

CASE 3865: Appli. of SOUTHERN
UNION PRODUCTION CO. FOR AN
UNORTHODOX LOCATION AND A DUAL.

Case Number

3865

Application
Transcripts.

Small Exhibits

ETC.

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. 3865
Order No. R-3510

APPLICATION OF SOUTHERN UNION PRODUCTION
COMPANY FOR AN UNORTHODOX LOCATION AND A
DUAL COMPLETION, RIO ARriba COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 25, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 2nd day of October, 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, Southern Union Production Company, seeks an exception to Rule 2 of the Special Rules and Regulations governing the Blanco-Mesaverde Gas Pool as promulgated by Order No. R-1670, as amended, to complete its Jicarilla "A" Well No. 9 at an unorthodox location 790 feet from the North line and 1670 feet from the West line of Section 14, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant also seeks authority to complete the subject well as a dual completion (conventional) to produce gas from the Blanco-Mesaverde Gas Pool and the Basin-Dakota Gas Pool through parallel strings of 1 1/2-inch tubing, with separation of zones by a packer set at approximately 7660 feet.

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CASE No. 3865

Order No. R-3510

(4) That the subject well was originally projected and drilled as a Pictured Cliffs-Dakota gas well at a standard location for said formations and is off-pattern with respect to the Special Rules and Regulations governing the Blanco-Mesaverde Gas Pool.

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

(6) That approval of the subject application will prevent the drilling of unnecessary wells, will avoid the augmentation of risk arising from the drilling of an excessive number of wells, will prevent reduced recovery which might result from the drilling of too few wells, will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pools, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Southern Union Production Company, is hereby granted an exception to the well location requirements of Rule 2 of the Special Rules and Regulations governing the Blanco-Mesaverde Gas Pool as promulgated by Order No. R-1670, as amended, and is hereby authorized to complete its Jicarilla "A" Well No. 9 at an unorthodox location 790 feet from the North line and 1670 feet from the West line of Section 14, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.

(2) That the applicant is hereby authorized to complete the subject well as a dual completion (conventional) to produce gas from the Blanco-Mesaverde Gas Pool and the Basin-Dakota Gas Pool through parallel strings of 1 1/2-inch tubing, with separation of zones by a packer set at approximately 7660 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 take packer-leakage tests upon completion and annually thereafter during the Deliverability Test Period for the Basin-Dakota Gas Pool.

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CASE No. 3865

Order No. R-3510

(3) 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 E. Cargo
DAVID E. CARGO, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

esr/

State of New Mexico
Oil Conservation Commission



October 2, 1968

Southern Union Production Co.

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

Hobbs OCC x
Artesia OCC
Aztec OCC x
Other

- CASE 3865: Application of Southern Union Production Company for an unorthodox location and a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Jicarilla "A" Well No. 9 to produce gas from the Blanco-Mesaverde and Basin Dakota Pools at an unorthodox location for the Blanco-Mesaverde Pool 790 feet from the North line and 1670 feet from the West line of Section 14, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.
- CASE 3866: Application of Shell Oil Company 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 formation in the perforated interval from approximately 3360 feet to 3512 feet in its Thelma Crosby "F" Well No. 1 located in Unit H of Section 17, Township 9 South, Range 30 East, Cato-San Andres Pool area, Chaves County, New Mexico.
- CASE 3867: Application of Tenreco Oil Company for a unit agreement, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Hospah Unit Area comprising 476 acres, more or less, of federal lands in Section 12, Township 17 North, Range 9 West, South Hospah Upper Sand Oil Pool, McKinley County, New Mexico.
- CASE 3868: Application of Texaco, Inc., for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks expansion of the Texaco BV Waterflood Project, Lazy J-Pennsylvanian Pool, by the conversion to water injection of its "BV" State (NCT-1) Well No. 5 located in Unit M of Section 26, Township 13 South, Range 33 East, Lea County, New Mexico.
- CASE 3869: Application of Texaco, Inc., for a down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle the marginal production from the Blinebry and Paddock Oil Pools in the wellbore of its C. H. Lockhart Federal NCT-1 Well No. 3 located in Unit O of Section 18, Township 22 South, Range 38 East, Lea County, New Mexico.

OIL CONSERVATION COMMISSION
1000 Rio Brazos Rd.
Aztec, New Mexico

OIL CONSERVATION COMMISSION
BOX 871
SANTA FE, NEW MEXICO

DATE 9-3-68

RE: Proposed NSP _____

Proposed NSL _____

Proposed NFO _____

Proposed DC ✓

Gentlemen:

I have examined the application dated Southern # 8-5-68
for the Southern Union Prod. Co. Jicocilla A #9 C-14-26N-4N
Operator Lease and Well No. S-T-R

and my recommendations are as follows:

Approved

Yours very truly,

Conny Elmer
OIL CONSERVATION COMMISSION

03 SEP 5 AM

One 3865

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

Operator SOUTHERN UNION PRODUCTION COMPANY		County RIO ARIDA	Date 8/5/68
Address P. O. Box 808, FARMINGTON, NEW MEXICO 87401		Lease JICARILLA "A"	Well No. 9
Location of Well C	Unit 14	Township 26 NORTH	Range 12 WEST

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 _____ NO **XX**

2. If answer is yes, identify one such instance: Order No. _____; Operator Lease, and Well No. _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	BLANCO MESAVERTS		BASIN PAKOTA
b. Top and Bottom of Pay Section (Perforations)	5744 - 5826		7780 - 7780
c. Type of production (Oil or Gas)	GAS		GAS
d. Method of Production (Flowing or Artificial Lift)	FLOWING		FLOWING

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

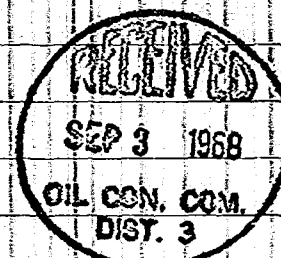
- | | | |
|-------------------------------------|--------------------------|--|
| Yes | No | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or 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. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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.* |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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.

