

CASE 2664: Application of SOUTHWEST  
PRODUCTION for permission to dually  
complete its DAVIS FEDERAL WELL NO.1.

SW  
No. 1  
Dec 24  
P.O.  
Corp

-asa/v/o.

2264

---

plication, Transcript,

and Exhibits, Etc.

OIL CONSERVATION COMMISSION  
DISTRICT

OIL CONSERVATION COMMISSION  
BOX 871  
SANTA FE, NEW MEXICO

DATE 9-24-62

Re: Proposed NSP \_\_\_\_\_

Proposed NWU \_\_\_\_\_

Proposed NSL \_\_\_\_\_

Proposed NFO \_\_\_\_\_

Proposed DC ✓

Gentlemen:

I have examined the application dated 9-19-62  
for the Southwest Production Company Davis Fed #1  
Operator Lease and Well No. 2-24-26N-11W  
S-T-R

and my recommendations are as follows:

approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,










Ernest C. Chandler

R-11-W

R-11-W

T  
26  
N

T  
26  
N

<div>Randel</div> <div>1</div> <div></div> <div>14</div> <div>SKELLY</div>	<div>Berger</div> <div>5</div> <div></div> <div>TENNECO</div>	<div>Platero</div> <div>2</div> <div></div> <div>SWP</div>	<div>13</div> <div>SKELLY</div>	<div>19</div> <div>EPNG</div>
<div></div> <div>2</div> <div>Berger</div> <div>23</div> <div>TENNECO</div>	<div>1</div> <div></div> <div>Harkes Navajo</div> <div>SWP</div>	<div>Platero</div> <div>1</div> <div></div> <div>24</div> <div></div> <div>1</div> <div>Davis</div> <div>SWP</div>	<div>19</div> <div>EPNG</div>	
<div>26</div> <div>1</div> <div></div> <div>Davis</div> <div>2</div> <div></div> <div>Davis</div> <div>SKELLY</div>	<div>25</div> <div>SKELLY</div>	<div>EPNG</div> <div>3</div>		

