Case No.

1609

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
FEBRUARY 25, 1959

IN THE MATTER OF:

APPLICATION OF CONTINENTAL OIL COMPANY, CASE 1609.

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE NEW MEXICO
Phone CHapel 3-6691

BEFORE THE
OIL CONSERVATION COMMISSION
FEBRUARY 25, 1959

IN THE MATTER OF:
Application of Continental Oil Company for an oil-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Warren Unit Well No. 10 located 660 feet from the North line and 2310 feet from the East line of Section 28, Township 20 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Warren-Blinebry Gas Pool and the production of gas from the Warren-Tubb Gas Pool through parallel strings of 2" tubing. Case 1609

BEFORE:
E. J. Fischer, Examiner.

TRANSCRIPT OF HEARING

MR. FISCHER: The next case on the Docket will be case 1609.

MR. PAYNE: Case 1609: Application of Continental Oil Company for an oil-gas dual completion.

MR. KELLAHIN: Jason Kellahin, of Kellahin and Fox, Santa Fe, New Mexico, representing the applicant. We have one witness, Mr. Francis.

(Witness sworn.)

MR. FISCHER: Any other appearances to be made in this case?

R. J. F R A N C I S, a witness called by and on behalf of the Applicant, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q State your name, please?

A R. J. Francis.

Q By whom are you employed and in what position?

A I am employed by Continental Oil Company as a production engineer. I work out of the Hobbs District.

Q Have you previously testified before the Oil Conservation Commission as an expert petroleum engineer and had your qualifications accepted?

A Yes, sir.

MR. KELLAHIN: Are his qualifications accepted?

MR. FISCHER: Yes, sir.

Q (By Mr. Kellahin) Mr. Francis, are you familiar with the facts and details in the case presently before the Commission?

A Yes.

Q Would you briefly review the reason for that?

A Under Administrative Order Number D. C. 664, issued by the Commission on August 22, 1958, Continental Oil Company plugged back its Warren Unit Well Number Ten, originally completed in the Drinkard, for recompletion as a gas-gas dual adjacent to the Warren Blinebry and Warren Tubb gas pools. Upon performance of this work, the following results were obtained:

The Blinebry zone, flowing through a 10/64 inch choke, produced 24 barrels of oil in 24 hours with 247 MCF of gas for a

ratio of 17,958. The gravity of oil produced is 34.6 API. Flowing tube pressure was 211 psi. Shut-in well head pressure was 1662 psi. The Tubb zone, flowing on a 20/64 inch choke produced 1902 MCF gas with 47 barrels distillate for a gas-distillate ratio of 40,468. Distillate gravity was 60.9 degrees API. Flowing pressure 843 psi, shut-in pressure 2,098 psi.

Since the gas-oil ratio and gravity of the fluid produced in the Blinebry pay of Number Ten does not meet the requirements for classification as a Warren Blinebry gas well, Continental Oil Company is requesting that the Commission issue an order authorizing the dual completion of this well, utilizing parallel tubing strings to produce oil from the Blinebry and gas from the Tubb formation.

Q Have you prepared any exhibits to support your testimony in connection with this application?

A Yes, sir, I have.

Q Referring to what has been marked as Exhibit Number One, would you describe that for us, please?

A Exhibit One is a structure map of the area surrounding the subject well contoured on Blinebry marker. The subject well is encircled in red with the 160 acre Tubb gas proration unit to be assigned the well also outlined in red. The 40 acre Blinebry oil unit to be assigned the Blinebry Oil Pool completion is outlined in brown. Also shown are offset wells which are dually completed in the Blinebry and Tubb as gas-gas duals. These are encircled

in green with the proration units assigned to them also encircled in Green. Blinebry oil wells which produce in the Terry Blinebry oil pool are shown to the south in the blue circle.

Q Does the exhibit also show the lease ownership in this area?

A It does. It may be seen that Continental owns all acreage offsetting the subject well in the proposed unit.

Q Referring now to the Blinebry completion, how does the number ten compare with other wells producing from the Blinebry?

A From Exhibit One, it may be seen it is structurally comparable to our Warren Unit Wells Numbers 20, 21 and 26. Two of these wells, Number 20 and 21,are oil wells, as I have stated previously in the Terry Blinebry Pool, and Number 26 is a gas distillate well producing in the Warren-Blinebry Gas Pool.

Q In your opinion, is the porosity development in the Blinebry from location to location continuous throughout these wells?

A Well, in general that is the case. However, within the Blinebry there are three distinct zones and the effective porosity and permeability from location to location does vary in regard to the different zones.

Q But the oil bearing zones in the Number Ten would actually be a continuation of the Terry Blinebry Oil Pool, would it not?

A That is probably correct, yes, sir.

Q What is your explanation of the fact that one well, the Number 26, is gas and distillate productive at a subsea depth comparable to Number 10, Number 20 and Number 21, which are oil productive?

A As I mentioned previously, the porosity is continuous from location to location. There is an indication that the amount of effective porosity and permeability does vary. I would like to refer now to Exhibit Two, which is a log section of the Well Number 10, showing the Blinebry Marker, the Tubb Marker --

Q Before you refer to Exhibit Two, give us the location of the wells about which we have been talking.

A Yes, sir. The subject wells, the Warren Unit Ten is located 660 feet from the North line and 2310 feet from the East line of Section 28, Township 20 South, Range 38 East. The Warren Unit Well Number 26 is situated 660 feet from the South and West lines of Section 27 of the said township and range. Well Number 21 is situated 660 feet from the North line and 980 feet from the East line of Section 33 of said township and range, and Well Number 20 is located 980 feet from the North and 660 feet from the west line of Section 34, Township 20 South, Range 38 East.

Q That last was well Number 21?

A Twenty.

Q Twenty?

A That is right.

Q Referring to Exhibit Number Two, Mr. Francis, would you

discuss that?

A Exhibit Number Two is a log section of the subject well. On it are shown the existing perforations in the Blinebry, the existing perforations in the Tubb, the situation of the packer and the top of the Blinebry marker and the top of the Tubb and also the top of the Drinkard.

Getting back to this question of porosity development within the various zones in the Blinebry it may be seen from Exhibit Two that there are three distinct zones within it. One would be that porosity development above 5900 feet. The second would be that porosity development between 5900 feet and approximately 6,050 feet, and the third zone would be the porosity below or approximately 6,090.

As I mentioned previously, the amount of effective porosity and permeability within these zones varies greatly from location to location. You can't predict the performance of them.

In Case 1468, which dealt with the creation of the Warren Blinebry Gas Pool, this evidence was discussed at great length with the conclusion being drawn that in this area where the upper zone, or that portion above 5900 feet in the subject well, exhibits good porosity and permeability development, then gas production will result or actually the gas accumulation is contained within the top zone in this particular area.. And it was also discussed in this case that on the flanks apparently this porosity and permeability development in this zone plays out and that the

principal power of zones contributing to production are those situated below 5900 feet, the zone of production is off.

Based on this evidence, I would say that the Number 26 produces gas as a result of porosity and permeability development of the upper zone in that well.

Q Twenty-six?