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 509

DENVER, COLORADO 80203



6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES **XX** NO ____ If answer is yes, give date of such notification **8/7/68**

CERTIFICATE: I, the undersigned, state that I am the **Drilling Superintendent** of the **SOUTHERN UNION 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.

Original signed by
GILBERT D. NOLAND, JR.

GILBERT D. NOLAND, JR. 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 one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

SOUTHERN UNION PRODUCTION COMPANY

POST OFFICE BOX 808
FARMINGTON, NEW MEXICO 87401

August 30, 1968

*not
set for hearing*

Case 3865

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

Attention: Mr. A. L. Porter

Dear Sir:

Enclosed are three (3) copies each of the following forms to cover Southern Union Production Company's Jicarilla "A" No. 9 well located 700 feet from the North line and 1670 feet from the West line of Section 14, Township 26 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico:

1. Application for Multiple Completion - Form C-107
2. Offset Operator's Plat
3. Schematic Diagram of Well Completion

Also enclosed is one (1) copy each of the electrical log and Packer-Setting Affidavit.

Mesaverde is unorthodox as to location and a hearing will be necessary.

Yours very truly,

SOUTHERN UNION PRODUCTION COMPANY

B. R. Vanderslice

B. R. Vanderslice
Area Superintendent

ERV:ml
Enclosures

cc: Benny E. Bechtol - Exploration
New Mexico Oil Conservation Commission
1000 Rio Brazos Road, Aztec, N. M. 87410
Aztec Oil & Gas Company
P. O. Drawer 570, Farmington, N. M. 87401
Aztec Oil & Gas Company
2000 First National Bank Bldg., Dallas, Texas 75202

SEP 3 AM 8 21

DOCKET MAILED

Date 9-13-68

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

Case 2865

Operator SOUTHERN UNION PRODUCTION COMPANY		County RIO ARriba	Date 8/5/68
Address P. O. Box 808, FARMINGTON, NEW MEXICO 87401		Lease JICARILLA #A11	Well No. 9
Location of Well C	Unit 14	Township 26 NORTH	Range 4 WEST

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 _____ NO **XX**
2. If answer is yes, identify one such instance: Order No. _____; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	BLANCO MESAVERDE		BASIN DAKOTA
b. Top and Bottom of Pay Section (Perforations)	5744 - 5826		7780 - 7980
c. Type of production (Oil or Gas)	GAS		GAS
d. Method of Production (Flowing or Artificial Lift)	FLOWING		FLOWING

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

- | | | |
|---|------------------------------------|---|
| <input checked="" type="checkbox"/> XX | <input type="checkbox"/> No | 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. |
| <input checked="" type="checkbox"/> XX | <input type="checkbox"/> No | 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. |
| <input checked="" type="checkbox"/> XX | <input type="checkbox"/> No | 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. |
| <input checked="" type="checkbox"/> XX | <input type="checkbox"/> No | 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 112A.) |

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

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 509

DENVER, COLORADO 80203

SEP 3 AM 8 21

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES **XX** NO _____. If answer is yes, give date of such notification **8/7/68**.

CERTIFICATE: I, the undersigned, state that I am the **DRILLING SUPERINTENDENT** of the **SOUTHERN UNION 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.

Gilbert D. Noland Jr.
GILBERT D. NOLAND, JR., 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 one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