R-11-W

R-11-W

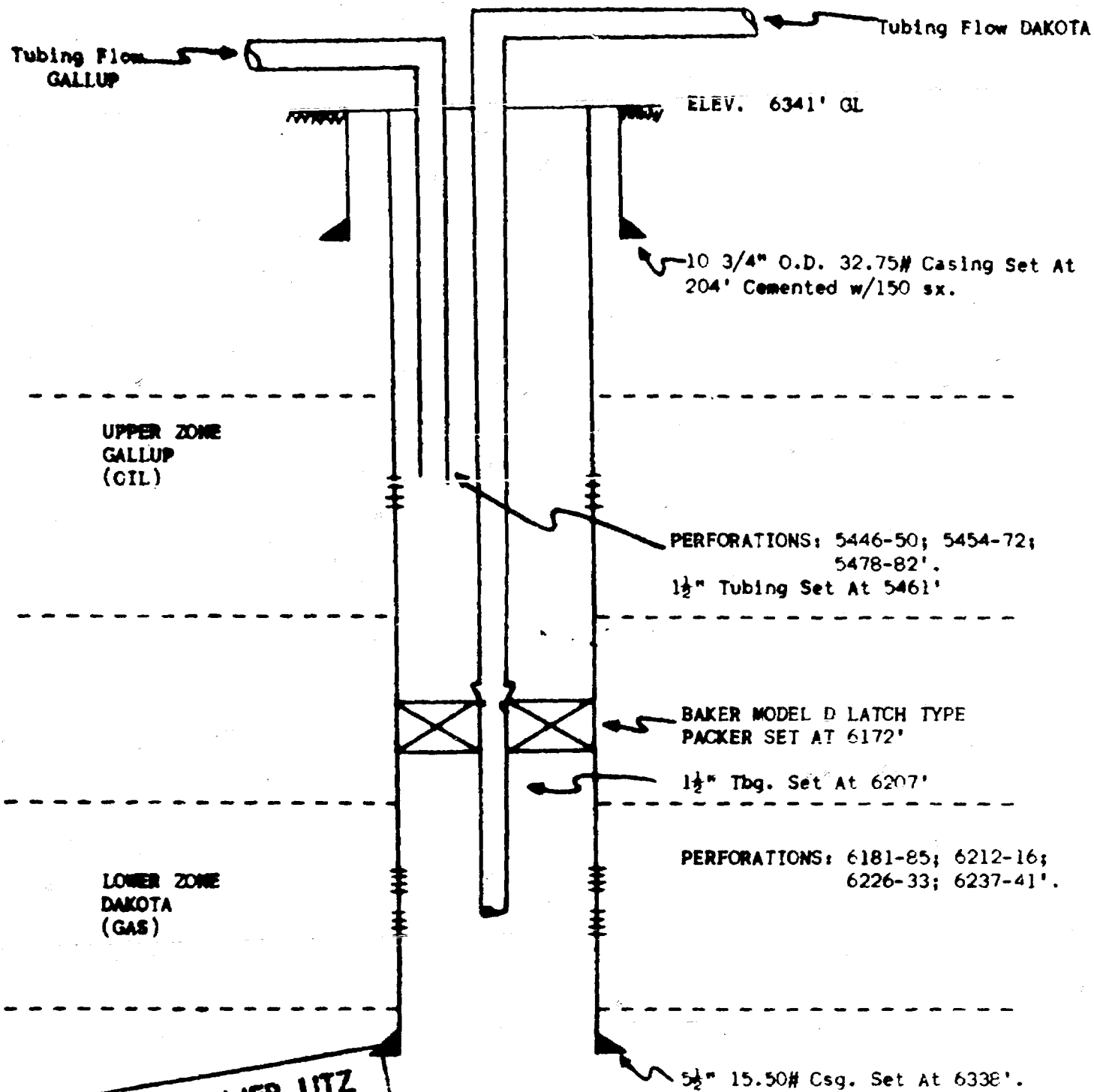
**BEFORE EXAMINER UTZ**

**OIL CONSERVATION COMMISSION**

EXHIBIT NO. 2664

CASE NO. 2664

DIAGRAMMATIC SKETCH OF DUAL COMPLETION  
INSTALLATION



BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 2  
CASE NO. 2664 OPERATOR  
LEASE  
LOCATION:

TD: 6338'  
PB: 6326'

Southwest Production Company  
Davis Federal #1  
1850 FSL 790 FWL NW/4 SW/4 Section 24-T26N-R11W

*Case 2664*

SOUTHWEST PRODUCTION COMPANY

FARMINGTON DISTRICT OFFICE  
207 PETROLEUM CLUB PLAZA  
FARMINGTON, NEW MEXICO  
325-0276

CARL W. SMITH  
PRODUCTION SUPERINTENDENT

September 19, 1962

*does not meet tubing  
requirements in oil zone*

New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Re: Application for Dual Completion  
Southwest Production Company  
Davis Federal #1 (SF-079937)  
NW/4 SW/4 Sec. 24-T26N-R11W,  
San Juan County, N. M.

Gentlemen:

Enclosed are two copies of Application for Dual Completion on the  
above well, two copies are also being sent to District #3 office  
in Aztec.

If any additional information is needed for your consideration  
of this application for administrative approval, please advise  
and we will promptly furnish same.

Yours very truly,

SOUTHWEST PRODUCTION COMPANY

*Carl W. Smith*

Carl W. Smith  
Superintendent

CWS:jp

cc: Southwest Production Company  
3108 Southland Center  
Dallas 1, Texas

DOCKET MAILED

Date *9/28/62*

4-OCC, SF, Aztec  
1-Tenneco  
1-Skelly  
1-D  
1-F

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

APPLICATION FOR DUAL COMPLETION

*Carl 2665* 7-3-58

Field Name Gallegos-Gallup & Basin Dakota		County San Juan	Date 9/19/62
Operator Southwest Production Co.		Lease Davis Federal	Well No. 1
Location of Well Unit L	Section 24	Township 26N	Range 11W

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES ☒ NO ☐
2. If answer is yes, identify one such instance: Order No. DC-1000; Operator, Lease, and Well No.:  
Skelly Oil Co., Davis #2

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	GALLUP	DAKOTA
b. Top and Bottom of Pay Section (Perforations)	5446-5450; 5454-5472; 5478-5482	6181-6185; 6212-16; 6226-6233; 6237-6241
c. Type of production (Oil or Gas)	OIL	GAS
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

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

- ☒ a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, 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.
- ☒ 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.
- ☐ c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.\*
- ☒ 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.

Tenneco Oil Co., L. B. Plumb, P. O. Box 1714, Durango, Colorado

Skelly Oil Co., Harold Aab, Box 38, Hobbs, N. M.

El Paso Natural Gas Company, E. S. Oberly, P. O. Box 990, Farmington, N. M.

