator Elwyn C. Hale		County Lea	Date October 1, 1962
Address Box 667 Hobbs, New Mexico		Lease Hale State	Well No. 3
Location of Well H	Unit H	Section 2	Township 25 S Range 37 E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES X NO

2. If answer is yes, identify one such instance: Order No. R-2109; Operator, Lease, and Well No.: Texaco, Inc. C.L. Erwin #1

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation			Ellenberger
b. Top and Bottom of Pay Section (Perforations)			8475 8460 to 8075
c. Type of production (Oil or Gas)			Oil
d. Method of Production (Flowing or Artificial Lift)			Flow

4. The following are attached. (Please mark YES or NO)

- Yes a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- Yes c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- Yes d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO . If answer is yes, give date of such notification October 1, 1962.

CERTIFICATE: I, the undersigned, state that I am the Superintendent of the Elwyn C. Hale (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Howard P. Holmes
Signature

* Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

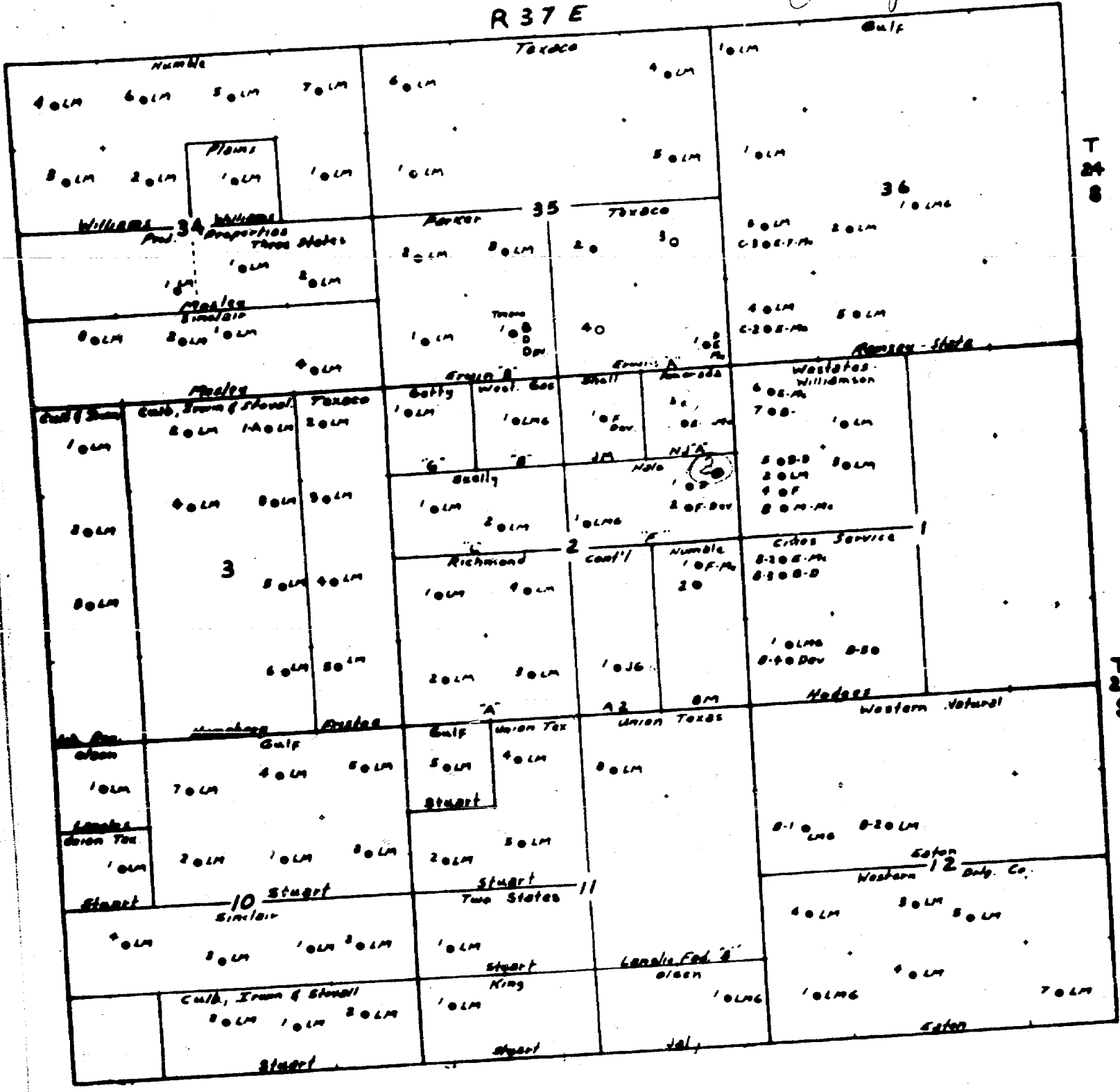
NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

R 37 E

copy 670

T
24
8

T
25
8



Just 2670
 Elwyn C. Hale.
 Hale State #3.