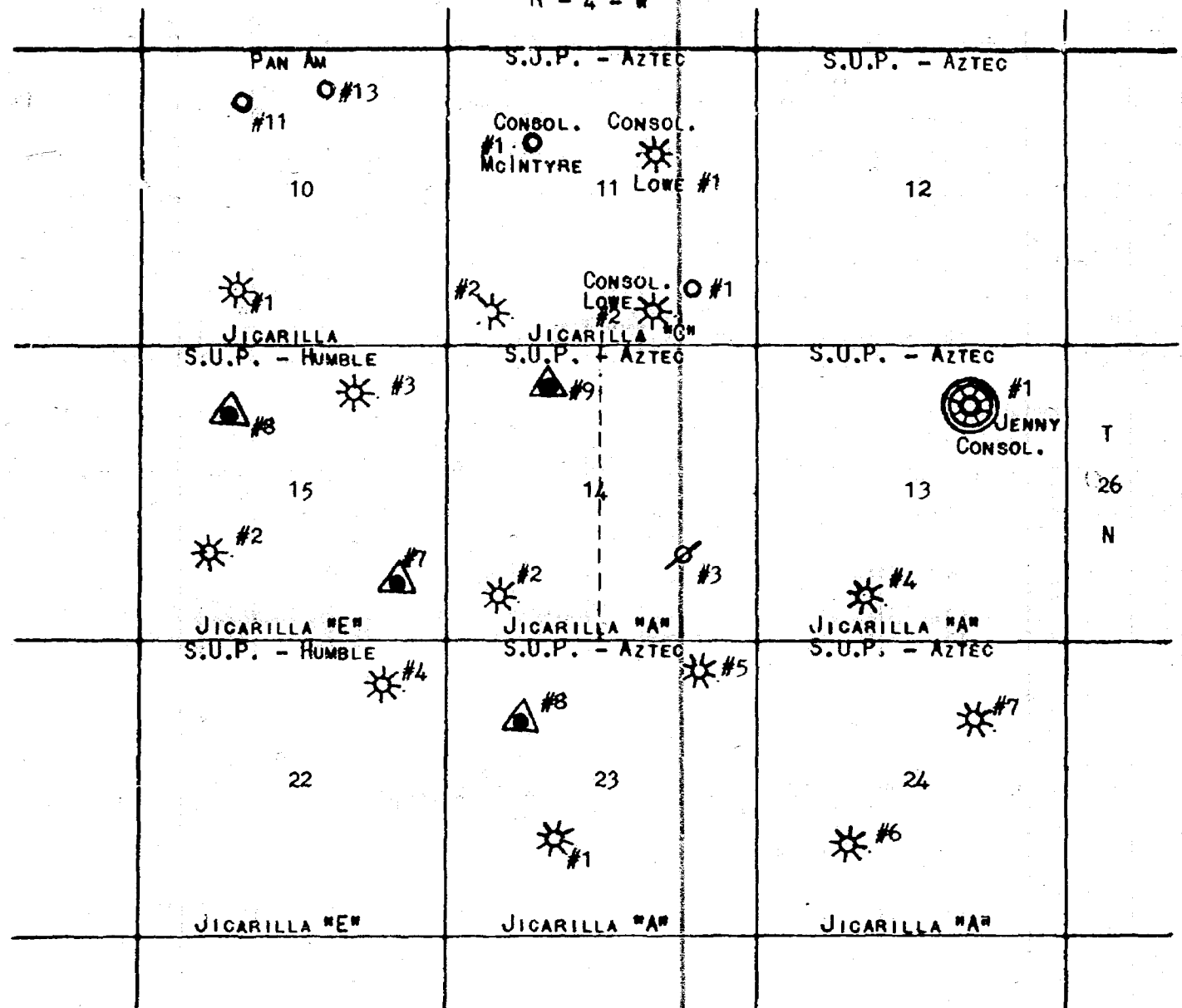
OFFSET OPERATOR'S PLAT
TO
SOUTHERN UNION PRODUCTION COMPANY'S

WELL: JICARILLA "A" No. 9

LOCATION: 790 FT. FROM NORTH LINE & 1670 FT. FROM WEST LINE
SECTION 14, TOWNSHIP 26 NORTH, RANGE 4 WEST, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO

*Card
3865*

R - 4 - W



- PROPOSED DAKOTA-MESAVERDE DUAL COMPLETION
- DAKOTA-GALLUP DUAL
- DAKOTA
- PICTURED CLIFFS
- PLUGGED PICTURED CLIFFS
- DAKOTA-MESAVERDE DUAL

SURFACE HOLE SIZE - 13-3/4"
 INTERMEDIATE HOLE SIZE - 9-7/8"
 PRODUCTION HOLE SIZE - 6-3/4"

SOUTHERN UNION PRODUCTION COMPANY
 JICARILLA "A" NO. 9
 790 FT. FROM NORTH LINE & 1670 FT. FROM
 WEST LINE OF SECTION 14, TOWNSHIP 26 NORTH
 RANGE 4 WEST, N.M.P.M., RIO ARriba COUNTY
 NEW MEXICO.

BASIN DAKOTA - BLANCO MESAVERDE
 DUAL COMPLETION

SURFACE CASING: 10-3/4", 40.50#, H-40,
 SET AT 314 FT. R.K.B. CEMENTED TO
 SURFACE W/400 SACKS CEMENT.

TOP CEMENT ON 7-5/8" CASING AT 2500 FT.
 R.K.B.

TOP LINER 5-1/2", 15.50#, J-55 CSG. AT
 3705 FT. R.K.B.

TOP CEMENT ON 5-1/2" LINER AT 3705 FT.
 R.K.B.

INTERMEDIATE CASING: 7-5/8", 26.40#, J-55
 SET AT 3834 FT. R.K.B. CEMENTED W/350
 CU. FT. CEMENT.

1-1/2" INTEGRAL JOINT, 2.75#, JCW TBG.
 SET TO MESAVERDE. LANDED AT 5800 FT. R.K.B.
 2-1/16" O.D. BAKER BLAST JOINTS RUN ACROSS
 MESAVERDE PERFORATIONS. TOP AT 5735 FT.
 BOTTOM AT 5835 FT. R.K.B.

1-1/2", E.U.E., 2.90#, JCW TBG. SET TO
 DAKOTA, LANDED AT 7899 FT. R.K.B.

BAKER 5-1/2" MODEL "D" PRODUCTION PACKER
 SET AT 7660 FT. R.K.B.

BOTTOM 5-1/2", 15.50#, J-55 LINER AT 8034
 FT. R.K.B. CEMENTED TO TOP OF LINER W/600
 CU. FT. CEMENT.

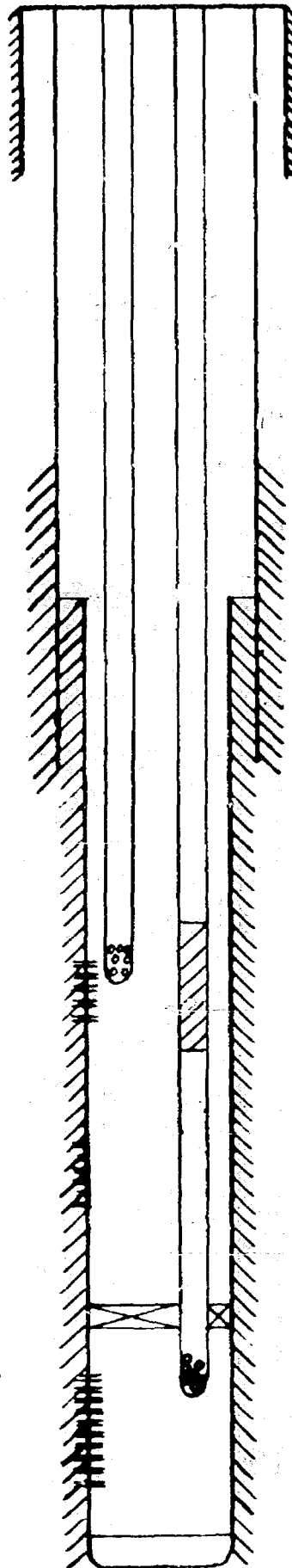
P.B.T.D. 8020 FT. R.K.B.
 TOTAL DEPTH 8035 FT. R.K.B.