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ . If answer is yes, give date of such notification 9/19/62

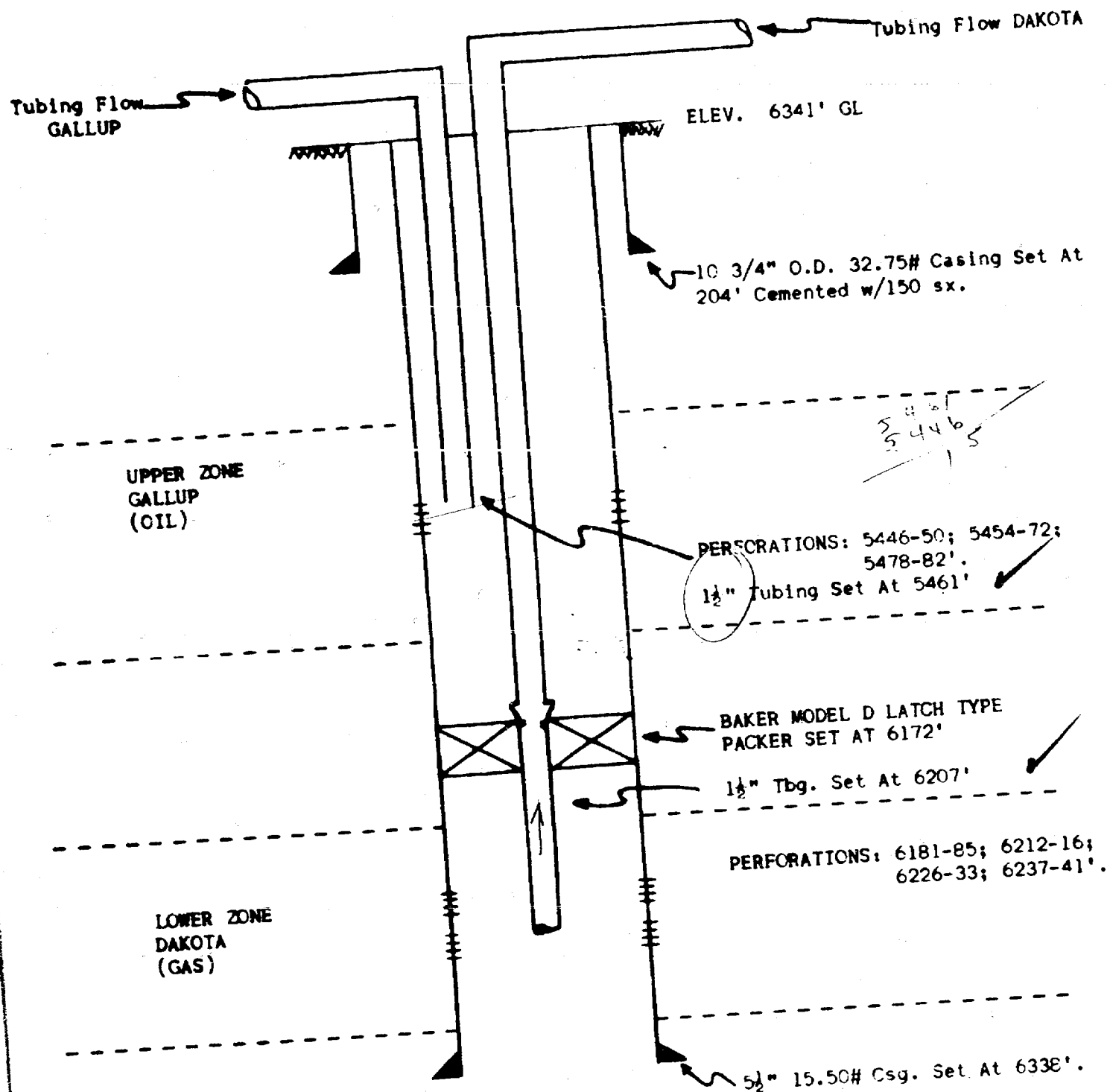
CERTIFICATE: I, the undersigned, state that I am the Superintendent of the Southwest Production Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and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

DOCKET MAILED

*Carl W. Smith*  
Signature

- \* ~~Date~~ ~~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 dual completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

DIAGRAMMATIC SKETCH OF DUAL COMPLETION  
INSTALLATION



ID: 6338'  
PE: 6326'

