

Case No.

526

Application, Transcript,
Small Exhibits, Etc.

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

May 15, 1953

Mr. Earl Brune
Western Natural Gas Company
Midland Tower
MIDLAND, TEXAS

Dear Sir:

We attach signed copies of Order R-318 issued under date of
May 11 in Case 526, heard by this Commission on your petition
and testimony on April 16, 1953.

Very truly yours,

W. B. Macy
Chief Engineer

WBM:mr

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 526
ORDER No. R-318

THE APPLICATION OF WESTERN NATURAL
GAS COMPANY FOR AN ORDER GRANTING
PERMISSION TO DUALY COMPLETE AND
PRODUCE ITS COMBEST NO. 1-X WELL,
LOCATED IN THE SE/4 NE/4 OF SECTION 35,
TOWNSHIP 23 SOUTH, RANGE 36 EAST, NMPM,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 16, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 24 day of May, 1953, the Commission, a quorum being present, having considered the records and the testimony adduced, and being fully advised in the premises,

FINDS:

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

(2) That applicant's Combest No. 1-X Well, SE/4 NE/4 Section 35, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico, was completed in January 1942 as an oil well producing from the Seven Rivers-Queen formation of the Cooper-Jal Pool through the open-hole section 3488-3579, having drilled through the Yates gas zone at an approximate depth of 2945-3230 feet.

(3) That although recent experiments tend to show that mechanical packers and other devices are ordinarily available for successful dual/multiple completions of oil - gas wells, the Commission is unconvinced of the soundness as a waste-prevention practice, of such dual/multiple completions as a general practice in New Mexico without specific controls over each such project.

IT IS THEREFORE ORDERED:

That applicant herein, Western Natural Gas Company, be, and it hereby is authorized to dualy complete and produce its Combest No. 1-X Well, SE/4 NE/4 Section 35, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico, in such a manner that gas from the Yates gas zone of the Langmat Gas Pool may be produced through the annular space between the casing and the tubing, and oil from the Seven Rivers-Queen formation of the Langlie-Mattix Pool through the tubing by proper perforations and the installation of a proper packer;

PROVIDED, HOWEVER, That upon the actual dual completion of such subject well applicant shall submit to the District Office of the Commission in which the subject well is located Form C-103, Form C-104, Form C-110 and Form C-122 outlining the information required on these forms by existing Rules and Regulations.

PROVIDED, HOWEVER, That subject well shall be completed, and thereafter produced, in such a manner that there will be no commingling within the well bore, either within or outside the casing of gas, oil and gas, or oil produced from either or both of the separate strata, and,

PROVIDED FURTHER, That said subject well for dual completion and production shall be equipped in such a way that reservoir pressures may be determined separately for each of the two specified strata, and further, be equipped with all necessary connections required to permit recording meters to be installed and used, at any time, as may be required by the Commission or its representatives, in order that natural gas, oil, or oil and gas from each separate stratum may be accurately measured and the gas-oil ratio thereof determined, and,

PROVIDED FURTHER, That the operator applicant shall make any and all tests, including segregation tests, but not excluding other tests and/or determinations at any convenient time and in such manner as deemed necessary by the Commission; the original and all subsequent tests shall be witnessed by representatives of the Commission and by representatives of offset operators, if any there be, at their election, and the results of each test properly attested to by the applicant herein and all witnesses, and shall be filed with the Commission within ten (10) days after the completion of such test, and,

PROVIDED FURTHER, That upon the actual dual completion of such subject well, applicant shall submit to the Commission a diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the strata, and a special report of production, gas/oil ratio and reservoir pressure determination of each producing zone or stratum immediately following completion.