Case 3865

LARKIN FIG. 905, 7-5/8" CASING
 CENTRALIZERS RUN ON 30 FT.
 SPACING ON 7-5/8" CASING FROM
 3534 FT. TO 3834 FT. R.K.B.

MESAVERDE PERFORATIONS 5744 FT.
 TO 5826 FT. R.K.B.

DAKOTA PERFORATIONS 7780 FT. TO
 7980 FT. R.K.B.



BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION OF SOUTHERN UNION
PRODUCTION COMPANY FOR APPROVAL
OF AN UNORTHODOX LOCATION,
BLANCO-MESA VERDE GAS POOL,
RIO ARriba COUNTY, NEW MEXICO.

Case No. 3865

APPLICATION

Comes now Southern Union Production Company, by its attorneys, and applies to the New Mexico Oil Conservation Commission for approval of an unorthodox location in the Blanco-Mesa Verde Gas Pool, Rio Arriba County, New Mexico, and in support of its application states:

1. Southern Union Production Company is the operator of the Jicarilla "A" well No. 9, located 790 feet from the north line and 1670 feet from the west line of Section 14, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.
2. The said Jicarilla "A" well No. 9, originally was projected to the Dakota formation and has been completed in the Dakota formation. The location of the said well is orthodox for the Basin-Dakota gas pool.
3. During the drilling and completion of the subject well, the Mesa Verde formation was tested and found to be productive, and the subject well also has been completed in the Mesa Verde formation.
4. The location of the subject well is unorthodox under the rules and regulations governing the location of wells in the Blanco-Mesa Verde gas pool in that the well is located in the northwest quarter of the section rather than in the southwest quarter or the northeast quarter of the section, as required by the rules for the said pool.
5. Approval of the subject application will enable the

applicant to recover gas from the Blanco-Mesa Verde gas pool that otherwise probably would not be recovered and will otherwise prevent waste. The correlative rights of all said operators will not be adversely affected by the granting of this application.

WHEREFORE, Southern Union Production Company requests that this application be set for hearing before the Commission or one of its examiners, and that the Commission enter its order approving this application.

MONTGOMERY, FEDERICI, ANDREWS,
HANNAHS & MORRIS

By Richard S. Morris
P.O. Box 2307
Santa Fe, New Mexico 87501

Attorneys for Southern Union
Production Company.

MR. NUTTER: The hearing will come to order, please.
The next case will be 3865.

MR. HATCH: Case 3865, application of Southern Union
Production Company for an unorthodox location and a dual
completion, Rio Arriba County, New Mexico.

MR. MORRIS: Mr. Examiner, I am Dick Morris of
Montgomery, Federici, Andrews, Hannahs and Morris, of Santa Fe,
appearing for the applicant, Southern Union Production Company.
We will have one witness, Mr. Benny Bechtol. I ask that he
stand and be sworn at this time, please.

(Witness sworn.)

(Whereupon, Applicant's Exhibits
Numbers 1 and 2 were marked for
identification.)

BENNY E. BECHTOL

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

DIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Bechtol, will you please state your name, where
you reside, by whom you are employed and in what capacity?

A Benny Bechtol, Dallas, Texas. I am employed as
manager of drilling and production for Southern Union
Production Company.

Q Would you please state briefly to the Examiner your

education and your experience in the petroleum industry?

A I graduated from Texas Tech with a B.S. Degree in Petroleum Engineering in 1959. I went to work for Shamrock Oil and Gas as a production engineer. Worked for them for seven years. At the time I left them, I was district engineer in Vernal, Utah. Went to work for this company in 1955 as district engineer.

MR. NUTTER: Sixty-five.

THE WITNESS: Sixty-five. Did I say '55?

MR. NUTTER: Yes, sir.

THE WITNESS: Sixty-five, as a production engineer or district engineer and was transferred to Dallas in the capacity that I now serve in 1966.

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

MR. NUTTER: Yes, they are.

Q Mr. Bechtol, are you familiar with the application of Southern Union Production Company in this case?

A Yes.

Q And have you prepared or has there been prepared under your supervision some exhibits in support of this application?

A Yes.

Q I'll ask you to refer to what has been marked as Exhibit Number 1 in this case. Please point out the location of the subject well and state its footage location in the section.

A Let's see. It's in Section 14. It's 790 from the north, 670 from the west, Section 14, 26 North, Range 4 West.

Q Now, this is an off-pattern location under the rules for the Blanco-Mesaverde Pool, is that right?

A That's correct.

Q Will you point out the legend that is shown on this exhibit with respect to the other wells that are in this area?

A This well is so marked by a square, whereas the other producing Mesaverde wells are encircled.

Q And they're shown in red on the exhibit, are they not?

A Yes, on the exhibit. They're shown in red.

Q To what formation or formations was this well originally projected?

A Originally, the Pictured Cliffs-Dakota.

Q How has the well been drilled and completed?

A The well was drilled with mud to 3850 at which time we set seven and five-eighths inch casing and then we gas-drilled the well down to a TD of 8,035 feet. Upon logging

the well, we noticed the Mesaverde Formation had good porosity and we talked to the Commission by phone, informed them we'd like to try a Mesaverde completion here. They informed us that we should have no problem in obtaining an unorthodox location; but, however, we would have to do this on our own, of course, and at our own risk, which we did.

Q And how is the well presently completed?

A Let's see. I believe, if you'll refer to page three on Exhibit 2, we have the --

Q That's the diagrammatic sketch?

A Yes, that's the diagrammatic sketch. The conventional dual-type completion --

Q I believe that's page four of Exhibit 2.

A Page four?

Q Yes, page four.

A We have the conventional-type dual completion with two strings of tubing with production packer, permanent production packer, isolating the two zones.

Q In a little more detail, point out your casing program and your down-hole equipment in this well.