1 1/2" Nom. 2.75" N80 SMLS
 Integral Jt. T68
 Set to perforations
 IN McKee.

3 1/2" OD 9.20" SMLS
 Non Upset J55 Csg
 Set @ 8478'

1 1/2" Nom. 2.75" N80 SMLS
 Integral Jt. T68
 Set to perforations
 IN Ellenberger.

3 1/2" OD 9.20" SMLS
 Non Upset J55 Csg
 Set @ 8477'

Set 12" OD 65# N40
 SMLS Csg @ 507.43'
 Cemented 660 SX-Circulated.

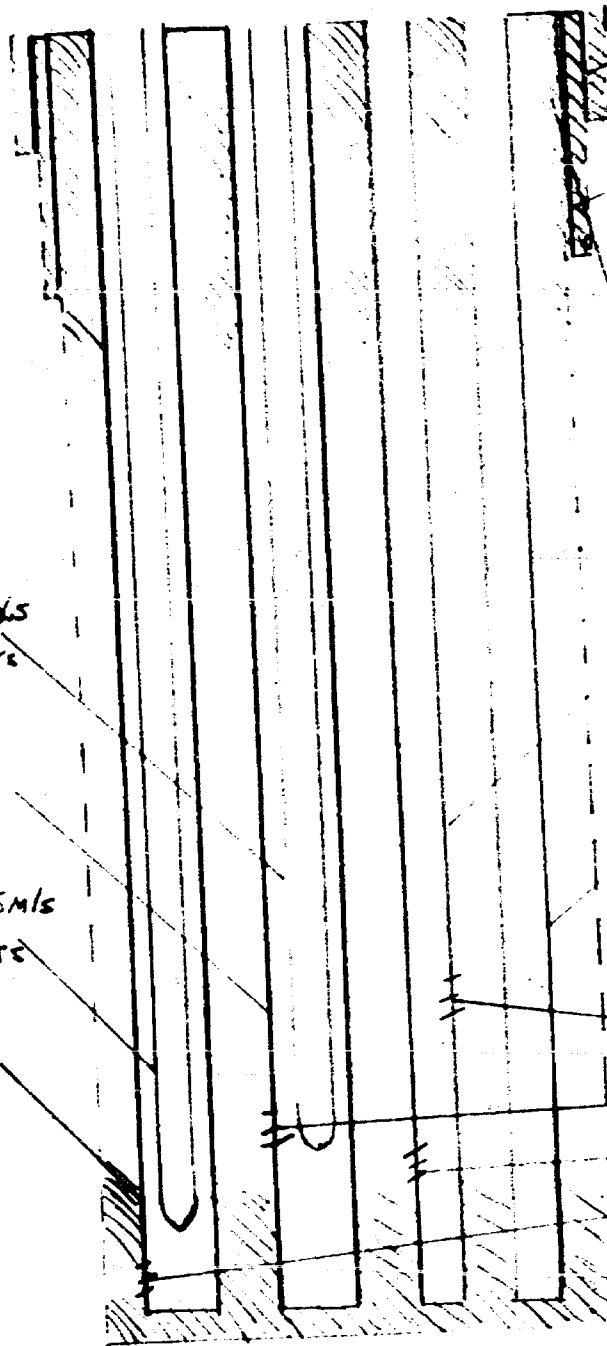
Set 10 1/2" OD 65# SMLS
 Casing 43 13 1/2" 48#
 SMLS Csg @ 507.43'
 Cemented 340 SX-Circulated.