OPERATOR: Southwest Production Company  
LEASE: Davis Federal #1  
LOCATION: 1850 FSL 790 FWL NW/4 SW/4 Section 24-T26N-R11W












R-11-W

R-10-W

T  
26  
N

T  
26  
N

<div>Randel</div> <div>1</div> <div></div> <div>14</div> <div>Berger</div> <div>5</div> <div></div> <div>TENNECO</div> <div>SKELLY</div>	<div>Platero</div> <div>2</div> <div></div> <div>SWP</div> <div>SKELLY</div>	<div>18</div> <div>EPNG</div>	
<div></div> <div>2</div> <div>Berger</div> <div>23</div> <div>TENNECO</div>	<div>1</div> <div></div> <div>Harkes</div> <div>Navajo</div> <div>SWP</div>	<div>Platero</div> <div></div> <div>1</div> <div>24</div> <div></div> <div>1</div> <div>Davis</div> <div>SWP</div>	<div>19</div> <div>EPNG</div>
<div>1</div> <div></div> <div>Davis</div> <div>26</div> <div></div> <div>2</div> <div>Davis</div> <div>SKELLY</div>	<div>25</div> <div>SKELLY</div>	<div>EPNG</div> <div>30</div>	

R-11-W

R-10-W

No. 29-62

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 10, 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 2647: (Continued)  
Application of Carper Drilling Company for a tubingless completion, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its Baetz Well No. 1, located in the SE/4 SW/4 of Section 35, Township 14 South, Range 27 East, Chaves County, New Mexico, as a tubingless gas well completion producing through perforations from 8182-8270' in 2 7/8 inch casing.
- CASE 2654: Application of Carper Drilling Company for the creation of a new gas pool and for temporary special rules and regulations, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool to be designated the Buffalo Valley-Pennsylvanian Gas Pool for its Baetz Well No. 1, located in the SE/4 SW/4 of Section 35, Township 14 South, Range 27 East, Chaves County, New Mexico. Applicant, further seeks the establishment of temporary special rules and regulations governing said pool, including provisions for 320-acre gas units.
- CASE 2655: Application of Martin Yates III and S. P. Yates for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order force pooling all mineral interests in the Lusk-Strawn Pool to form a 160-acre oil proration unit comprising the NE/4 of Section 30, Township 19 South, Range 32 East, Lea County, New Mexico, to be dedicated to a well to be drilled in the NE/4 NE/4 of said Section 30.
- CASE 2656: Application of Western Development Company for a secondary recovery project, East Millman Queen-Grayburg Field, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a secondary recovery project in the East Millman Queen-Grayburg Field, with the injection of water into the Queen and Grayburg formations initially to be through 16 wells, located in Sections 11, 14, 15, 22 and 23, Township 19 South, Range 28 East, Eddy County, New Mexico, said project to be governed by the provisions of Rule 701.

- CASE 2657: Application of Odessa Natural Gasoline Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks establishment of a 320-acre non-standard gas proration unit comprising the SE/4 of Section 23 and the NE/4 of Section 26, Township 25 South, Range 37 East, Justis Gas Pool, Lea County, New Mexico, to be dedicated to its Carlson "A" Well No. 1 located in Unit P of said Section 23.
- CASE 2658: Application of Cabot Corporation for temporary special rules and regulations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating temporary special rules and regulations for the North Bagley-Pennsylvanian Pool, Lea County, New Mexico, including provisions for 80-acre proration units.
- CASE 2659: Application of Cabot Corporation for the creation of a new oil pool and the establishment of temporary rules and regulations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool to be designated the North Bagley-Wolfcamp Pool for its Humble State Well No. 1, located in the NW/4 NW/4 of Section 23, Township 11 South, Range 33 East, Lea County, New Mexico. Applicant further seeks establishment of temporary rules and regulations governing said pool including provisions for 80-acre proration units.
- CASE 2660: Application of Midwest Oil Corporation for the creation of a new oil pool and for the establishment of temporary special rules and regulations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Pennsylvanian production in the vicinity of its LLE State Well No. 1, located in the NW/4 SW/4 of Section 14, Township 10 South, Range 33 East, Lea County, New Mexico. Applicant further seeks the promulgation of temporary special rules and regulations governing said pool to include provisions for 80-acre proration units and fixed well location requirements.
- CASE 2661: Application of Pan American Petroleum Corporation for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the triple completion (conventional) of its Southland Royalty "A" Well No. 2, located in Unit B of Section 9, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce

-3-

Docket No. 29-62

Examiner Hearing - Wednesday October 10, 1962

oil from the Drinkard and Blinebry formations and gas from the Tubb formation through parallel strings of tubing.