A All right. The surface pipe was 13 and three-quarter inch. It should be approximately 300 feet or -- let me see a minute.

MR. NUTTER: I believe I saw it on your exhibit on the right-hand side there, Mr. Bechtol.

THE WITNESS: Is it?

MR. NUTTER: Surface casing at ten and three-quarters at 314?

THE WITNESS: Yes. Surface casing, ten and three-quarters, 314 feet, cemented with 400 sacks. And then we had the seven and five-eighths inch intermediate strings set at 3534 and cemented with 350 cubic feet. We ran a liner from 3705 to 3,034 feet and cemented it from top to bottom with 600 cubic feet of cement. Do you want me to go into the perforations again?

Q Yes.

A Then we perforated and completed the Dakota zone from 7780 to 7980, set a Model D production packer, then perforated the Mesaverde Section from 5744 to 5826, then ran both strings of tubing.

Q What is the pressure in each of these zones?

A The Mesaverde zone is 1140, roughly. The Dakota zone, around 2200 in this well.

Q Is there anything at all unusual about the dual completion of this well compared to the normal Mesaverde-Dakota completion in the basin?

A No.

Q Has a log on this well previously been furnished to the Commission?

A Yes.

Q What acreage do you propose to dedicate to this well both in the Dakota and in the Mesaverde formations?

A It would be the west half of Section 14.

Q One thing I neglected to ask you to point out, Mr. Bechtol, with respect to your Exhibit Number 1, are there off-pattern Mesaverde locations in the immediate area of your well?

A Yes. In Section 11, Southern Union Aztec farmout to consolidate oil and gas has two unorthodox locations there. I don't have the exact footage. I believe they're marked here on the exhibit.

Q Yes. In your opinion, Mr. Bechtol, will approval of this application in any way cause waste or impair correlative rights?

A No.

MR. MORRIS: At this time, Mr. Examiner, we'd offer into evidence Applicant's Exhibits 1 and 2.

MR. NUTTER: Two is the packet, the number of pages, is that correct?

MR. MORRIS: That's correct.

MR. NUTTER: Southern Union Production's Exhibits
Numbers 1 and 2 will be admitted in evidence.

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

MR. MORRIS: That's all I have of this witness at
this time.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Bachtol, as I gathered from this Exhibit Number 1,
this would be on the approximate southern boundary of the
productive limits of the Blanco-Mesaverde pool?

A Yes, that's correct. Yes, sir.

Q And, in effect, what has happened there in Section 11,
the normal pattern for the Mesaverde has been reversed?

A That's right.

Q And you are continuing a reversal of this pattern
right on into the edge of the pool, is that correct?

A Yes, sir, that's correct.

Q Now, the well was projected as a Pictured Cliffs --

A Pictured Cliffs.

Q -- Dakota dual completion?

A Yes.

Q And it would have been on pattern for either of those pools?

A That's correct.

Q No completion was made on the Pictured Cliffs?

A Not as yet, no. We don't plan --

Q What is the potential of the well in the two zones? Have you tested it?

A Four million in the Mesaverde and seven or eight in the Dakota. The Dakota was seven million.

Q So you've got a pretty good well in both zones, then, is that correct?

A Yes, sir.

MR. NUTTER: Are there any other questions of the witness? He may be excused. Do you have anything further, Mr. Morris?

MR. MORRIS: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in case Number 3865? We'll take the case under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
BENNY E. BECHTOL	
Direct Examination by Mr. Morris	2
Cross Examination by Mr. Nutter	8

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's Exhibits Numbers 1 and 2	2	8

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I CHARLOTTE MACIAS, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Charlotte Macias
 Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3865- heard by me on 9/25, 1968.
[Signature]
 Examiner
 New Mexico Oil Conservation Commission

August 30, 1968

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

Attention: M. A. L. Porter

Dear Sir:

Enclosed are three (3) copies each of the following forms to cover Southern Union Production Company's Jicarilla "A" No. 9 well located 790 feet from the North line and 1670 feet from the West line of Section 14, Township 26 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico:

1. Application for Multiple Completion - Form C-107
2. Offset Operator's Plat
3. Schematic Diagram of Well Completion

Also enclosed is one (1) copy each of the electrical log and Packer-Setting Affidavit.

Mesa Verde is unorthodox as to location and a hearing will be necessary.

Yours very truly,

SOUTHERN UNION PRODUCTION COMPANY

B. R. Vanderstine
Area Superintendent

B:Vml
Enclosures

cc: Barry E. Bechtel - Exploration
New Mexico Oil Conservation Commission
1400 Rio Brazos Road, A.tec, N. M. 87410
Aztec Oil & Gas Company
P. O. Drawer 570, Farmington, N. M. 87401
Aztec Oil & Gas Company
2000 First National Bank Bldg., Dallas, Texas 75202

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
APPL	EXHIBIT NO. 2
CASE NO.	3865

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

Operator SOUTHERN UNION PRODUCTION COMPANY		County RIO ARriba	Date 8/5/68
Address P. O. Box 808, Farmington, New Mexico 87401		Lease JICARILLA "A"	Well No. 9
Location of Well C	Section 14	Township 26 NORTH	Range 4 WEST

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 _____ NO **XX** _____
2. If answer is yes, identify one such instance: Order No. _____ ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	BLANCO MESAVERDE		BASIN DAKOTA
b. Top and Bottom of Pay Section (Perforations)	5744 - 5826		7780 - 7980
c. Type of production (Oil or Gas)	GAS		GAS
d. Method of Production (Flowing or Artificial Lift)	FLOWING		FLOWING

4. The following are attached. (Please check YES or NO)
- | | | |
|-------------------------------------|--------------------------|---|
| Yes | No | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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.* |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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.

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 509

DENVER, COLORADO 80203

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES **XX** NO _____. If answer is yes, give date of such notification **8/7/68**.