A That is correct. While the upper zone in Number 10, 20 and 21 is very slight and probably all production is coming from the lower zone. And more evidence in support of this is the comparison of gravities of the fluid, gas-oil ratios and producing pressures.

Q Referring to, again to Exhibit Number Two, do the perforations within the Blinebry conform to the vertical limits of the Warren Blinebry pool?

A That is correct. When we recompleted this well, it was assumed it would be a gas completion based on Number 26 after perforations were made in accordance with pool rules for the Warren Blinebry Gas Pool.

Q Do they conform to the vertical limits established for the Terry-Blinebry Oil Pool?

A No, sir. I believe the lower limits of the Terry-Blinebry Oil Pool are defined as being from 75 feet above the Blinebry marker to a point 300 feet below the Blinebry marker. It may be seen from the log section that perforations within the Blinebry extend to approximately 370 feet below the Blinebry marker

in this case, and, therefore, it would not qualify for within the Terry-Blinebry pool rule in that point.

Q Then in order for this well to conform to the existing rules of the Commission, would it be necessary to classify the well as an oil well in the Blinebry Gas Pool?

A Yes, sir.

Q It would not fit the description of an oil well in the Terry-Blinebry Oil Pool?

A No, sir.

Q Would this be possible under the present rules of the Warren Blinebry pool?

A In my opinion, it would, yes, sir. The rules specify that wells completed in the Blinebry within one mile of the horizontal limits of the Warren Blinebry gas pool which are not situated within or closer to another Blinebry pool shall be classified as a Warren Blinebry pool well and will be spaced and produced accordingly. The rules also specify the conditions which must prevail for a well to be classified as an oil well in the Warren Blinebry pool.

Q Does this well meet the requirements of an oil well in the Warren Blinebry Pool?

A Yes, sir. It couldn't be classified as anything else with the gas-oil ratio and gravity of fluids produced, as I have mentioned previously.

Q As I understand your previous testimony, this well is,

has already been completed as a dual completion under provision of an administrative order, is that right?

A Yes, that is right.

Q Have you prepared a diagrammatic sketch of this well?

A Yes, I have. It is marked as Exhibit Number Three.

Q Would you describe the completion for us, please?

A Well, Exhibit Three depicts the casing record for the well showing existing perforations within the Blinebry, existing perforations within the Tubb and the point at which the packer is situated. Also shown is the top of the cement behind each string of casing. And to the right on the exhibit there is a detailed diagrammatic drawing of the downhole dual completion equipment for the well. The Baker permanent type production packer is situated at 6370 to separate fluids produced from the two zones and production from the Tubb gas zone from below the packer is through two inch external upset four point seven pound tubing. And there is a perforation nipple situated one joint off the bottom. This tubing set at a depth of 6500 feet for the production in the Blinebry gas zone will be through two inch upset tubing using the hydril "CS" tubing joints bottomed at approximately 5900 feet with a seating nipple immediately below the bull plug tubing; and I better mention here that on the tubing string we have provided a safety joint above the packer such that it will be possible for us to go in and retrieve this tubing string and work on the Blinebry zone if it is desireable. It is located

6366.

Q Is this the type of completion heretofore approved by this Commission?

A Yes, sir. It is the standard procedure that we have used in dualing all of these wells in that area, and it conforms with them in every respect.

Q Have any tests been made to check for communication between the Tubb and Blinebry zones?

A Yes, sir. We have conducted a packer leakage survey in accordance with the Commission regulations, and it has been submitted as Exhibit Number Four. Probably the best thing to do would be to refer to the graph of shut-in pressures, and it is apparent from this that no evidence of communication exists between the Tubb and Blinebry zones as shown by the pressure build up curves.

Q In your opinion, is the approval of this application in the interest of conservation and prevention of waste?

A Yes, sir, it is, in that it provides for adequate development of our acreage, and in conformance with the royalty owner's desire.

Q Were Exhibits One through Four inclusive prepared by you or under your direction and supervision?

A Yes, sir, they were.

MR. KELLAHIN: At this time we would like to offer Exhibits One through Four inclusive.

MR. FISCHER: Without objection they will be received.

MR. KELLAHIN: That is all the questions I have.

MR. FISCHER: Any questions of the witness? Mr. Nutter.

CROSS EXAMINATION

BY MR. NUTTER:

Q Do you believe that the occurrence of oil in the Blinebry formation here in Well Number 10 of yours calls for a re-evaluation of the designation of this pool? Perhaps this should be classified as an oil pool rather than a gas pool.

A Well, sir, as I mentioned in the testimony that was presented in the case for creation of this pool, evidence was presented that gas production occurred there as a result of the upper zone having closed this permeability development. This is based strictly on performance. Since we have no corresponding data, an interpretation of logs in that area is erratic. However, I feel that completions that we have charted and performance tends to bear that out. That is why I brought out the fact that Number 26 and Number 10, which are situated at approximately the same subsea depth, are producing quite differently as to producing pressures, gravity of fluid and what not.

If you wish, I have the most recent test on that, those wells that I can give you for comparison of operating conditions. Well Number 26 which was completed on July the 25th of 1958, on the initial completion of that well, the Blinebry zone was tested for

for 300, for absolute potential, of 3,750 MCF of gas, and it produced with 34 barrels of distillate, the gravity being 57.4 degrees API, and the GOR is 53,735. This test was conducted on July 30 of 1958.

Q I missed the GOR.

A 53,735.

Q Now, that 34 barrels, this test of 3750 MCF per day --

A Yes, sir.

Q -- 34 barrels per day --

A That's correct.

Q -- those are daily rates on each?

A Wait a minute. I'll have to provide that for you later, sir. I think I have given you the calculated open flow potential, this 34 barrels of potential was obtained flowing at a definite rate the GOR of 53,735, this was obtained from a Fifty-four test. We will try to obtain three points at a heavier rate and let the well produce for 24 hours so we can get a true evaluation on it.

Q Do you have a more recent test on that?

A Yes, sir, I have. This test was conducted during the annual gas-oil ratio survey of October the 3rd through the 10th, and the calculated open flow at that time was 2,150 MCF per day flowing through a 2/64 inch choke. It produced 1,601 MCF of gas with 45 barrels of distillate, GOR 35,577, flowing tubing pressure 868 psi, and the psi gravity was 44.5.

Q It appears the GOR is coming down in that well?

A That's correct.

Q How many other Blinebry wells are in this pool?

A At this time there is only one other Blinebry well completed.

Q Do you have any test data on that one?

A Yes, sir. I have some, but I question the results and I wouldn't like to give the details on it. It is quite out of line. The GOR on that well was in excess of 100,000 to one. I would like to retest; I can provide that information if you want it.

Q It appears there may be at least justification to take another look at this thing to see if these wells may not be high ratio oil wells rather than low ratio gas wells?

A That is correct. I don't know where you draw the breaking point between a high ratio oil well and a gas distillate well, and it is possible there should be some re-evaluation. As was brought out in Case 1468, it is evident that the production of one well doesn't in anyway interfere with production of another, based on two week shut-in build up pressures of one well of producing wells around it. On that basis, in my opinion, I don't think you can put too much emphasis on the performance of one well to determine what another well can be classified as. I think in this area with that Blinebry like it is, each well is a little pool under it as far as production is concerned.