CASE 2662:

Application of Pan American Petroleum Corporation for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the triple completion (conventional) of its South Mattix Unit Well No. 14, located in Unit K of Section 15, Township 24 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce gas from the Fowler Paddock and an undesignated Tubb pool, and oil from an undesignated Blinebry pool through parallel strings of tubing.

CASE 2663:

Application of Arnold H. Bruner for permission to directionally drill, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to directionally drill his Federal Intex Well No. 1, the surface location of which is in the center of the NW/4 SE/4 of Section 8, Township 9 South, Range 37 East, Allison Pennsylvanian Pool (extension), Lea County, New Mexico. Target for said directionally drilled well would be 100 feet from the North and West lines of the NW/4 SE/4 of said Section 8.

CASE 2664:

Application of Southwest Production Company for a dual completion, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its Davis Federal Well No. 1, located in Unit L of Section 24, Township 26 North, Range 11 West, San Juan County, New Mexico, as a dual completion with production of oil from the Gallup zone and production of gas from the Dakota zone to be through parallel strings of 1 1/4-inch tubing.

iqg/

Case 2664

Reard 10-24-62

Rec. 10-25-62

1. Grant Southwest permission to use  $1\frac{1}{2}$ " tubing to the Gallup formation in their dual completion. The well is the SW-Davis Tract #1 1850/S-720/W sec. 24-268-11W. Gallup - Gallup oil pool and the Basin - Bk. Gas pool. This an exception to Rule 112-A. for the tubing requirements.

Approve Dual Completion.

The GOR of this well is 50,000:1 at present ~~therefore artificial~~ and is a flowing well. Artificial lift is not necessary for some time and good flow efficiency can be realized with the high ratio of the Gallup formation in this well.

Wm. A. W.

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

October 31, 1962

Mr. William J. Cooley  
Verity, Burr & Cooley  
Attorneys at Law  
152 Petroleum Center Building  
Farmington, New Mexico

Re: Case No. 2664

Order No. R-2354

Applicant:

Southwest Production Co.

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

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC       

Aztec OCC x

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. 2664  
Order No. R-2354

APPLICATION OF SOUTHWEST PRODUCTION  
COMPANY FOR A DUAL COMPLETION, SAN  
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on October 24, 1962, at Santa Fe, New Mexico, before Elvis A. Utz, 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 31st day of October, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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, Southwest Production Company, seeks authority to dually complete its Davis Federal Well No. 1, located in Unit L of Section 24, Township 26 North, Range 11 West, NMPM, San Juan County, New Mexico, to produce oil from the Gallegos-Gallup Oil Pool and gas from the Basin-Dakota Gas Pool through parallel strings of 1 1/2-inch tubing separated by a packer set at approximately 6172 feet.

(3) That the mechanics of the proposed dual 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, Southwest Production Company, is hereby authorized to complete its Davis Federal Well No. 1,

-2-

CASE No. 2664  
Order No. R-2354

located in Unit L of Section 24, Township 26 North, Range 11 West, MNPM, San Juan County, New Mexico, as a dual completion to produce oil from the Gallegos-Gallup Oil Pool and gas from the Basin-Dakota Gas Pool through parallel strings of 1 1/2-inch tubing separated by a packer set at approximately 6172 feet.

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 conduct packer-leakage tests upon completion and annually thereafter during the Annual Deliverability Test Period for the Dakota formation, and at such other times as the Secretary-Director of the Commission may prescribe.

(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. McChes*

EDWIN L. MCCHESM, 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 Southwest Production Company for a  
dual completion, San Juan County, New Mexico.  
Applicant, in the above-styled cause, seeks  
authority to complete its Davis Federal Well No.  
1, located in Unit L of Section 24, Township 26  
North, Range 11 West, San Juan County, New Mexico,  
as a dual completion with production of oil from  
the Gallup zone and production of gas from the  
Dakota zone to be through parallel strings of  
1 1/2-inch tubing.

CASE 2664

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 2664.

MR. DURRETT: Application of Southwest Production  
Company for a dual completion, San Juan County, New Mexico.

MR. COOLEY: William J. Cooley, law firm of Verity,  
Burr and Cooley, Farmington, New Mexico, appearing on behalf of  
the applicant. We have one witness, Mr. Leon Wiederkehr.