IT IS FURTHER ORDERED: That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after proper notice and hearing, the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

E. L. Mecham
EDWIN L. MECHEM, Chairman

E. S. Walker
E. S. WALKER, Member

R. R. Spurrer
R. R. SPURRIER, Secretary

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Western Natural Gas Company

NATIONAL STANDARD BUILDING

Houston 2, Texas

February 23, 1953

ADDRESS CORRESPONDENCE TO
MIDLAND TOWER BUILDING
MIDLAND, TEXAS

RE: Application to Dually Complete
Western Natural Gas Company
Combest #1-X, in the Cooper-Jal
Field, Lea County, New Mexico

Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico

Gentlemen:

By means of this application, Western Natural Gas Company wishes to state the following:

- (a) Western Natural Gas Company Combest #1-X, located in the SE/4 of NE/4 of Section 35, T-23S, R-36E, Lea County, was completed January 5, 1942, at a total depth of 3579 feet. The well had 7" casing set at 3488 feet. Ground elevation was 3344 feet.
- (b) Appended Exhibit A shows the location of the subject well, other wells on the same lease and all offset wells to the Western Natural Gas Company Combest #1-X.
- (c) The subject well was completed as an oil well producing in the open hole section from 3488' to 3579' from the 7 Rivers - Queens formation. A schematic diagram of the current well completion is shown in Exhibit B.

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FEB 26 1953
MIDLAND TOWER BUILDING
MIDLAND, TEXAS

(j) The applicant proposes to dually complete the well to produce oil from the 7 Rivers - Queens formation through the tubing and gas from the Yates formation through the tubing - casing annulus in the following manner:

(1) Perforate the 5½ inch casing from approximately 2945 feet to 3230 feet opposite the Yates formation.

(2) Set a production packer below the casing perforations at an approximate depth of 3478 feet to separate the two pay zones.

The manner and method of the dual completion is shown in the schematic diagram as Exhibit C.

(e) A Gamma Ray - Neutron Log will be run on subject well before perforating the Yates Zone. A copy of this log will be mailed to your office.

(f) Granting of this application for permission to produce the well as a dual completion with oil from the 7 Rivers - Queens formation and gas from the Yates formation is in the interest of conservation and protection correlative rights.

(g) The applicant will comply with all rules and regulations of the New Mexico Oil Conservation Commission to maintain separation of production from the two pay zones.

(h) The manner and method of the proposed dual completion is mechanically feasible and practical.

Therefore, Western Natural Gas Company requests that the New Mexico Oil Conservation Commission set a certain day upon which this application may be heard and after said hearing to grant permission in order that the applicant may dually complete the subject well as proposed in this application.

Respectfully submitted,

WESTERN NATURAL GAS COMPANY

Earl R. Bruno

Earl R. Bruno
Division Engineer

Encl: Exhibit A: Plat showing location
of subject well, other
wells on same lease and
all offset wells.

Exhibit B: Schematic diagram of sub-
ject well completion.

Exhibit C: Manner and method of dual
completion proposed in
subject well.