Q As I recall from the original cause, there is a synclinal low running in a northwest, southeasterly direction which rated this productive area from the regular Blinebry pool?

A That is correct. This is a separate synclinal structure situated north of the Blinebry structure.

Q How about the Terry structure?

A At the present time, the limits of the Terry-Blinebry Pool extend up to the north boundaries of Sections Three and I assume Section 34. I wouldn't be sure on that. I know it does include well 21, however.

Q You say you do plan a retest on this?

A Yes, sir. We will retest it. I will provide the information for you as soon as it is available.

Q We would appreciate it.

A All right.

MR. NUTTER: Thank you.

MR. FISCHER: Any further questions of the witness?

EXAMINATION BY MR. FISCHER:

Q Mr. Francis, do you think it possible on your Exhibit One that dotted line in 33 and 34 showing the Blinebry-Dolomit formation might be the horizontal limits of the Terry-Blinebry?

A It might be. I couldn't make a statement one way or another.

Q Well, to go back over some of your testimony, I believe, is it your opinion that porosity developments in the oil

from the Terry-Blinebry into this area up in here in Section 28 where your Number Ten Well is located, are continuous?

A I think I'd have to assume this is all one accumulation of oil. As far as porosity is concerned, of course, you have the three distinct zones in there, and I know of no evidence that shows they are in communication anywhere. So probably you would have to consider each one separately. And I'm certain the porosity is continuous.

As to permeability, whether it is continuous, I wouldn't say. It is extremely tight and depends upon the amount of shales contained. It can be just as tight as the devil; you can get nothing out of it.

Q This well, Warren Unit 10, is presently perforated beginning at 5805, approximately, is that correct?

A That's correct.

Q And is in the vertical limits of the vertical limits of the Warren-Blinebry Pool?

A That's right. That is the case since we, we had extended perforations below what would be the lower limits of the Terry-Blinebry Pool.

Q Now, in your Exhibit Number Three, your mechanical schematics of the proposed dual completion, the safety joint, does it have a shoulder for a psi tool or blanking tool of any sort?

A No. If you will note situated below the perforating

nipple, we have a ~~sifting~~ seating nipple.

Q That will be your blanking tool?

A That's right. We can set a blanking tool in there.

Q How would you treat the Blinebry gas zone if you had to treat it?

A Of course, about the only thing to treat the Blinebry is to sand frac. If you sand frac, it would be necessary to remove this one string of tubing or you would probably plant it there. What we would do, if we decide to work on this well would be to have a blanking tool to blank off the Tubb zone and retrieve both strings of tubing and set a retrievable bridge plug above the remaining safety joint, then we would proceed with any form of treatment we thought would help the formation; after, we would go ahead and retrieve our bridge plug and remove the sand.

MR. FISCHER: The witness may be excused.

(Witness excused.)

MR. FISCHER: Any statements to be made in this case? The case will be taken under advisement, and the hearing is adjourned.

(Whereupon the hearing was adjourned at 10:45 a.m.)

STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

I, JOHN CALVIN BEVELL, Notary Public 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 in stenotype and reduced to typewritten transcript by me; that the same is a true and correct record, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 5th day of March, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

John Calvin Bevell
NOTARY PUBLIC

My Commission Expires:

January 24, 1962

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1609, heard by me on Feb 25, 1959.

E. J. Fischer, Examiner
New Mexico Oil Conservation Commission

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO 7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name			County	Date
Warren Blinebry & Warren Tubb			Lea	1-27-59
Operator		Lease		Well No.
Continental Oil Company		Warren Unit		10
Location of Well	Unit	Section	Township	Range
	B	18	20	38

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 X

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

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Warren Blinebry	Warren Tubb
b. Top and Bottom of Pay Section (Perforations)	5805-6234	6404-6625
c. Type of production (Oil or Gas)	oil	gas
d. Method of Production (Flowing or Artificial Lift)	Flowing	

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

Yes 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.

Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.

No* 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. *

Yes d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

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

* Applicant is operator of all acreage offsetting proposed dual.

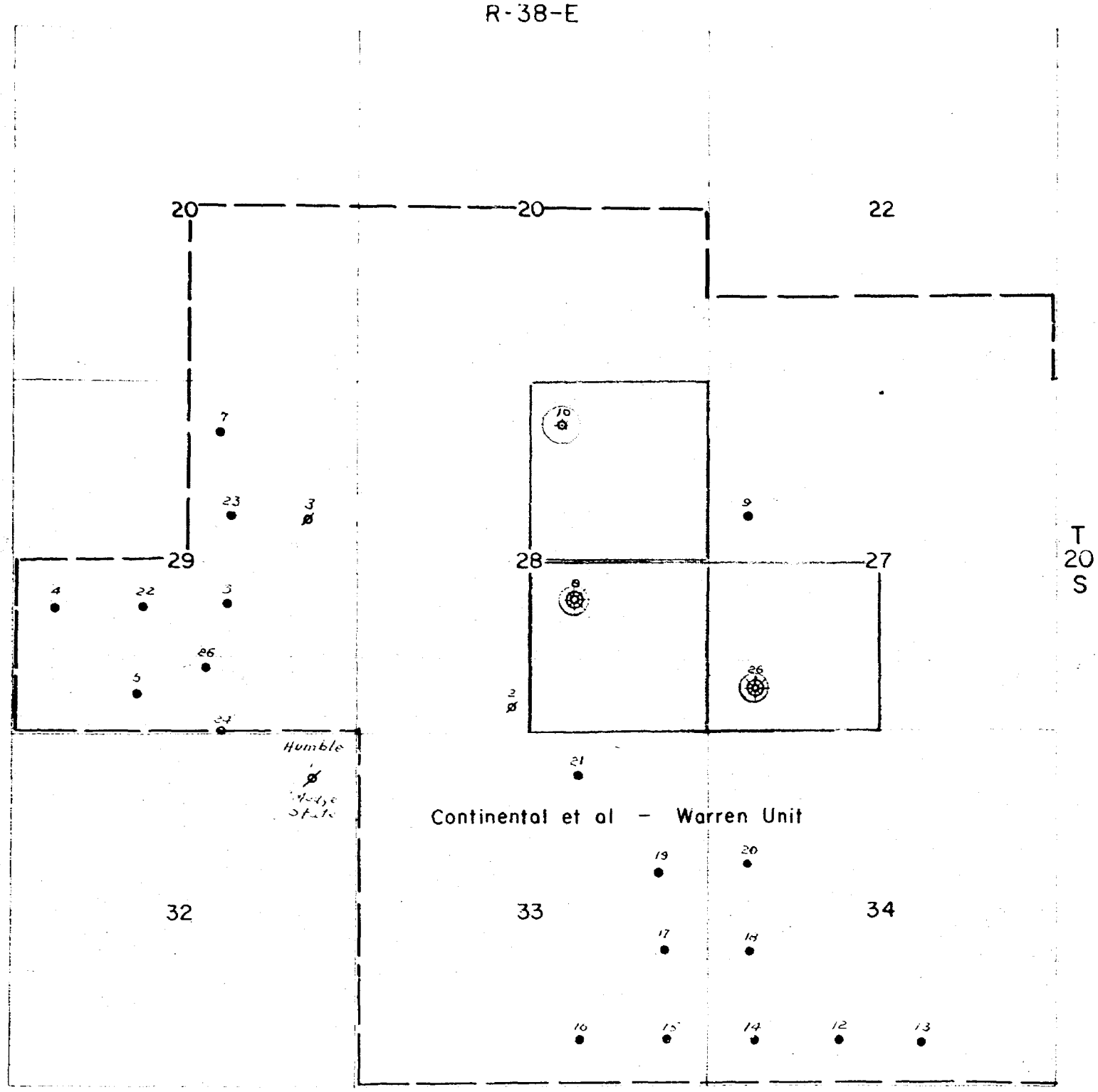
6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ___ NO X . If answer is yes, give date of such notification See above

CERTIFICATE: I, the undersigned, state that I am the Division Superintendent of Continental Oil (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.