(Witness sworn.)

V. L. Wiederkehr

called as a witness, having been first duly sworn on oath, testi-  
fied as follows:

DIRECT EXAMINATION

BY MR. COOLEY:

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FAIRMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

Q Will the witness state his name, please?

A V. L. Wiederkehr.

Q Where do you reside, Mr. Wiederkehr?

A In Farmington.

Q By whom are you employed?

A By Southwest Production Company.

Q In what capacity?

A Assistant Superintendent.

Q Have you previously testified before the Oil Conservation of New Mexico as an expert witness?

A Yes, I have.

MR. COOLEY: Are the witness' qualifications acceptable?

MR. UTZ: Yes, sir.

Q (By Mr. Cooley) Are you familiar with the well which is the subject of the present application?

A Yes, I am.

Q What is the name of that well?

A The Davis Federal No. 1.

Q Where is it located?

A Section 24, 26 North, 11 West.

Q In what quarter section?

A It would be the Northwest of the Southwest.

Q Have you prepared a plat which reflects the location of this well and surrounding wells?

A Yes, I have.



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

Q I hand you what has been marked as Applicant's Exhibit No. 1 and ask you if this is the plat to which you refer?

A Yes, it is.

Q Would you briefly explain what is shown there?

A All the adjoining wells and adjoining leaseholders are shown on this plat, along with Dakota wells and dual Dakota-Gallup wells.

Q With respect to this plat, where is the subject well located?

A It's in the center of the plat, Section 24. It's identified as a dual, as the Davis No. 1.

Q What two pools do you propose to dually complete this well in?

A The Basin-Dakota and Gallegos-Gallup.

Q Is the Basin-Dakota a gas pool?

A Yes.

Q And the Gallegos-Gallup an oil pool?

A Generally considered an oil pool; although some wells are classed as gas wells, they are high ratio.

Q What are the producing characteristics of the two zones encountered in the subject well?

A Normal Dakota, the Gallup is probably more fractured shale than sand. Each zone requires stimulation by fracture



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

treatment.

Q Have you run a test on the Gallup zone which would indicate its producing ability?

A We have run some tests against approximately 400-pound back pressure to approach a line pressure that we might expect to produce gas into. We have not recovered the frac oil from the Gallup zone. The well is making a little over four barrels per day with about 200 MCF gas per day against 400-pound back pressure.

MR. UTZ: 200 MCF gas?

A Four barrels of gas. We have not recovered the load oil.

Q (By Mr. Cooley) Would you consider the Gallup zone in this well a marginal completion from an economic standpoint?

A Very marginal.

Q Have you prepared a diagrammatic sketch which reveals the manner in which you propose to dually complete the subject well?

A I have.

(Whereupon, Applicant's Exhibit No. 2 marked for identification.)

Q I hand you what has been marked as Exhibit No. 2 and ask you to explain this exhibit.

A It's a diagrammatic sketch of this proposed dual completion, showing the Dakota perforation, the Baker Model "D" Packer, the Gallup perforation and the two tubing strings.

Q What size casing do you have in this hole?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

A 5-1/2, 15-1/2 pound casing.

Q What size tubing do you propose to use?

A 1-1/2 non-upset in both strings.

Q With respect to the Gallup zone, what effect if any do you believe that the smaller than authorized size of tubing will have upon the producing efficiency of this zone?

A Considering the low productivity of the well, I think with the smaller tubing that liquids would be carried out better, produced better through the smaller tubing than they would through larger tubing.

Q Do you anticipate any paraffine problem in this zone?

A We do not anticipate paraffine problems.

Q Are you equipped to cope with it if you do have it?

A If we do encounter paraffine problems, we would propose to change to a larger tubing size. It would not be necessary to disturb the Dakota tubing string. We could merely kill the Gallup with oil, pull the inch and a half and run a larger tubing string, 2-1/16 inch tubing string.

Q Has this well actually been dually completed in the fashion shown on this exhibit?

A It has been completed up to the point of potential test, packer leakage tests have been run.

Q What do they reveal?

A They show that the packer was holding and the zones are isolated. I might add that these tests have not been filed with



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

the Commission. They were just recently completed and probably have not been filed at this time.

Q In your opinion, could the approval of this application in any way result in waste?

A No. I certainly think it should not.

Q How is this hole cemented?