2 1/8" 6.40" J55 N40 E
 SMLS T&C Csg
 Set @ 8477'

2 1/8" 6.40" J55 N40 E
 SMLS Outtruss Csg
 Set @ 8479'

Cemented 4 strings of
 Csg in 9 1/8" hole.
 2000 SX FROM 8480'
 Temp. Surri cannot back
 to 800' from Surface

Perforate Dogonion
 McKee
 (8020-8044) 8044-8076 (8086-8096)
 Perforate Waddo
 (8124-8158) 8158-8174
 Perforate Ellenberger
 T.D. 8480 (8460-8475)



Memo

From
D. S. NUTTER
CHIEF ENGINEER

To

Elwyn C. Hale
120 Regua Rd
Piedmont, Calif
^{Home}
Ph Olynie 38321
ofc Garfield
11461
San Francisco

OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

October 25, 1962

Mr. Elwyn C. Hale
P. O. Box 667
Hobbs, New Mexico

Re: Case No. 2670, Application of
Elwyn C. Hale for a Quadruple
Completion, Lea County, New
Mexico

Dear Mr. Hale:

The above-styled case came on for hearing before Examiner Elvis A. Uts at 9 o'clock a.m. on Wednesday, October 24, 1962, in the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico. No one appeared on your behalf. As I felt there might be a possibility that there was some misunderstanding as to the hearing date or some other inadvertent reason for the non-appearance, I moved the examiner to continue your case to the next examiner hearing which will be held at 9 o'clock a.m. on November 8, 1962, in the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico. Please be advised that if no one appears for you on November 8, 1962, it will be necessary for me to move to dismiss the case for lack of prosecution.

I would appreciate your advising me, prior to November 8, 1962, if you no longer desire to continue with this application. Once again we will mail a copy of the docket to you prior to the hearing date.

Please contact me if you need any additional information concerning this matter.

Very truly yours,

JAMES M. DURRETT, JR.,
Attorney

JMD/esr

DOCKET MAILING

Date 10/26/62
lp

DOCKET: EXAMINER HEARING - THURSDAY - NOVEMBER 8, 1962

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 2682: Application of Pan American Petroleum Corporation for the creation of a new pool and the establishment of special rules and regulations, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool to be designated the Simpson-Gallup Oil Pool comprising the S/2 of Section 23, SW/4 of Section 24, N/2 of Section 25, and the NE/4 of Section 26, Township 28 North, Range 12 West, San Juan County, New Mexico. Applicant further seeks the establishment of special pool rules including the provisions for 80-acre proration units.
- CASE 2683: Application of Curtis R. Inman for approval of a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Carnero Peak Unit Area comprising 12,151 acres, more or less, of State, Federal and Fee lands in Townships 22 and 23 South, Ranges 24 and 25 East, Eddy County, New Mexico.
- CASE 2684: Application of Gulf Oil Corporation for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its H. T. Mattern (NCT-A) Well No. 3, located in Unit P of Section 24, Township 21 South, Range 36 East, Lea County, New Mexico, as a triple completion (conventional) to produce oil from the Paddock, Blinebry, and Drinkard Oil Pools through parallel strings of tubing.
- CASE 2685: Application of Gulf Oil Corporation for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its Graham State (NCT-I) Well No. 2 located in Unit L of Section 19, Township 21 South, Range 37 East, Lea County, New Mexico, as a triple completion (conventional) to produce oil from the Paddock, Blinebry, and Drinkard Oil Pools through parallel strings of tubing.
- CASE 2686: Application of Marathon Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State Hansen Well No. 5, located in Unit H of Section 16, Township 20 South, Range 37 East, Lea County, New Mexico, as a dual completion

CASE 2686 (Cont.)

(conventional), to produce oil from the Weir-Blinebry and Monument-Tubb Pools through parallel strings of 1.41 ID and 2-inch ID tubing.

CASE 2687:

Application of Shell Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its Emerald Unit Well No. 1 located in Unit C of Section 23, Township 16 South, Range 32 East, Lea County, New Mexico as a dual completion (Conventional) to produce oil from the Penrose and Wolfcamp formations through parallel strings of tubing.

CASE 2688:

Application of Socony Mobil Oil Company for a quadruple Completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State Bridges Well No. 95 located in Unit P of Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, as a quadruple completion (conventional) to produce oil from the Abo, Wolfcamp, Pennsylvanian and Devonian formations through parallel strings of tubing.

CASE 2689:

Application of Socony Mobil Oil Company for a dual completion and certain administrative procedures, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State Bridges Well No. 27-DD located in Unit H of Section 26, Township 17 South, Range 34 East, Lea County, New Mexico as a dual completion (conventional) to produce oil from the Vacuum (San Andres) Pool and an undesignated Yeso pool through parallel strings of 2 3/8 inch and 2 3/8 x 1 1/4 inch tapered tubing strings. Applicant further seeks the establishment of administrative procedures whereby similar dual completions could be approved in this area.