R. L. Adams
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 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.



OWNERSHIP PLAT - WARREN UNIT AREA

SCALE: 1"=2000'

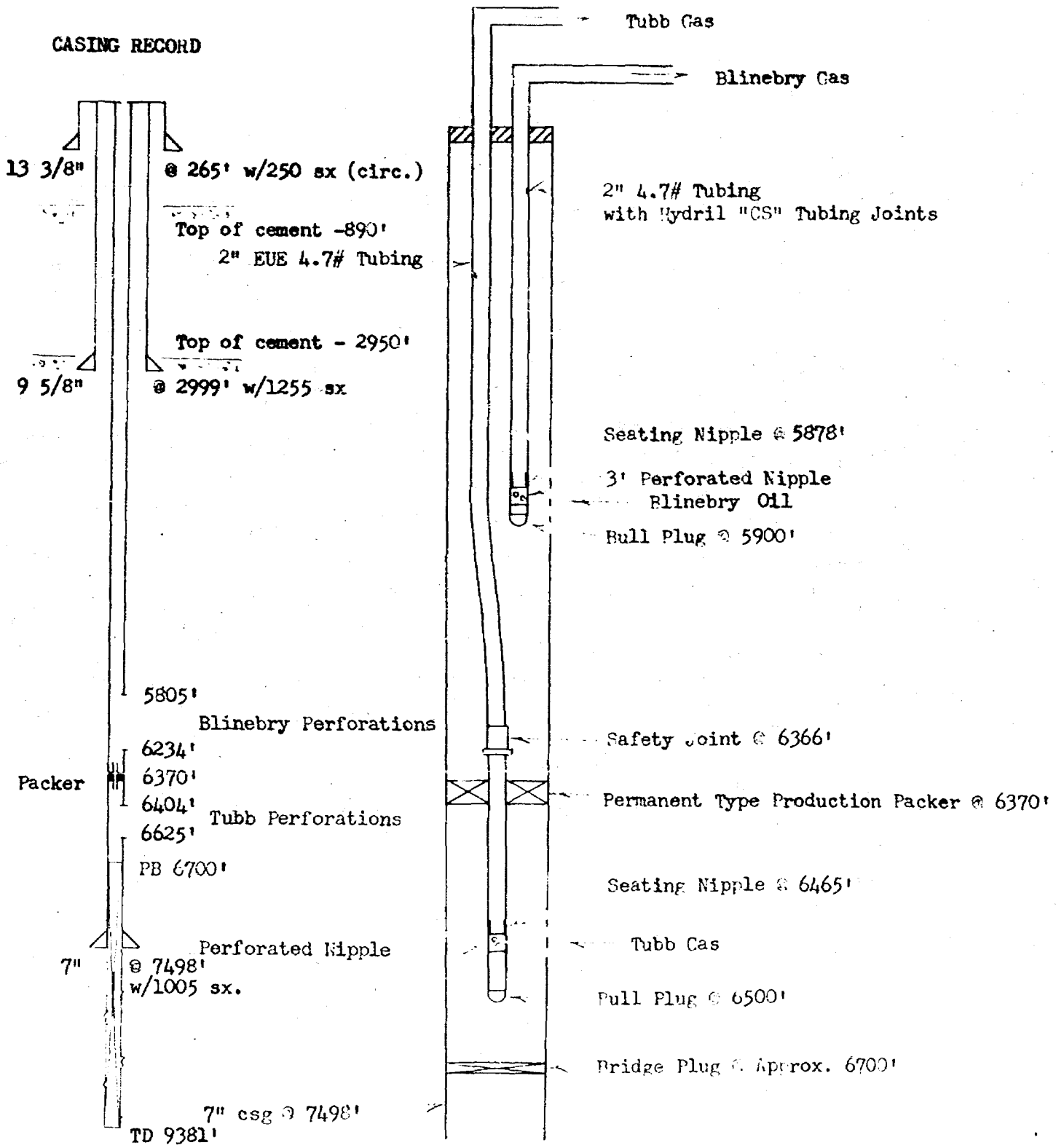
LEGEND
(Tubb Gas)