EXHIBIT A - SHOWING LOCATION OF COMBEST I-X & ALL OFF

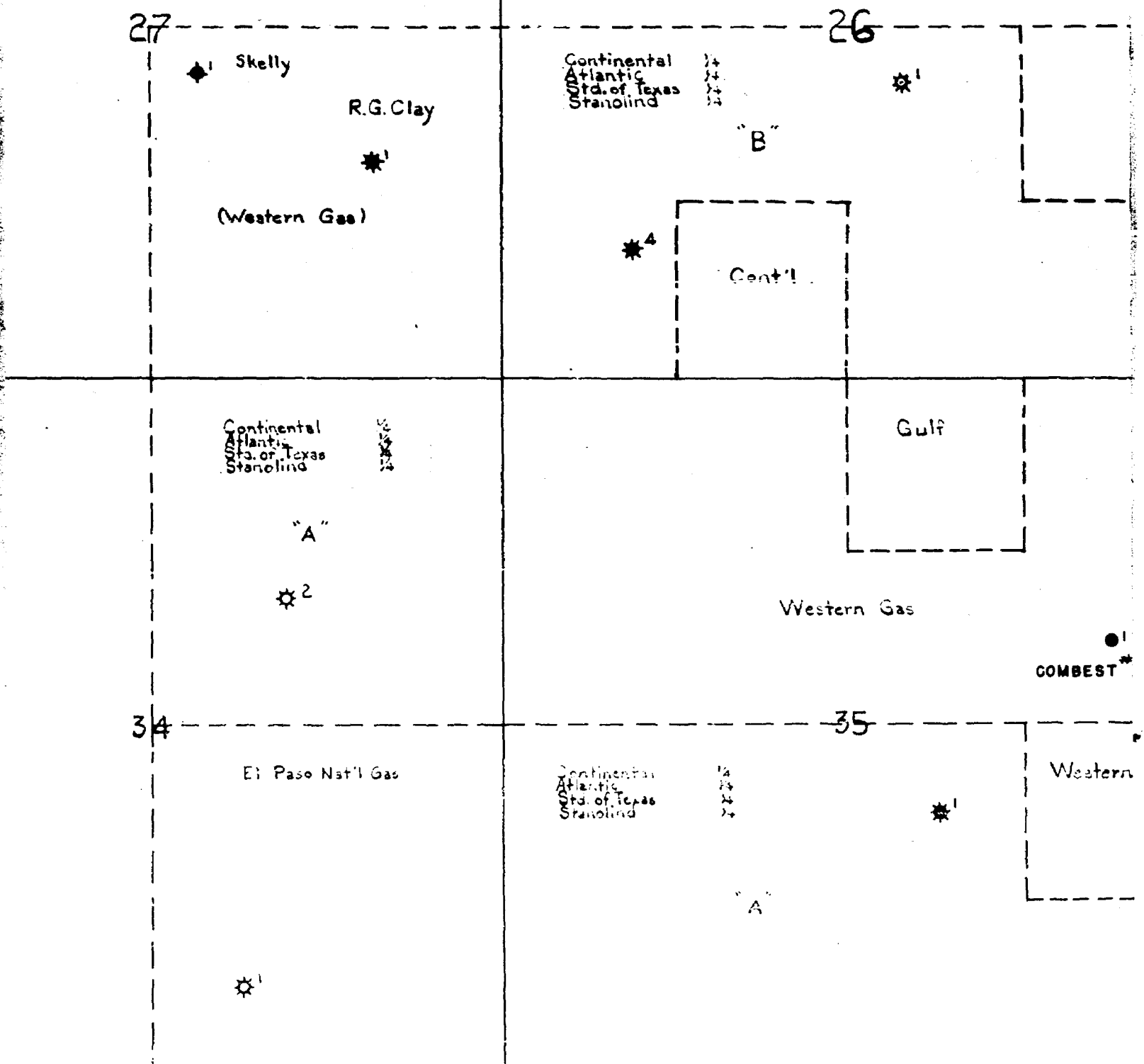
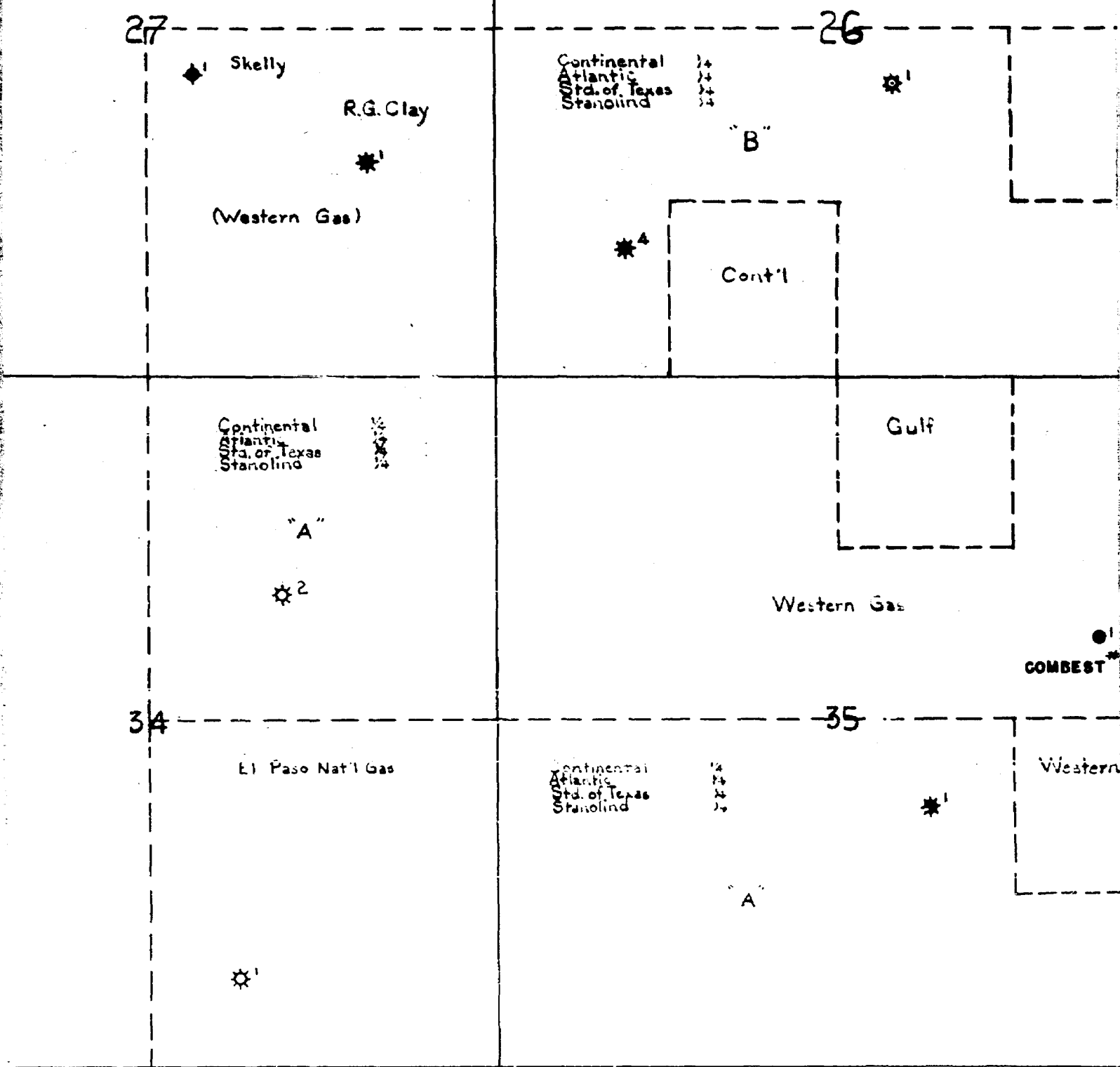