CASE 2690:

Application of Phillips Petroleum Company for a special allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the assignment of a special allowable to its Mexco "A" Well No. 2, located in Unit I of Section 2, Township 17 South, Range 32 East, Maljamar Pool, Lea County, New Mexico. Said well offsets and has received a response from Boller and Nichols Water-flood project in said Section 2.

- CASE 2691: Application of El Paso Natural Gas Company for the creation of a new gas pool and establishment of special rules and regulations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for the Morrow formation underlying Sections 18, 19, 20, and 29, Township 19 South, Range 32 East, Lea County, New Mexico. Applicant further seeks establishment of special pool rules including provisions for 640-acre proration units and the allocation of allowables to non-marginal wells in the proportion that each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.
- CASE 2692: Application of Amerada Petroleum Corporation for an exception to a Commission shut-in order, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 15 (A) Order R-1670, Southeast New Mexico Gas Proration Rules and Regulations, to permit its Shell-Amerada State "A" Unit Well No. 1 located in Unit P, Section 33, Township 11 South, Range 33 East, Bagley-Lower Pennsylvanian Gas Pool, Lea County, New Mexico, to produce a minimum of 2000 MCF per month in exception to an overproduction shut-in notice.
- CASE 2693: Application of NWJ Producing Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox oil well location 330 feet from the South and West lines of Section 14, Township 15 South, Range 38 East, Medicine Rock-Devonian Pool, Lea County, New Mexico, in exception to Rule 3, Order R-2315, Medicine Rock-Devonian Pool Rules.
- CASE 2694: Application of Southern Union Production Company for an amendment to the Northwest New Mexico Gas Proration Rules and Regulations. Applicant, in the above-styled cause, seeks an amendment to Order R-1670 as amended by Order No. R-2086, Rules and Regulations for Prorated Gas Pools, San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico, to permit wells ordered shut-in for extended periods to make up accumulated overproduction to produce a minimum of 500 MCF each month during such shut-in.
- CASE 2695: In the matter of the hearing called on the motion of the Oil Conservation Commission to consider revising Commission Orders R-333-C & D and R-333-E as the same relate to the season for taking Northwest New Mexico gas well deliverability tests and to the procedure for taking and calculating such tests, San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico.

CASE 2670: (Cont)

Application of Elwyn C. Hale for a quadruple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the quadruple completion (combination) of his Hale State Well No. 3, located in Unit H of Section 2, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Devonian, McKee, Waddell and Ellenburger Pools, North Justis Field, through two strings of 2 7/8 inch casing and two strings of 3 1/2 inch casing all cemented in a common well bore.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 11/9/62

CASE 2670

Hearing Date 9 am 11/8/62
DSN @ SF

My recommendations for an order in the above numbered cases are as follows:

Approve Elwyn C. Hale's quadruple
(combination)
completion in the Devonian, McKee
Waddell & Ellenberger formations,
North Justis Fld, Rea Co., N.M.
Well is his Haze State #3, in
Unit H, 2-25 S-37 E.

It is completed with parallel strings
of $3\frac{1}{2}$ " casing to the McKee & Ellenberger
and parallel strings of $2\frac{1}{8}$ " casing
to the Devonian & Waddell, all cemented
in a common well bore.

Require segregation tests ~~also~~ upon
completion & annually thereafter during
GOR test for the Ellenberger.

Landman
Staff Engineer

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



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

P. O. BOX 871
SANTA FE

November 21, 1962

Mr. Clarence Hinkle
Harvey, Dow & Hinkle
Attorneys at Law
Post Office Box 10
Roswell, New Mexico

Re: Case No. 2670
Order No. B-2368
Applicant:
Elwyn C. Hale

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ii/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Astec OCC

OTHER

**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. 2670
Order No. R-2368**

**APPLICATION OF ELYN C. HALE
FOR A QUADRUPLE COMPLETION,
LEA COUNTY, NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on ~~November 2~~, 1962, at Santa Fe, New Mexico, before Daniel S. Mutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 21st day of November, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Mutter, 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, Elwyn C. Hale, seeks authority to complete his Hale State Well No. 3, located in Unit H of Section 2, Township 25 South, Range 37 East, N25E, Lea County, New Mexico, as a quadruple completion (combination) in the Devonian, McKee, Waddell, and Ellenburger Pools, North Justis Field, to produce oil from the McKee and Ellenburger formations through parallel strings of tubed 3 1/2-inch casing and to produce oil from the Devonian and Waddell formations through parallel strings of 2 7/8-inch casing, all cemented in a common well bore.