Proposed Gas Well — Offset Gas Well

Proposed Gas Unit — Offset Gas Unit

CONTINENTAL OIL COMPANY
WARREN UNIT-DRINKARD NO. 10

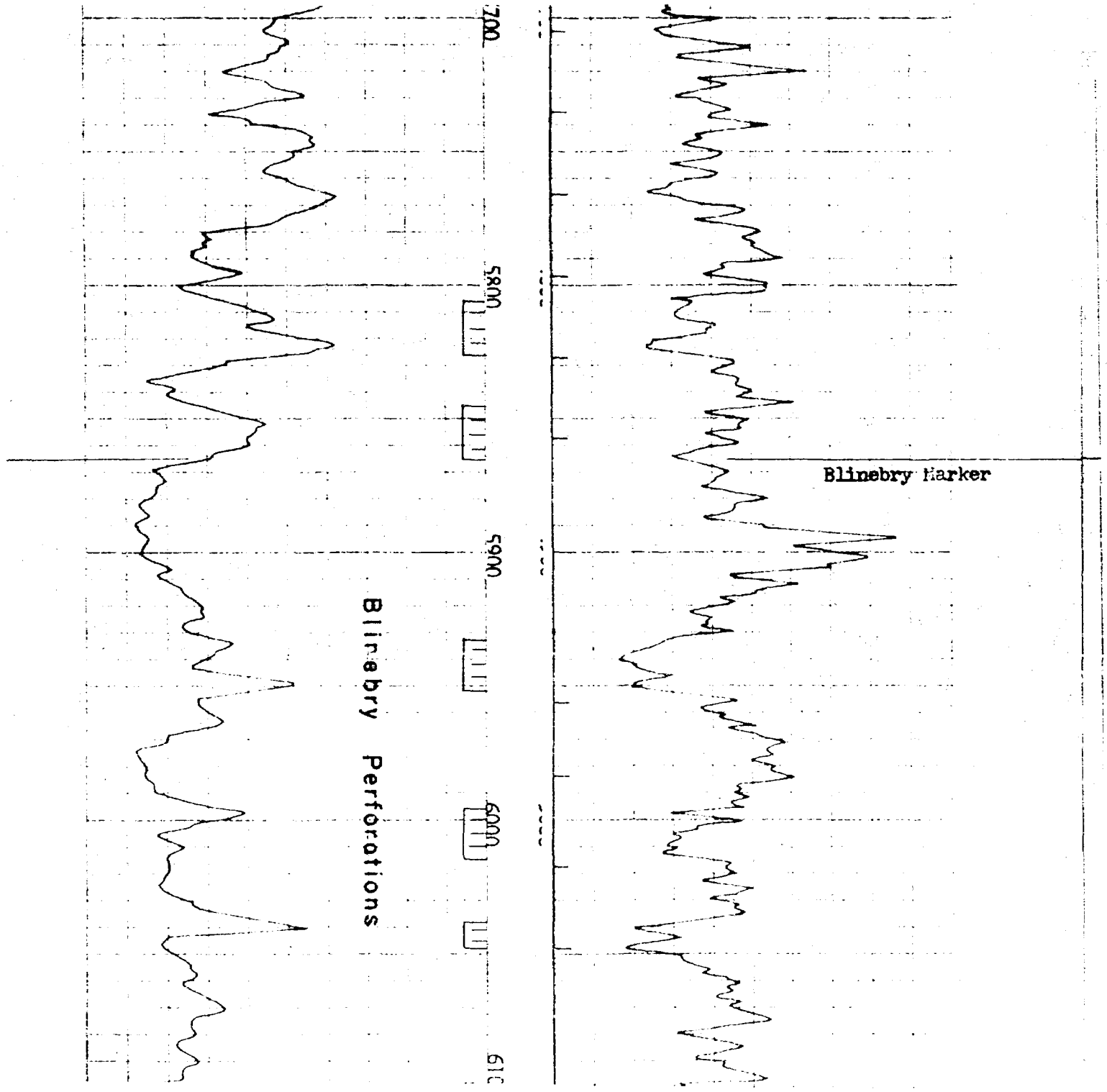
GAS-OIL DUAL COMPLETION EQUIPMENT

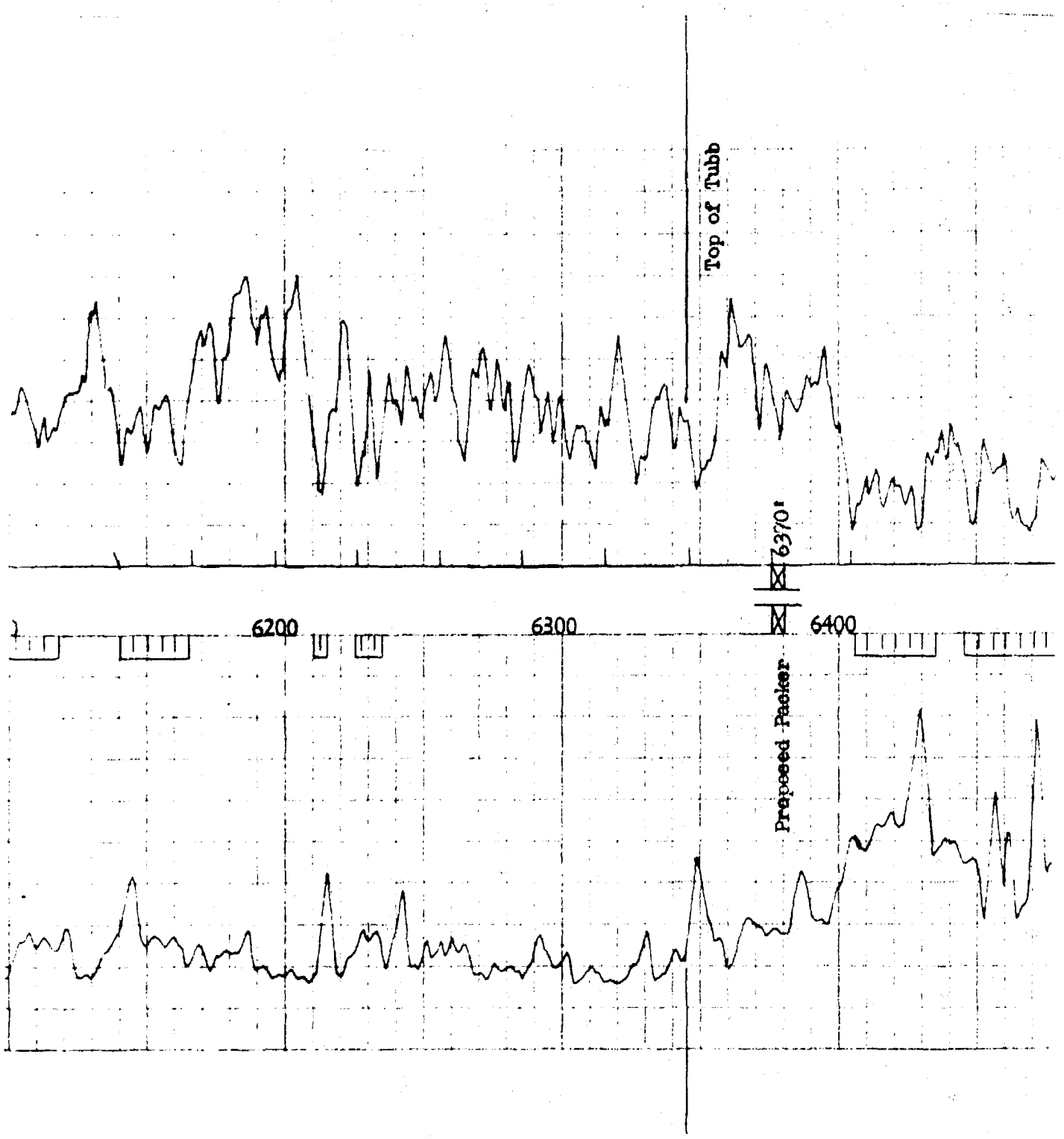


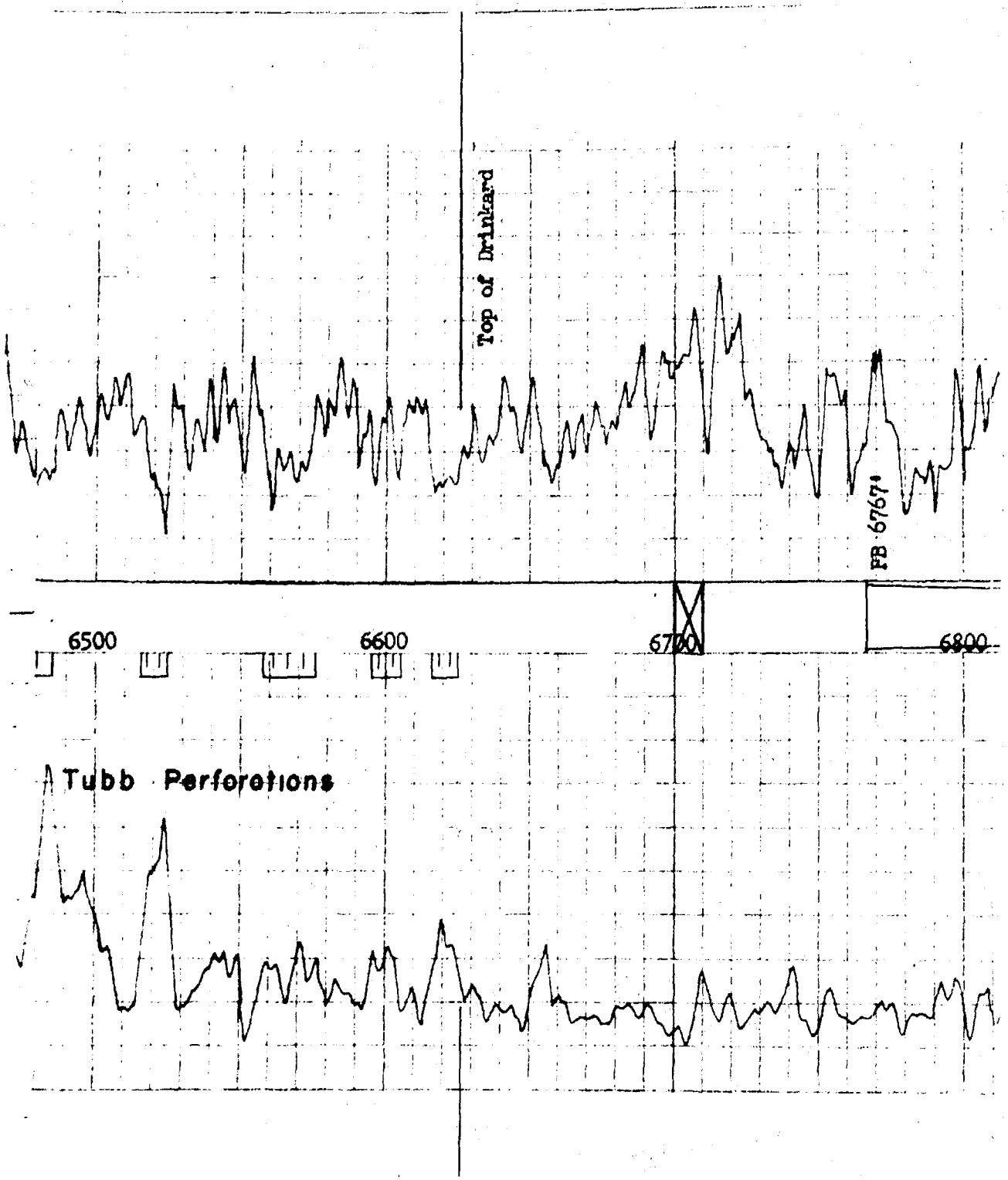
CONTINENTAL OIL COMPANY

Warren Unit Drinkard No. 10

Elev 3562'




Top of Tubb
6370'
6200
6300
6400
Proposed Packer


Top of Drinkard
FB 6767'
6500
6600
6700
6800
Tubb Perforations

This form is not to be used for reporting packer leakage tests in Northwest New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

SOUTHEAST NEW MEXICO PACKER LEAKAGE TEST

Operator	Lease	Well No.
Continental Oil Company	Warren Unit	10

Location of Well	Unit	Sec	Twp	Rge	County
	B	26	20	38	Lea

	Name of Reservoir or Pool	Type of Prod (Oil or Gas)	Method of Prod Flow, Art Lift	Prod. Medium (Tbg or Csg)	Choke Size
Upper Compl	Blinebry	Oil	Flow	Tbg.	20/64
Lower Compl	Tubb	Gas	Flow	Tbg.	12/64-14/64 16/64-20/64

FLOW TEST NO. 1

Both zones shut-in at (hour, date): 9:15 A.M., 2-6-59

	Upper Completion	Lower Completion
Well opened at (hour, date): 9:00 A.M., 2-9-59		