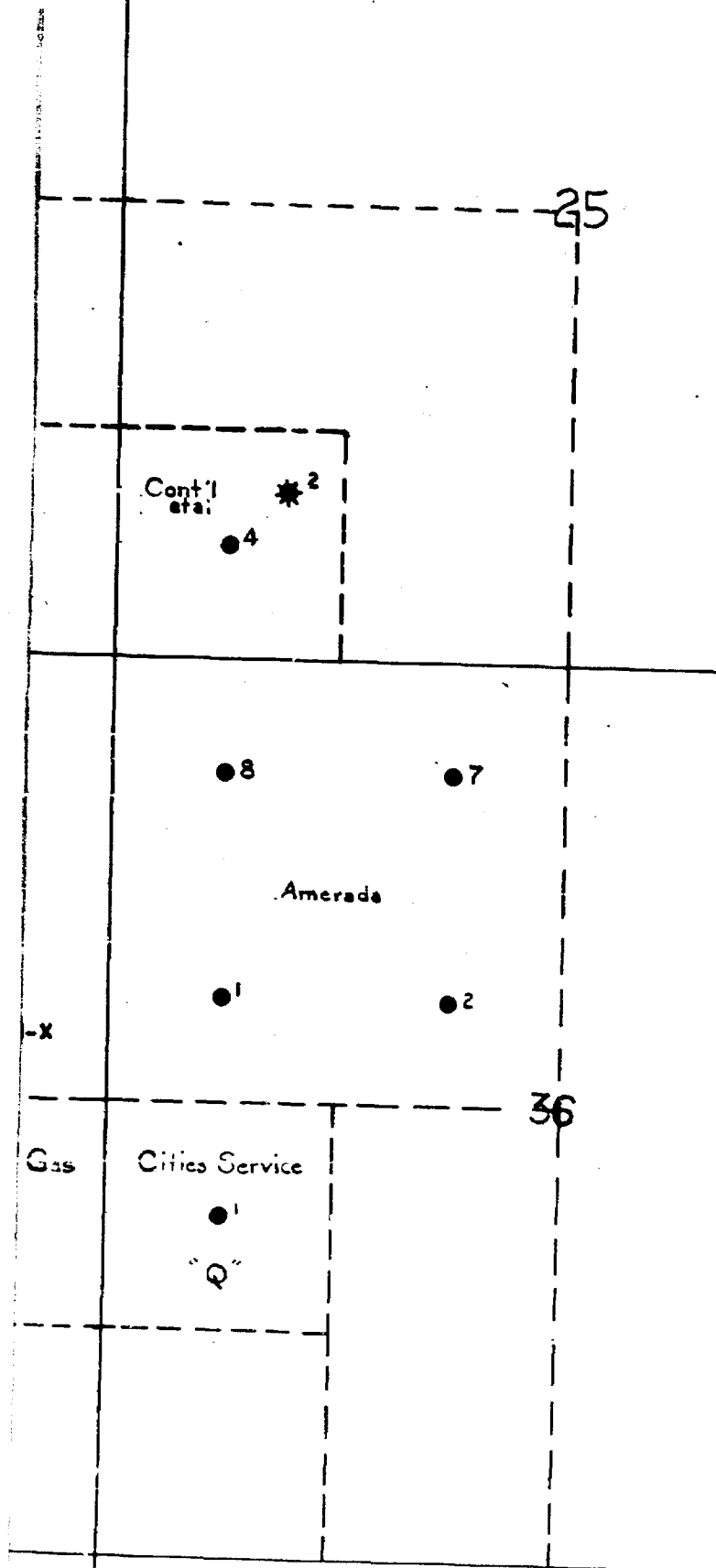