A An 8-3/4 hole was drilled to 5165, which is some, oh, 30 feet above the top of the Gallup. The hole was then reduced to 7-7/8ths, drilled to 7-7/8th to T.D. of 6339. It was cemented with 225 sacks of cement, giving a calculated slurry of some 412 cubic feet. The calculated fill-up from hole size would have required only some 216 cubic feet to fill all this 7-7/8ths hole, so we actually have about twice as much volume of cement as would have been required to have filled to the top of the Gallup.

Q In completing this well, did you have any indications that there was an adequate cement behind the pipe and across the Gallup zone?

A During the cementing operations, we rotate the pipe until the plug is down. We had good circulation throughout the cement job, and then during the completion job, during the frac job on the Gallup zone, as with all, sealers were dropped. At one time we dropped ten balls and had 500-pound pressure increase which would certainly indicate the perforations were sealed by a good cement job. The 10-ball sealers going into 50 holes would not have increased the pressure like that if we did not have the



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

holes isolated by cement.

Q Do you have anything further you wish to present in this case?

A No.

MR. COOLEY: That completes the applicant's case.

MR. UTZ: Do you want to enter your exhibits?

MR. COOLEY: Yes. At this time we would like to formally introduce Applicant's Exhibits 1 and 2.

MR. UTZ: Without objection, the Applicant's Exhibits will be entered into this case.

(Whereupon, Applicant's Exhibits Nos. 1 and 2 admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q You mentioned 5165 with what size hole?

A 8-3/4ths down to 5165. Then 7-7/8ths to T.D. of 6339. Now the top of the Gallup is 5195, so the Gallup, all of the Gallup then was drilled with this 7-7/8ths hole.

Q How many sacks of cement did you use?

A 225.

Q What was your calculated top?

A Rather than calculate the top, I calculate the amount of cement required to get to some particular depth, to cover some particular zone, and had an excess then to take care of washout, but to cover from bottom to the top of this 7-7/8ths hole, assuming an



8-inch hole size, it would have required only 216 cubic feet of slurry. We ran some 412 cubic feet of slurry, which is almost twice as much as would be required to fill that hole if it were bit size. . We allowed this extra volume for washout and possible lost circulation during cement operations, which didn't occur.

Q In your opinion, is the cement as much as 100 feet above the Gallup zone?

A Very definitely. Calculating fill-up, assuming bit size all the way, the cement would have been, oh, I figured it back up around 4500 feet, roughly. I don't recall exactly where it was but we have almost twice as much cement as would be required if we assumed that the hole stayed at bit size. We have allowed then 190 some cubic feet excess.

Q So from the top of this cement at some point above the Gallup zone to the surface, there is no cement behind the pipe?

A That is correct.

Q What producing zones do you have in this area?

A The Gallup and the Dakota.

Q There's nothing from the top of the Gallup to the surface?

A That is correct. The Pictured Cliff-North Mesaverde is productive in this area, and stage cementing is not required by the Commission.

Q This is kind of a fringe area for Pictured Cliffs?





DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 813-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

A It's beyond the limits of the Pictured Cliff production.

Q Now the surface casing was 10-3/4. Was that 150 sacks sufficient to circulate?

A Yes, sir, 150 sacks of cement circulates; we circulated cement on all the wells with surface set at around 200 feet.

Q Mr. Wiederkehr, what is the setting depth of your inch and a half tubing in the Gallup string?

A It is shown on the sketch set at 5461, which is in the Gallup perforations.

Q What's the difference in cost between 2-1/16ths and 1-1/2 inch tubing?

A I'm sorry, I'm not prepared to say the difference in the cost. The reason for running this inch and a half was, of course, economic reasons. I can't say what the dollar difference would have been.

Q Don't you have any idea what tubing costs per foot?

A I would guess that an inch and a half would probably cost two-thirds of what the 2-1/16th would cost, or less.

Q Actually, you are not sure whether this well is even going to produce from the Gallup yet or not?

A Well, we have tested it through a separator. We have not recovered all of our load oil. It is producing against a 400 pound back pressure, which is what we would expect to produce it against. It's not connected to lines yet.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

Q Four barrels of oil a day and 200 MCF of gas would be a GOR of 50,000 to 1, is that correct?

A Well, I didn't calculate the GOR, but I didn't think it was that high.

Q The production figure you gave was four barrels of oil per day?

A Yes.

Q 200 MCF of gas. That would be 200,000. 4 into 200,000 is 50.