Indicate by (X) the zone producing		X
Pressure at beginning of test	1613	2038
Stabilized? (Yes or No)	Yes	Yes
Maximum pressure during test	1644	2076
Minimum pressure during test	1613	843
Pressure at conclusion of test	1644	843
Pressure change during test (Maximum minus Minimum)	31	1233
Was pressure change an increase or a decrease?	Incr.	Decr.

Well closed at (hour, date): 2:45 P.M., 2-10-59 Total Time On Production 29:45

Oil Production During Test: 47 bbls; Grav. 60.9; Gas Production During Test 1982 MCF; GOR 40,468

Remarks

FLOW TEST NO. 2

	Upper Completion	Lower Completion
Well opened at (hour, date): 9:45 A.M., 2-11-59		
Indicate by (X) the zone producing	X	
Pressure at beginning of test	1662	2060
Stabilized? (Yes or No)	Yes	Yes
Maximum pressure during test	1662	2060
Minimum pressure during test	211	2040
Pressure at conclusion of test	211	2060
Pressure change during test (Maximum minus Minimum)	1451	20
Was pressure change an increase or a decrease?	Decr.	Incr.

Well closed at (hour, date) 9:00 A.M., 2-12-59 Total time on Production 23:15

Oil Production During Test: 24 bbls; Grav. 34.6; Gas Production During Test 431 MCF; GOR 17,958