(3) That the mechanics of the proposed quadruple completion are feasible and in accord with good conservation practices.

(4) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Elwyn C. Hale, is hereby authorized to complete his Hale State Well No. 3, located in Unit H of Section

-2-

CASE No. 2670
Order No. R-2368

2, Township 25 South, Range 37 East, NEPM, Lea County, New Mexico, as a quadruple completion (combination) in the Devonian, McKee, Waddell, and Ellenburger Pools, North Justis Field, to produce oil from the McKee and Ellenburger formations through parallel strings of tubed 3 1/2-inch casing and to produce oil from the Devonian and Waddell formations through parallel strings of 2 7/8-inch casing, all cemented in a common well bore.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

PROVIDED FURTHER, That the applicant shall take zone segregation tests upon completion and annually thereafter during the Gas-Oil Ratio Test Period for the Ellenburger formation.

(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



E. L. Mechem

EDWIN L. MECHEM, Chairman

E. S. Walker

E. S. WALKER, Member

A. L. Porter, Jr.

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

esx/

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 24, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Elwyn C. Hale for a quadruple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the quadruple completion (combination) of his Hale State Well No. 3, located in Unit H of Section 2, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Devonian, McKee, Waddell and Ellenburger Pools, North Justis Field, through two strings of 2 7/8 inch casing and two strings of 3 1/2 inch casing all cemented in a common well bore.

CASE 2670

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 2670.

MR. DURRETT: Application of Elwyn C. Hale for a quadruple completion, Lea County, New Mexico.

MR. UTZ: Is Elwyn C. Hale or his representative present? Case 2670 will be set at the end of this docket for further disposition.

* * * * *

MR. UTZ: We have one more case which we'll call again, Case 2670.

MR. DURRETT: Application of Elwyn C. Hale for a quadruple completion, Lea County, New Mexico. If the Examiner

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1112

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691



DEARNLEY-MEIER REPORTING SERVICE, Inc.

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please, apparently there is no one here on behalf of the Applicant. I therefore move the Examiner to continue this case to the next Examiner Hearing.

MR. PORTER: I might add at this point, Mr. Examiner, that I tried to contact the party that filed the application without success this afternoon.

MR. UTZ: It is my understanding that the docket has already been made on the Examiner Hearing for November 8th. Is it necessary to advertise this on that docket?

MR. DURRETT: No, sir, it's not necessary to do it under the rules.

MR. UTZ: Case 2670 will be continued to the November 8th Examiner Hearing.

The hearing is adjourned.

(Whereupon, the hearing was adjourned.)

* * *



STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

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 Hearing was reported by me in stenotype, and that the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 24th day of November, 1962, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:
June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing of Case No. 2620, heard by me on Oct. 24, 1962.

Thos. A. [Signature], Examiner
New Mexico Oil Conservation Commission

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BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 8, 1962

EXAMINER HEARING

IN THE MATTER OF: (Cont))

Application of Elwyn C. Hale for a quadruple)
completion, Lea County, New Mexico. Appli-)
cant, in the above-styled cause, seeks approv-)
al of the quadruple completion (combination)) Case
of his Hale State Well No. 3, located in Unit) 2670
H of Section 2, Township 25 South, Range 37)
East, Lea County, New Mexico, in such a manner)
as to produce oil from the Devonian, McKee,)
Waddell and Ellenburger Pools, North Justis)
Field, through two strings of 2 7/8 inch)
casing and two strings of 3 1/2 inch casing)
all cemented in a common well bore.)

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please.

The next case will be 2670.

MR. DURRETT: Application of Elwyn C. Hale for a
quadruple completion, Lea County, New Mexico.

MR. HINKLE: Clarence Hinkle, Hervey, Dow & Hinkle,
Roswell, appearing for Elwyn Hale. We have one witness, Mr.
Howard Holmes.

(Witness sworn.)

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HOWARD HOLMES

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q Your name is Howard Holmes?

A Howard Holmes.

Q You live at Hobbs?