A That is our production test on the well. I hadn't checked the GOR. By not having recovered our frac oil, we are not calling this a potential test. At the present time, the well is shut in waiting on pipeline connections rather than continue to produce it and waste the gas.

Q Do GOR's have a tendency to go higher in this area, or lower?

A Higher. Most of the wells in the area produce about four barrels of oil per day. We expect that it's probably stable at this point and we'll find no appreciable decrease when we have finally recovered our frac oil.

Q In your opinion, will it sometime in the future be necessary to use artificial lift on this well in the Gallup zone?

A I think not, from the volume of liquids we're producing I think that we should not anticipate artificial lift. It may occur at some time, but presently it wouldn't appear that an



artificial lift would be necessary.

Q If it were necessary, could you use artificial lift through inch and a half?

A No, we wouldn't propose artificial lift through an inch and a half. We would propose to go through the 2-1/16th.

Q Kill the well with oil?

A Kill the well with oil, yes, sir, the well may be killed with oil. I loaded the hole with oil and killed it before I ran my Gallup string, so I know it can be killed with oil.

MR. UTZ: Are there any other questions of the witness?  
The witness may be excused.

(Witness excused.)

MR. UTZ: Any other statements in this case? We will take the case under advisement.

\* \* \* \* \*

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691



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 19th 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 Examiner hearing of Case No. 2664, heard by me on 10-24, 1962.  
*Shirley G. J. H.* Examiner  
New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.  
FARMINGTON, N. M. PHONE 325-1182  
SANTA FE, N. M. PHONE 983-3971  
ALBUQUERQUE, N. M. PHONE 243-6691



BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
October 11, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Southwest Production Company for  
a dual completion, San Juan County, New Mexico.  
Applicant, in the above-styled cause, seeks  
authority to complete its Davis Federal Well  
No. 1, located in Unit L of Section 24, Town-  
ship 26 North, Range 11 West, San Juan County,  
New Mexico, as a dual completion with produc-  
tion of oil from the Gallup zone and production  
of gas from the Dakota zone to be through  
parallel strings of 1 1/2-inch tubing.

CASE 2664

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We call 2664.

MR. DURRETT: Application of Southwest Production  
Company for a dual completion, San Juan County, New Mexico.

MR. NUTTER: Is there anyone here from Southwest  
Production Company? The case will be continued to October 24.

The hearing is adjourned.

(Whereupon, the hearing was adjourned.)

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

ALBUQUERQUE, N. M.  
PHONE 243-6691



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 proceedings was reported by me in stenotype and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

WITNESS my Hand and Notarial Seal this 12th day of October, 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 Examiner hearing of Case No. 7664 heard by me on Oct 11, 1962.  
*[Signature]*, Examiner  
New Mexico Oil Conservation Commission

ALBUQUERQUE, N. M.  
PHONE 243-6691

FARMINGTON, N. M.  
PHONE 325-1182



DRAFT

JMD/esr  
October 26, 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. 2664

Order No. R- 2354

APPLICATION OF SOUTHWEST PRODUCTION  
COMPANY FOR A DUAL COMPLETION, SAN  
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on  
October 24, 1962, at Santa Fe, New Mexico, before Elvis A. Utz  
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 October, 1962, the Commission,  
a quorum being present, having considered the application, the  
evidence adduced, and the recommendations of the Examiner,  
Elvis A. Utz, 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, Southwest Production Company, seeks  
authority to dually complete its Davis Federal Well No. 1, located  
in Unit L of Section 24, Township 26 North, Range 11 West, NMPM,  
San Juan County, New Mexico, to produce oil from the Gallegos-  
Gallup Oil Pool and gas from the Basin-Dakota Gas Pool through  
parallel strings of 1 1/2-inch tubing *separated by a packer set at  
approximately 6172 feet.*

(3) That the mechanics of the proposed dual 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, Southwest Production Company is hereby authorized to complete its Davis Federal Well No. 1, located in Unit L of Section 24, Township 26 North, Range 11 West, NMPM, San Juan County, New Mexico, as a dual completion to produce oil from the Gallegos-Gallup Oil Pool and gas from the Basin-Dakota Gas Pool through parallel strings of 1 1/2-inch tubing *separated by a packer set at approximately 6172 feet.*

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 <sup>conduct</sup> ~~take~~ packer-leakage tests upon completion and annually thereafter during the Annual ~~Ratio-Test-Period~~ Deliverability Test Period for the Dakota formation, and at such other times as the Secretary-Director of the Commission may prescribe.

(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.