CERTIFICATE: I, the undersigned, state that I am the **DRILLING SUPERINTENDENT** of the **SOUTHERN UNION 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.

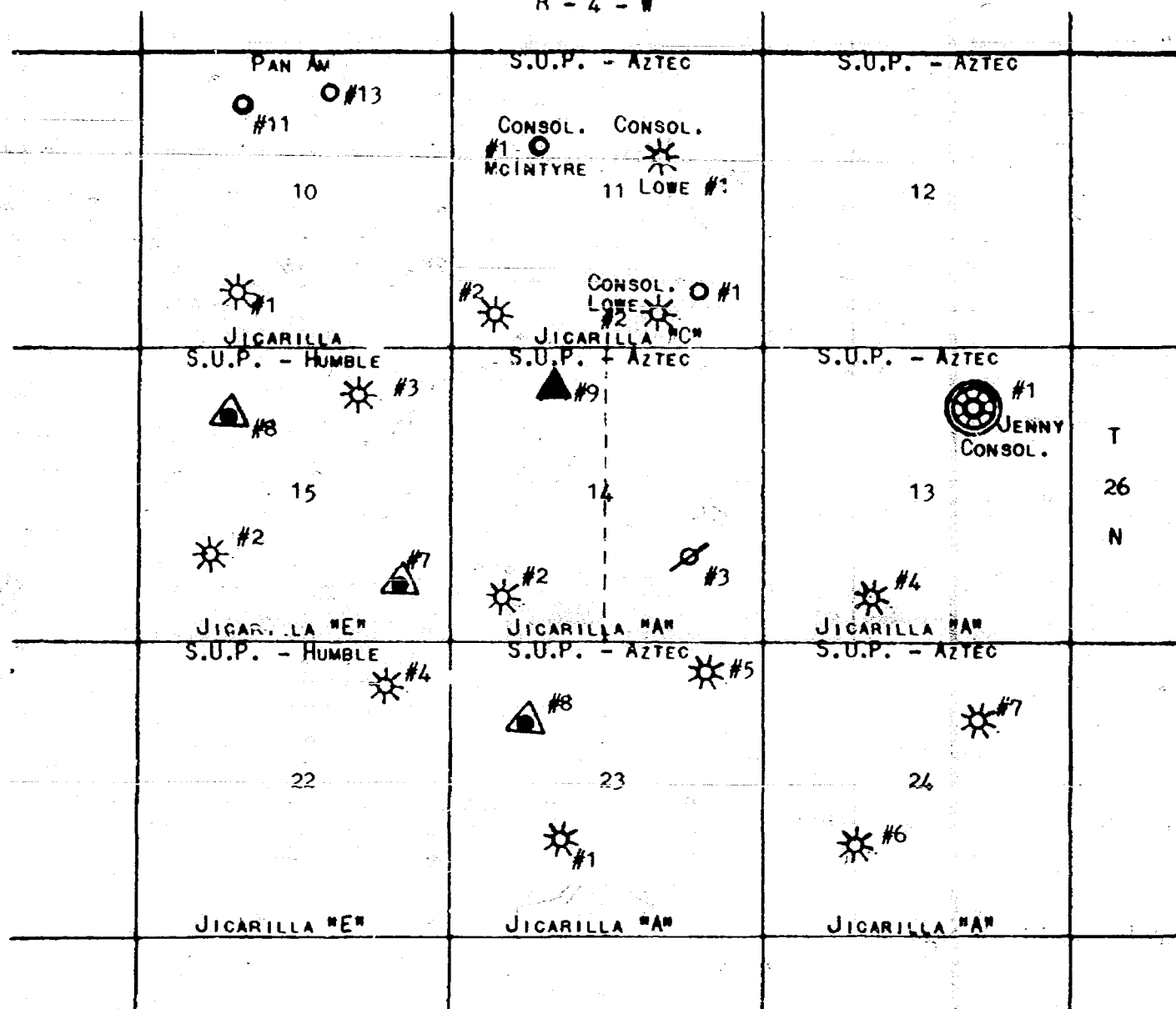
Original signed by
GILBERT D. NOLAND, JR.







*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 proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

LOCATION: 790 FT. FROM NORTH LINE & 1670 FT. FROM WEST LINE
SECTION 14, TOWNSHIP 26 NORTH, RANGE 4 WEST, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO

R - 4 - W



-  PROPOSED DAKOTA-MESAVERDE DUAL COMPLETION
-  DAKOTA-GALLUP DUAL
-  DAKOTA
-  PICTURED CLIFFS
-  PLUGGED PICTURED CLIFFS
-  DAKOTA-MESAVERDE DUAL

SURFACE HOLE SIZE - 13-3/4"
INTERMEDIATE HOLE SIZE - 9-7/8"
PRODUCTION HOLE SIZE - 6-3/4"

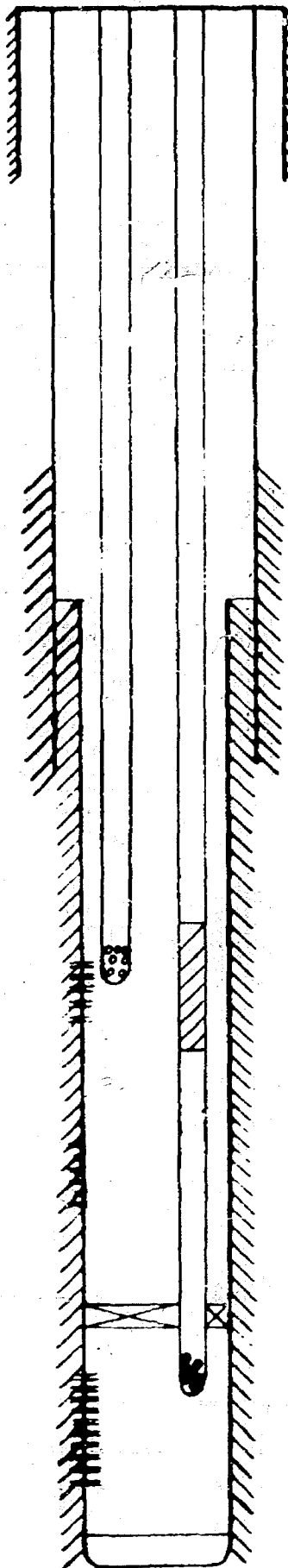
LARKIN FIG. 905, 7-5/8" CASING
CENTRALIZERS RUN ON 30 FT.
SPACING ON 7-5/8" CASING FROM
3534 FT. TO 3834 FT. R.K.B.