Remarks

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

Approved _____ 19 _____
New Mexico Oil Conservation Commission

By _____

Title _____

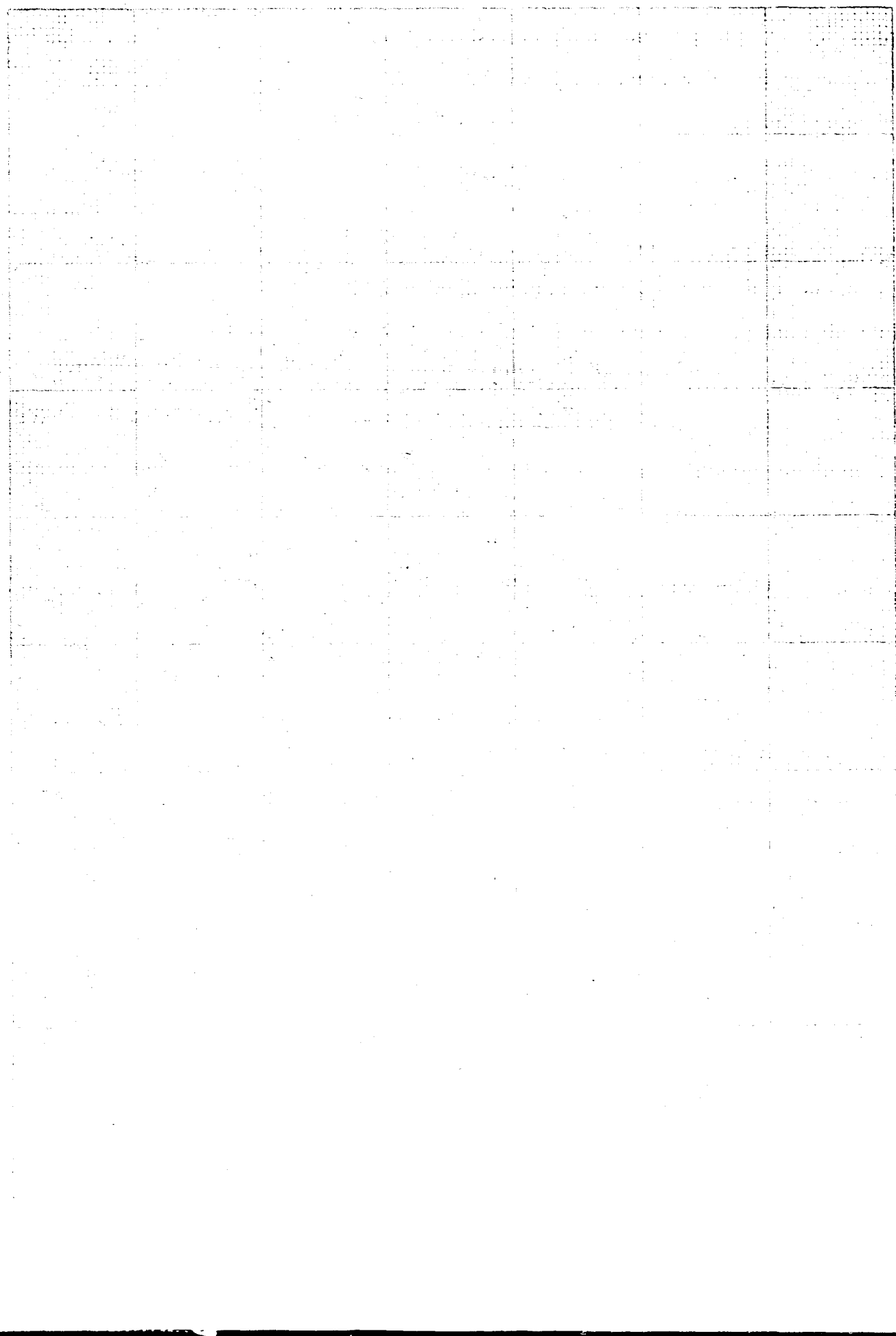
Operator Continental Oil Company

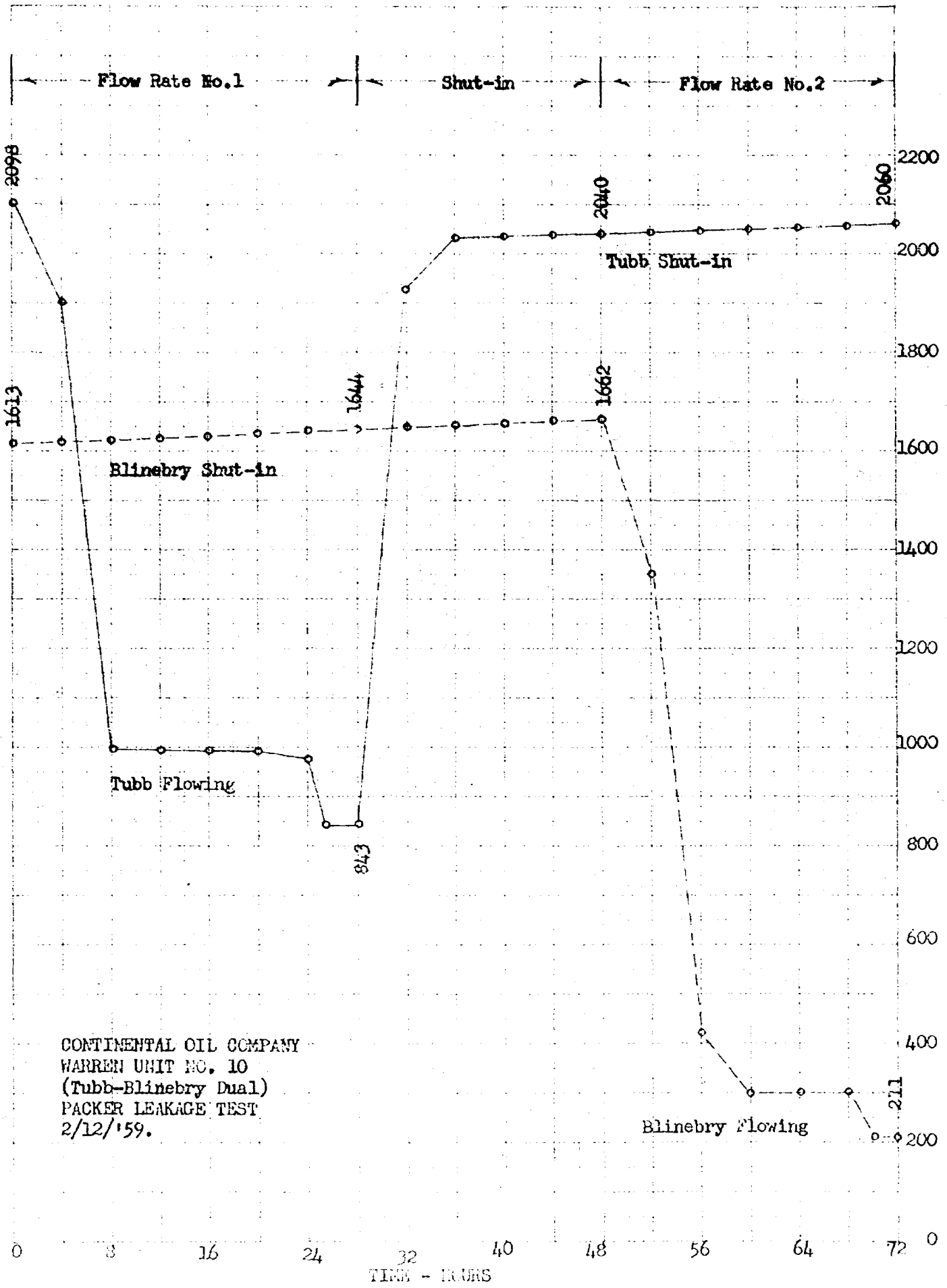
By [signature]