EXHIBIT A — SHOWING LOCATION OF COMBEST 1-X & ALL OFF



SCALE: 1" = 1000'

SET WELLS



- — OIL WELL
- ◆ — ABANDONED PRODUCER
- ⊗ — GAS WELL

EXHIBIT B - SCHEMATIC DIAGRAM OF CURRENT COMPLETION STATUS
OF WESTERN NATURAL GAS COMPANY COMBEST[#] 1-X

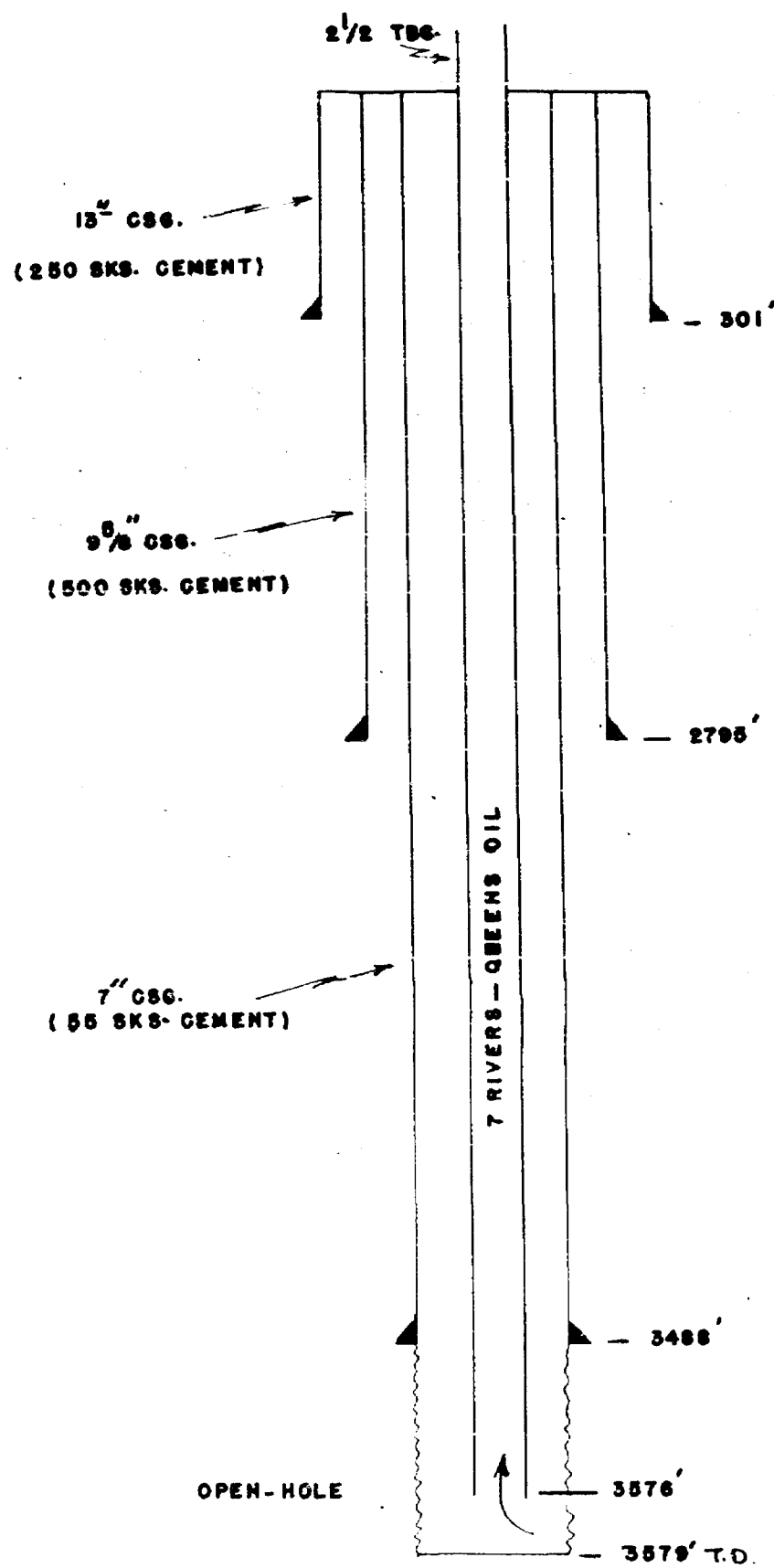
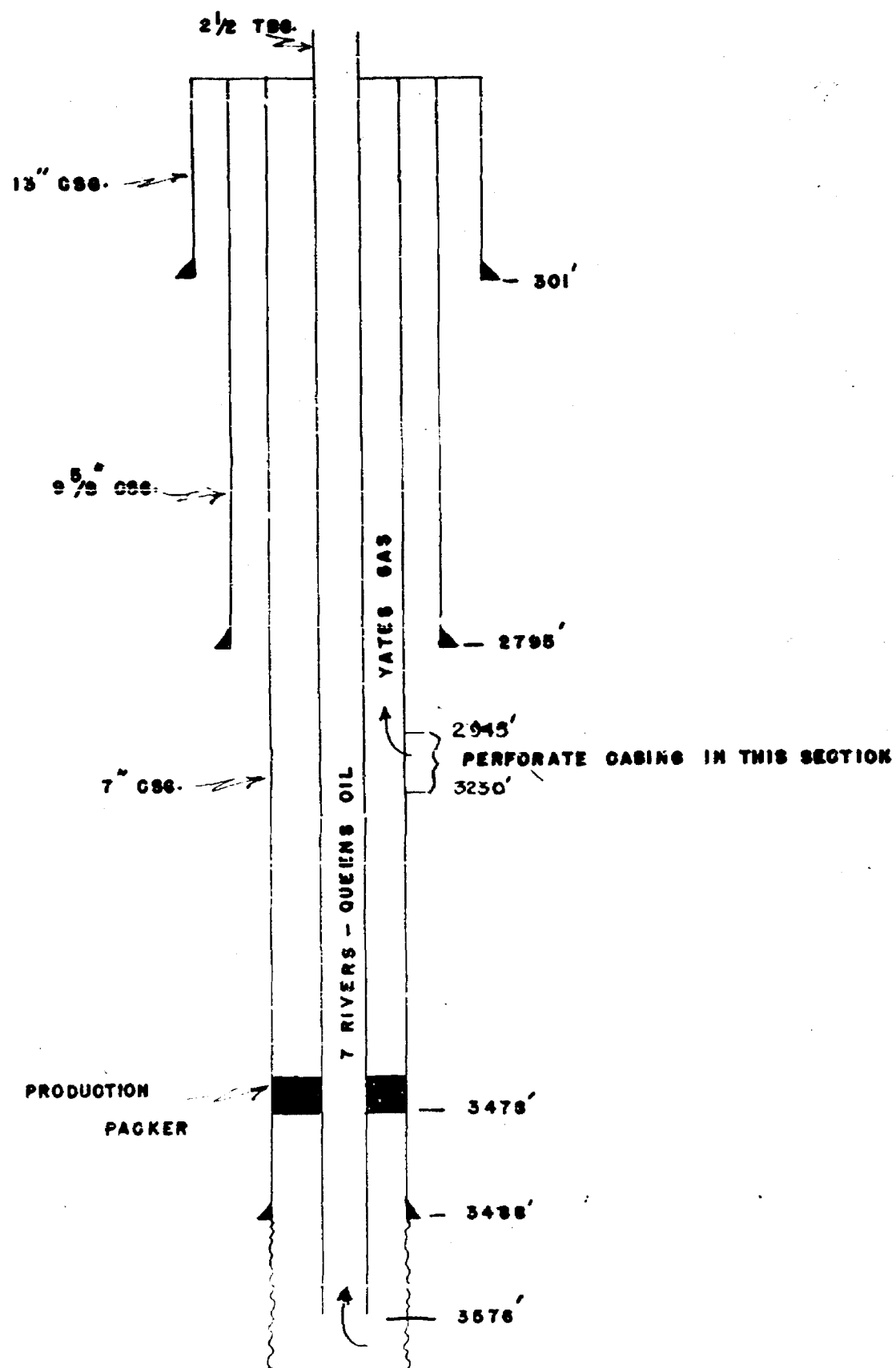