MESAVERDE PERFORATIONS 5744 FT.
TO 5826 FT. R.K.B.

BHP 1140

DAKOTA PERFORATIONS 7780 FT. TO
7980 FT. R.K.B.

BHP 2200



SOUTHERN ' ON PRODUCTION COMPANY
JICARILLA A# NO. 9
790 FT. FROM NORTH LINE & 1670 FT. FROM
WEST LINE OF SECTION 14, TOWNSHIP 26 NORTH
RANGE 4 WEST, N.M.P.M., RIO ARriba COUNTY
NEW MEXICO.

BASIN DAKOTA - BLANCO MESAVERDE
DUAL COMPLETION

SURFACE CASING: 10-3/4", 40.50#, H-40,
SET AT 314 FT. R.K.B. CEMENTED TO
SURFACE W/200 SACKS CEMENT.

TOP CEMENT ON 7-5/8" CASING AT 2500 FT.
R.K.B.

TOP LINER 5-1/2", 15.50#, J-55 CSG. AT
3705 FT. R.K.B.

TOP CEMENT ON 5-1/2" LINER AT 3705 FT.
R.K.B.

INTERMEDIATE CASING: 7-5/8", 26.40#, J-55
SET AT 3834 FT. R.K.B. CEMENTED W/350
CU. FT. CEMENT.

1-1/2" INTEGRAL JOINT, 2.75#, JCW TBG.
SET TO MESAVERDE. LANDED AT 5800 FT. RKB.
2-1/16" O.D. BAKER BLAST JOINTS RUN ACROSS
MESAVERDE PERFORATIONS. TOP AT 5735 FT.
BOTTOM AT 5835 FT. R.K.B.

1-1/2", E.U.E., 2.90#, JCW TBG. SET TO
DAKOTA, LANDED AT 7899 FT. R.K.B.

BAKER 5-1/2" MODEL "D" PRODUCTION PACKER
SET AT 7660 FT. R.K.B.

BOTTOM 5-1/2", 15.50#, J-55 LINER AT 8034
FT. R.K.B. CEMENTED TO TOP OF LINER W/600
CU. FT. CEMENT.

P.B.T.D. 8020 FT. R.K.B.
TOTAL DEPTH 8035 FT. R.K.B.

SOUTHERN UNION PRODUCTION COMPANY

COPY

AUGUST 6, 1968

PAN AMERICAN PETROLEUM CORPORATION

~~P. O. Box 123~~ Security Life Bldg
DENVER, COLORADO 80201

ATTENTION: MR. R. B. GILES

DEAR SIR:

SOUTHERN UNION PRODUCTION COMPANY PROPOSES TO DUALY COMPLETE THEIR JIGARILLA "A" NO. 9 WELL IN THE BASIN DAKOTA AND BLANCO MESAVERDE FORMATIONS. THIS WELL IS LOCATED 790 FEET FROM THE NORTH LINE AND 1670 FEET FROM THE WEST LINE OF SECTION 14, TOWNSHIP 26 NORTH, RANGE 4 WEST, N.M.P.M., RIO ARriba COUNTY, NEW MEXICO.

OUR RECORDS INDICATE THAT YOU ARE THE OWNER AND OPERATOR OF THE AGREASE WHICH ADJOINS THIS DRILLING BLOCK. IF YOU HAVE NO OBJECTIONS TO THIS PROPOSED DUAL COMPLETION, WE WOULD APPRECIATE YOUR SIGNING THE ATTACHED TWO COPIES OF THIS LETTER AND RETURNING SAME TO THIS OFFICE.

YOUR PROMPT CONSIDERATION OF THIS WILL BE APPRECIATED.

YOURS VERY TRULY,

SOUTHERN UNION PRODUCTION COMPANY

Gilbert D. Noland Jr.

GILBERT D. NOLAND, JR.
DRILLING SUPERINTENDENT

GDN:RAY
ATTACHMENTS

THE ABOVE DUAL COMPLETION WELL IS HEREBY APPROVED.

PAN AMERICAN PETROLEUM CORPORATION

BY: *Jim Curtis*

TITLE: *Dist. Prod. Supt.*

DATE: *8-17-68*

PACKER-SETTING AFFIDAVIT
(Dual Completions)

STATE OF NEW MEXICO)
County of SAN JUAN) ss

Jerry Dameron, being first duly sworn according to law, upon his oath deposes and says:

That he is of lawful age and has full knowledge of the facts herein below set out.

That he is employed by Baker Oil Tools in the capacity of Oilfield Service Engineer and as such is its authorized agent.

That on June 14, 19 68, he personally supervised the setting of a Model "D" 5-1/2" in Southern Union Production Company's
(Make and Type of Packer) (Operator)

Jicarilla "A" Well No. 9, located in Unit
(Lease)
Letter C, Section 14, Township 26 North, Range 4 West, NMPM,
Rio Arriba County, New Mexico.

That said packer was set at a subsurface depth of 7660 feet,
said depth measurement having been furnished by Schlumberger.