A In Hobbs, New Mexico.

Q By whom are you employed?

A I am employed as Superintendent for Mr. Elwyn C. Hale.

Q Can you state briefly to the Examiner your experience in the oil business?

A Started in the oil business in 1927. Have been continuously employed there. I was a drilling contractor for twenty-five years, from 1935 to 1960. I have drilled and supervised many wells. I am an owner of oil wells and I have been acting as Superintendent for Mr. Hale.

Q Did you supervise the drilling of the Hale State No. 3 well?

A I did.

Q Where is that well located?

A It's located in the Southeast Quarter of the Northeast

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Quarter of Section 2, 25, 37.

Q Has the well been completed?

A It is in the process of being completed. The physical facts as shown on the plat are all completed, yes, sir.

Q Are you familiar with the application of Mr. Hale for a quadruple completion of the Hale State No. 3?

A I supervised the making of it and signed it.

(Whereupon, Applicant's Exhibit No. 1 was marked for identification.)

Q Mr. Holmes, refer to the Exhibit No. 1 and explain what it is and what it shows.

A This is a schematic diagram of the well as it has been put together physically, and also is in general a chronologic chart of what we have done. You want it in detail?

Q Yes, if you will go ahead and explain.

A You'll notice that we have set surface pipe as explained to the right and have cemented it and circulated cement. The surface pipe being approximately 507 feet.

Q That's shown by A, the surface pipe?

A That is correct.

Q Surface string?

A Yes, sir. Then we set intermediate 10-3/4" expanded at the top of the hole by some 45 of 10-3/8 for the purpose of



getting more room for a well head connection at the top and cemented it, 3800 sacks of cement, and circulated cement all the way around.

Q Did you use any special kind of cement?

A It was a 50-50 Posvex which was a light aggregate and an expander. We then drilled a 9-7/8 hole to 8480 feet, at which time we set two strings of 3-1/2" as indicated at the top of the plat by strings 1 and 2. We set two strings of 2-7/8" which are designated as 3 and 4. Three of the strings were set all of the way to bottom, and at the fourth string which we have designated as string 3 and which would be the Waddell string, did not get to bottom for mechanical reasons. It was our intention to put them all the way to bottom.

Q Is it through all of the producing formations?

A All strings are through all of the production formations except the one string which did not go through the Ellenburger. Each string is equipped with a float shoe and a float collar and each string had the centralizers, which we also used as turbulizers, in a staggered manner, which were to hold the various strings of pipe apart. The spacing is explained in the exhibit over here in N. We covered the Ellenburger, the Waddell, the McKee with one set of centralizers and turbulizers, or turbulizers on a 30 foot or one per joint base staggered, then we left an

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interval and we covered the Montoya, the Fusselman and the Devonian with another series of centralizers or turbulizers, staggered, the turbulizer point being to disturb the cement and disturb its flow and cause it to circulate in all of the cracks and crannies around this. We pumped cement through all four strings simultaneously and we ran a temperature survey, finding the top of the cement at 800 feet from the surface of the ground, some 2600 feet up inside the intermediate string.

At that time we were concerned on the basis of some historic troubles in the field of an interval lying between the McKee and the Waddell Pool, and before we did anything else we went in and perforated on a guided basis, oriented basis.

Q That's between the two zones, the McKee and the Waddell?

A Two holes at 8127 in the best shale we could find between the two zones, and we pumped out and squeezed into the shale what we would call a block squeeze, for the purpose of dividing those two zones, 160 sacks of cement, which we kept on pumping until we squeezed that cement for a squeeze job of 5,000 pounds at maximum pressure.

Q Allow me to interrupt you there. What is the interval between the McKee and the Waddell formation?

A Roughly 60 feet.

Q That was cemented?



A We put what we think is a block or a dividing cement block in between the two, yes, sir. Then in our work of drilling out we discovered that this shorter string here --

Q Which one are you referring to now?

A String No. 3, which we are calling the Waddell string, when we drilled our plugs we found that we were getting, losing fluid through the end of the pipe or through the shoe. Then we pumped 200 sacks of en core cement out through the shoe and squeezed that with a pressure of 4,000 pounds which we, this was enough cement to fill 800 feet of hole and we considered that we had put a block squeeze in between the Waddell and the Ellenburger with that squeeze job. After that we perforated the four zones, the Ellenburger, and the perforations on those zones are shown in Q, and the McKee are shown in R and the Waddell, and they are shown in S, and the Devonian and they are shown in T.