EXHIBIT C - SCHEMATIC DIAGRAM OF PROPOSED DUAL COMPLETION
WESTERN NATURAL GAS COMPANY COMBEST[#]1-X



BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

April 16, 1953

CASE 526: In the matter of the application of Western Natural Gas Company for an order permitting dual completion of its Combust No. 1-X Well, SE/4 NE/4 Section 35, Township 23 South, Range 36 East, NMPN (Cooper-Jal Pool), Lea County, New Mexico, in such manner as to permit production of oil from the Seven Rivers-Queen formation and gas from the Yates formation of the Langust Gas Pool.

EARL BRUNO.

having first been duly sworn, testified as follows:

Mr. BRUNO: I'm Earl Bruno, having a position of Division Engineer with Western Natural Gas and I'm a graduate petroleum natural gas engineer and I'd like to ask the Commission if I'd be a qualified witness.

Mr. SPURRIER: The Commission will accept your qualifications.

Mr. BRUNO: I have an application to the Commission to dual complete Western Natural Gas Combust No. 1-X Well in Lea County, New Mexico.

I have three exhibits here. One being the location of the well, Exhibit B being the current completion status of the well and Exhibit C, being the proposed dual completion of the well. And since I haven't appeared here before, if you -- do you have any questions on the dual completion -- what is the procedure?

Mr. SPURRIER: You should go ahead and explain how you intend to dually complete this well.

Mr. BRUNO: We intend to produce oil from the Seven Rivers-Queens Section through the tubing -- set a bigger production packer in through the tubing -- in the seven inch casing to separate the two zones, separate the Yates Section which will produce gas through the annulus between the tubing and the casing.

Mr. SPURRIER: Are there any questions of the witness?

Mr. GRAHAM: Are you familiar with the usual type of order that dual completions of that sort -- which are issued to the Commission?

Mr. BRUNO: I don't believe I understand your question.

Mr. GRAHAM: Are you familiar with the type of order usually issued by the Commission in such cases?

Mr. BRUNO: I still don't understand, sir.

Mr. WHITE: Do these exhibits show about the depth you're going to put your packer and what type of packer you're going to use?

Mr. BRUNO: Yes, sir.

Mr. WHITE: And what you're going to use to seal it off?

Mr. BRUNO: Yes, sir.

VOICE: Do you offer these exhibits you have in evidence?

Mr. BRUNO: Yes, sir.

Mr. SPURRING: Without objection, they will be received. Are there any further questions of the witness?

Mr. GRAHAM: Does that show how you're going to produce that seal both inside and outside? To keep the comingling between the two formations?

Mr. BRUNO: Yes, sir. I said that we'd set the Baker production packer between the two zones.

Mr. GRAHAM: And will you present a drawing of plans of actual installations for the Commission's approval?

Mr. BRUNO: Yes, sir. We also run a -- on this particular well, we don't have an electrical log and we'll run a gamma ray neutron and submit that to the Commission after we have run same.

Mr. MACKEY: On your seven inch casing and your five inch casing -- -- you mention something about 75 sacks of cement -- --

Mr. BRUNO: Yes, sir.

Mr. MACKEY: Do you have any evidence to prove that that number of sacks will cover your proposed pay section from the Yates Seven-Rivers or just the Yates, I presume?

Mr. BRUNO: No, I wouldn't think it did cover the the proposed -- the Yates Section.

Mr. MACKEY: Well, you've got to fill that formation -- between the top

of your cement and the Yates, haven't you?

Mr. BRUNO: Well, I don't understand what you're getting at, sir.

Mr. MACHY: Well, - - -

Mr. BRUNO: If we have - - cemented at the bottom of the casing 3488 which was through your Yates Gas - - - which will seal your Yates Gas off from your Seven-Rivers Queens Section producing from the open hole, that you perforate your seven inch casing, I don't see what question you're getting at, sir.

Mr. MACHY: Well, here's what I'm getting at. The fact remains that that dual completion down in Lea County will perforate the Yates gas interval and get oil due to the fact that the oil was coming from another zone behind the pipe due to a defective cement job which you may or may not have in this case.

Mr. BRUNO: I imagine if we get - - if we perforate and get oil, we'd better squeeze the oil off - hadn't we?

Mr. MACHY: That's what I wanted to know.

(Laughter)

Mr. SPURRIER: Are there any further comments in this case? If, not, we'll take it under advisement and move on to case 527.

STATE OF NEW MEXICO ;
COUNTY OF SANTA FE) ss.

I hereby certify that the foregoing and attached transcript of hearing in Case 526 before the Oil Conservation Commission on April 16, 1953, at Santa Fe, is a true record of the same to the best of my knowledge, skill and ability.

DATED AT Santa Fe, this 30th day of April, 1953.


Andrey M. Henrikson

My commission expires September 20, 1955.