That the purpose of setting this packer was to effect a seal in the annular space between the two strings of pipe where the packer was set so as to prevent the commingling, within the well-bore, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer. That this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

BAKER OIL TOOLS
(Company)

Jerry W. Dameron
Jerry Dameron (its Agent)

Subscribed and sworn to before me this the 7th day of August, AD, 19 68.

Kenneth E. Liddy
Notary Public in and for the County
of San Juan

MY COMMISSION EXPIRES APRIL 4, 1972

My Commission Expires _____.

SEPTEMBER 9, 1968

NEW MEXICO OIL CONSERVATION COMMISSION
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410

ATTENTION: MR. E. C. ARNOLD

DEAR SIR:

ENCLOSED, AS REQUESTED, ARE FOUR (4) COPIES OF WELL LOCATION AND
ACREAGE DEDICATION PLAT TO COVER THE BASIN DAKOTA AND BLANCO
MEBAVERDE FORMATIONS OF SOUTHERN UNION PRODUCTION COMPANY'S
JICARILLA "AP No. 9 WELL LOCATED IN UNIT C, 1670 FEET FROM THE
WEST AND 790 FEET FROM THE NORTH LINE OF SECTION 14, TOWNSHIP 26
NORTH, RANGE 4 WEST, N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO.

YOURS VERY TRULY,

SOUTHERN UNION PRODUCTION COMPANY

GILBERT D. MOLANE, JR.
DRILLING SUPERINTENDENT

GDM:RAY
ENCLOSURES

cc: BENNY E. BECHTOL - EXPLORATION

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator SOUTHERN UNION PRODUCTION COMPANY			Lease JICARILLA "A"		Well No. 9
Unit Letter C	Section 14	Township 26 NORTH	Range 4 WEST	County RIO ARriba	
Actual Portage Location of Well: 790 feet from the NORTH line and 1670 feet from the WEST line					
Ground Level Elev. 6916.0	Producing Formation DANOTA NEBAVERSE		Pool DANOTA BLAND NEBAVERSE	Dedicated Acreage: 1/2-320 1/2-320 Acres	

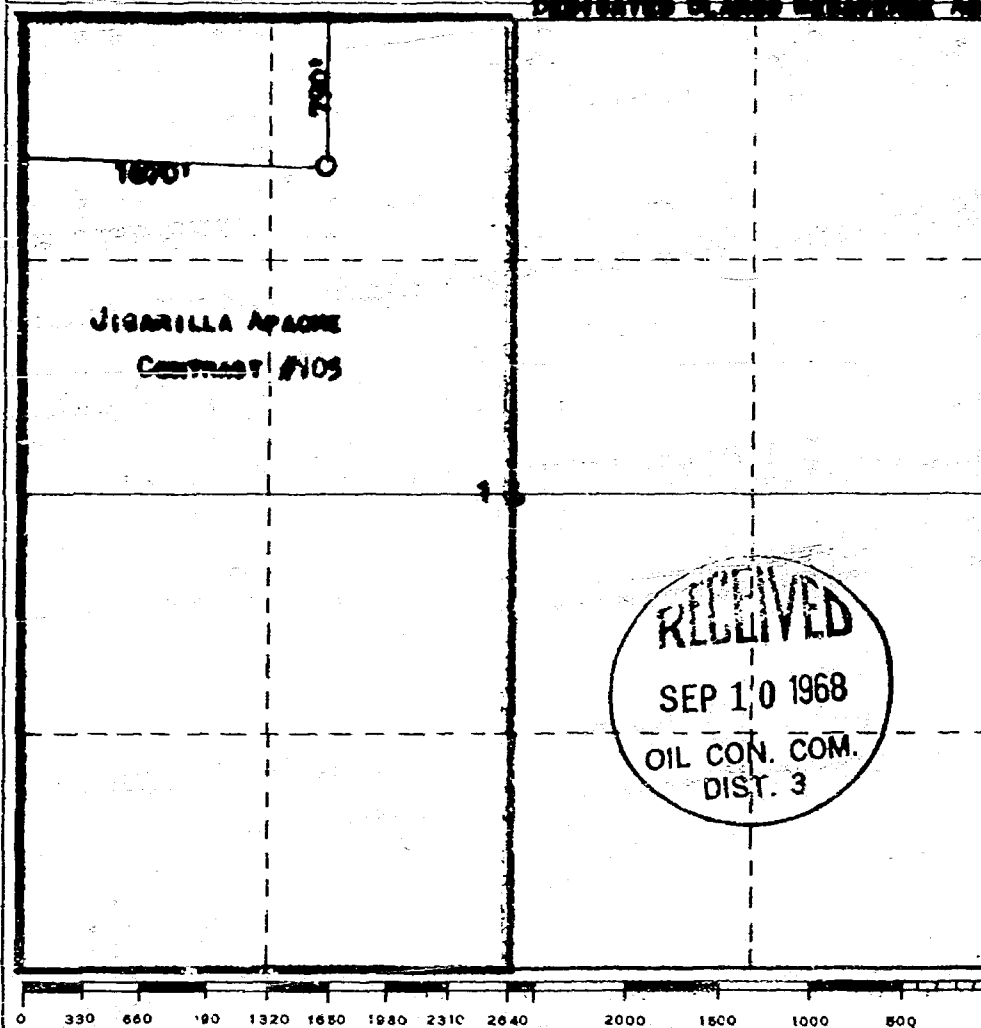
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is 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 **COMMUNITIZATION**

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 will 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.

DEDICATED DANOTA ACREAGE
DEDICATED BLAND NEBAVERSE ACREAGE



CERTIFICATION

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

Gilbert D. McLand, Jr.
Name

GILBERT D. McLAND, JR.
Position

DRAILLER SUPERINTENDENT
Company

SOUTHERN UNION PRODUCTION CO.
Date

SEPTEMBER 9, 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.

Date Surveyed

MAY 6, 1968

Registered Professional Engineer and/or Land Surveyor

JAMES P. LARSEN

Certificate No.

1463