Q Allow me to interrupt you again. Before you perforated the tubing in any of the formations, did you make any tests to see that you had a good cement job?

A Oh, yes. We put 2,000 pounds of pressure on each string of casing in this case and they all held. They were good cement jobs in terms of the pipe, but when we, but we did find a leak in the bottom of that No. 3 string which we corrected with this 200 sacks squeeze job.

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Q Go ahead.

A After that, after having perforated, we opened up the perforations by putting 500 gallons of mud acid in the Ellenburger; the McKee, when we began to working with it, came in naturally and needed none. In the Waddell we put 500 gallons of mud acid and in the Devonian we put 500 gallons of mud acid. Then under the ruling of the Commission wherein we were instructed that no string larger than 2-7/8 could be produced in Southeast New Mexico without another string of tubing in them, we installed a string of tubing in strings 1 and 2, which were the two strings of 3-1/2. These were strings of 1-1/2" nominal, which is 1.90 on O.D. is 1.61 on I.D. These are U and V on the chart. They are with the 2.116 O.D., integral joints, it's N-80 seamless and on the bottom of each of those strings we put 20 feet of perforations bull plugged and set them to the depths indicated, 8437 on the Ellenburger and 7918.99 on the McKee.

Q What method did you use in perforating so that you would be sure that you would not rupture or perforate any of the other tubing strings?

A The method I think is at least semi conventional, it is the method of running radioactive material in the other three strings and orienting against those radioactive materials and perforating to the outside. At the same time we put pin

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recorders on all of these strings of tubing and held pressure through on all other three strings while we perforated the fourth string in each case, and we had no indication of any change of pressure. Due to the perforations we conceived that we had perforated without perforating another string.

Q Is it your opinion that by this method of completion there can be any communication between the different zones?

A We have taken temperature surveys which do not indicate it. We have pumped pressure which do not indicate it. We have seen no indication of it in our swabbing; we squeezed between zones on a preventive basis, it is my opinion that we do not have communication.

Q Is it your opinion that this well can be produced in such a manner that the production from each zone can be kept separate and measured separately?

A Yes, sir. Without communication and with perforations out of each string into each separate zone, the oil from that zone would come through a separate and independent string of pipe. It is handled as an independent flow from the well through the flow lines. Each zone in each well on this lease, in other words, there are two duals, that is four zones, and there are four zones in this well. This is No. 3, makes a total of eight zones producing, and we have eight independent metering



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separators applied to this zone, to this lease. My answer to that question would be yes.

Q Is there anything else you would like to observe with respect to the completion of this well?

A No. I think it has been carefully done. I know it has been carefully done. We have had no problems which indicated anything abnormal or odd in the matter. It was done after consultation with the local office of the Commission in Hobbs, and I think we can do what the order calls for as far as I know.

Q Have there been any other wells in the area that have used the same method of completion, quadruple completion?

A Yes, this is a common practice in this particular field. The Amerada and the Texas Company have been the two top exponents of the method, and I think Amerada have two wells and Texas Company have some ten wells completed on a multiple string basis with as many as a quadruple.

MR. HINKLE: We would like to offer Exhibit No. 1.

MR. NUTTER: Applicant's Exhibit No. 1 will be received in evidence.

(Whereupon, Applicant's Exhibit No. 1 was received in evidence.)

MR. HINKLE: That's all the direct.

CROSS EXAMINATION



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BY MR. NUTTER:

Q Mr. Holmes, will it be possible to artificially lift each of the zones if it becomes necessary?

A Yes, we have full information in our files. As a matter of fact, I have it with me whereby we have investigated, the holes are of adequate size, they are perforated in an adequate manner, the tubing as run is adaptable, and the oil can be lifted by the hydraulic method similar to Kobe.

Q I see.

A In substantial volumes.

Q Are these four zones listed on the recent Commission memorandum which set out certain zones that would be eligible for administrative approval of quadruple completions similar to this?

A I do not know. I think not, because the order that I saw said that duals would be subject, I can't answer that.

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

(Witness excused.)

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

MR. HINKLE: No, that's all.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2670? We will take the case under advisement.



STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 11th day of December, 1962.

Ada Dearnley
Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing of Case No. 2670 heard on 11-8, 1962.

Chas. E. ..., Examiner
New Mexico Oil Conservation Commission

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