Title Gas Tester

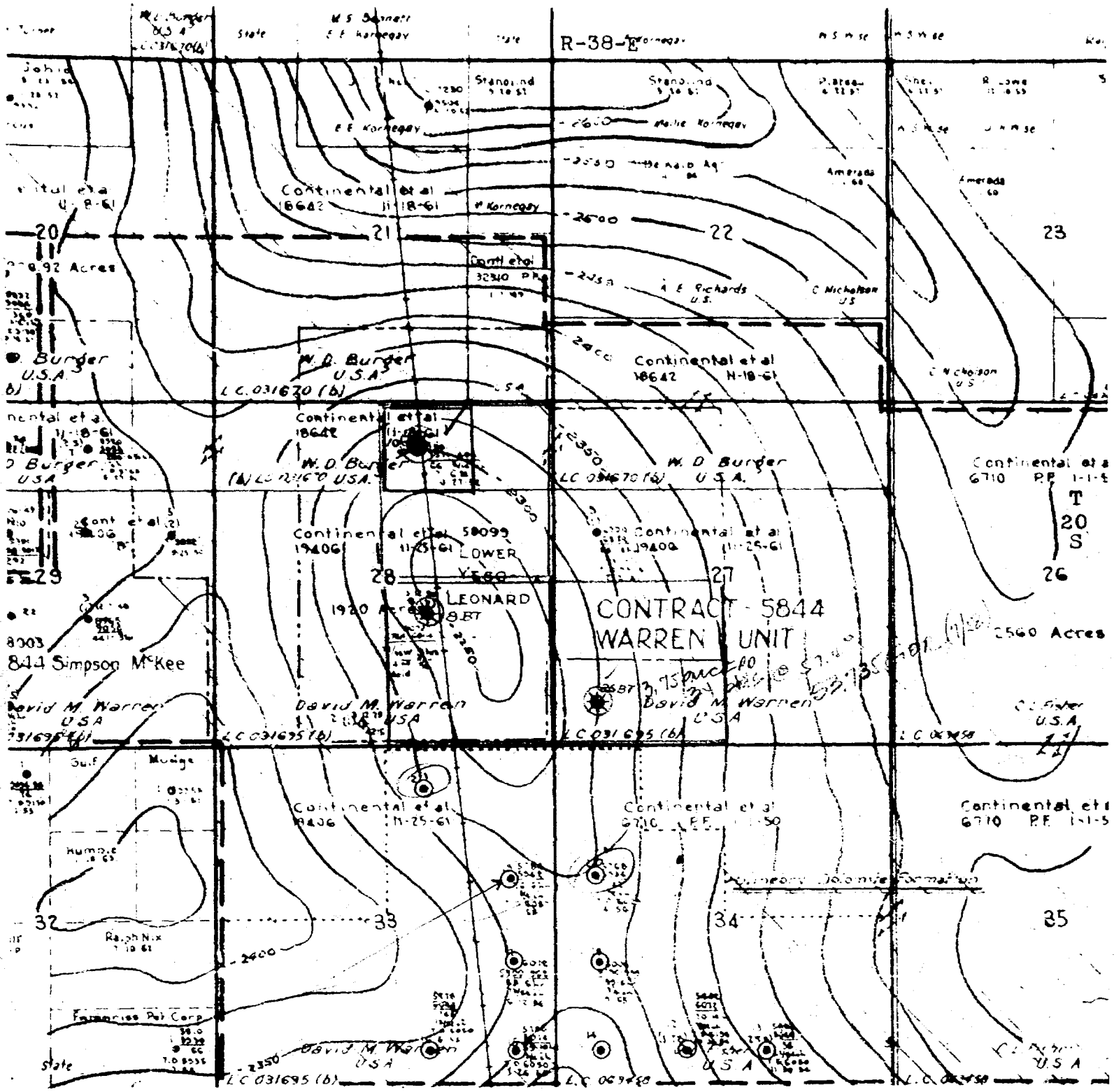
Date 2-12-59

cc: HLJ RLA [illegible] FILE RJF-7 NMOCC-2 Attach.





CONTINENTAL OIL COMPANY
WARREN UNIT NO. 10
(Tubb-Blinebry Dual)
PACKER LEAKAGE TEST
2/12/'59.



STRUCTURE MAP - BLINEBRY AREA

Contoured on Top of Blinebry Marker
Contour Int: 25' Scale: 1"=2000'

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Continental EXHIBIT No. 1
CASE 1609

Subject Gas-Oil Dual — Offset Gas-Gas Dual

Proposed Gas Unit (Tubb) ——— Offset Gas Unit (Tubb)

Blinebry Oil Well

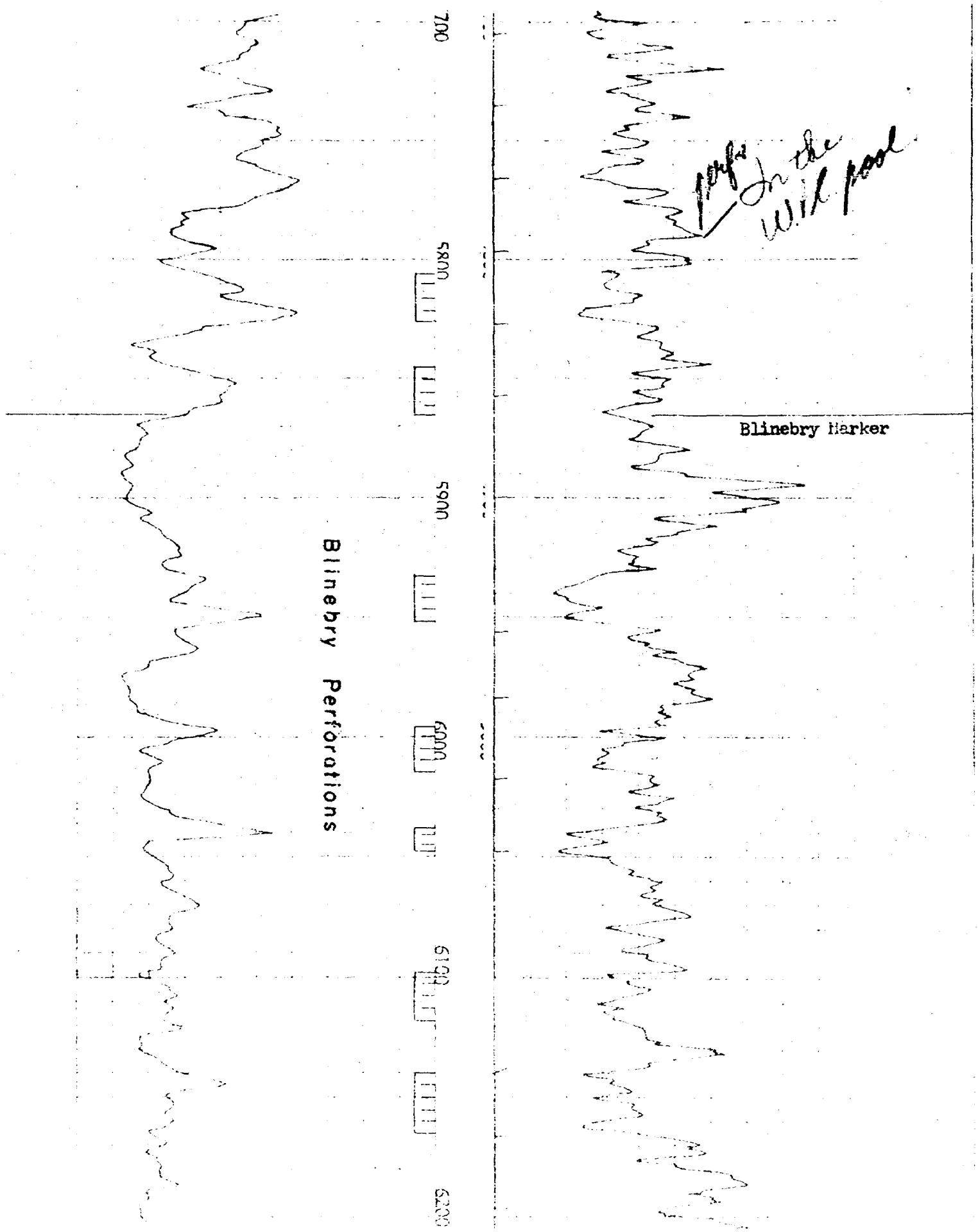
January 1959

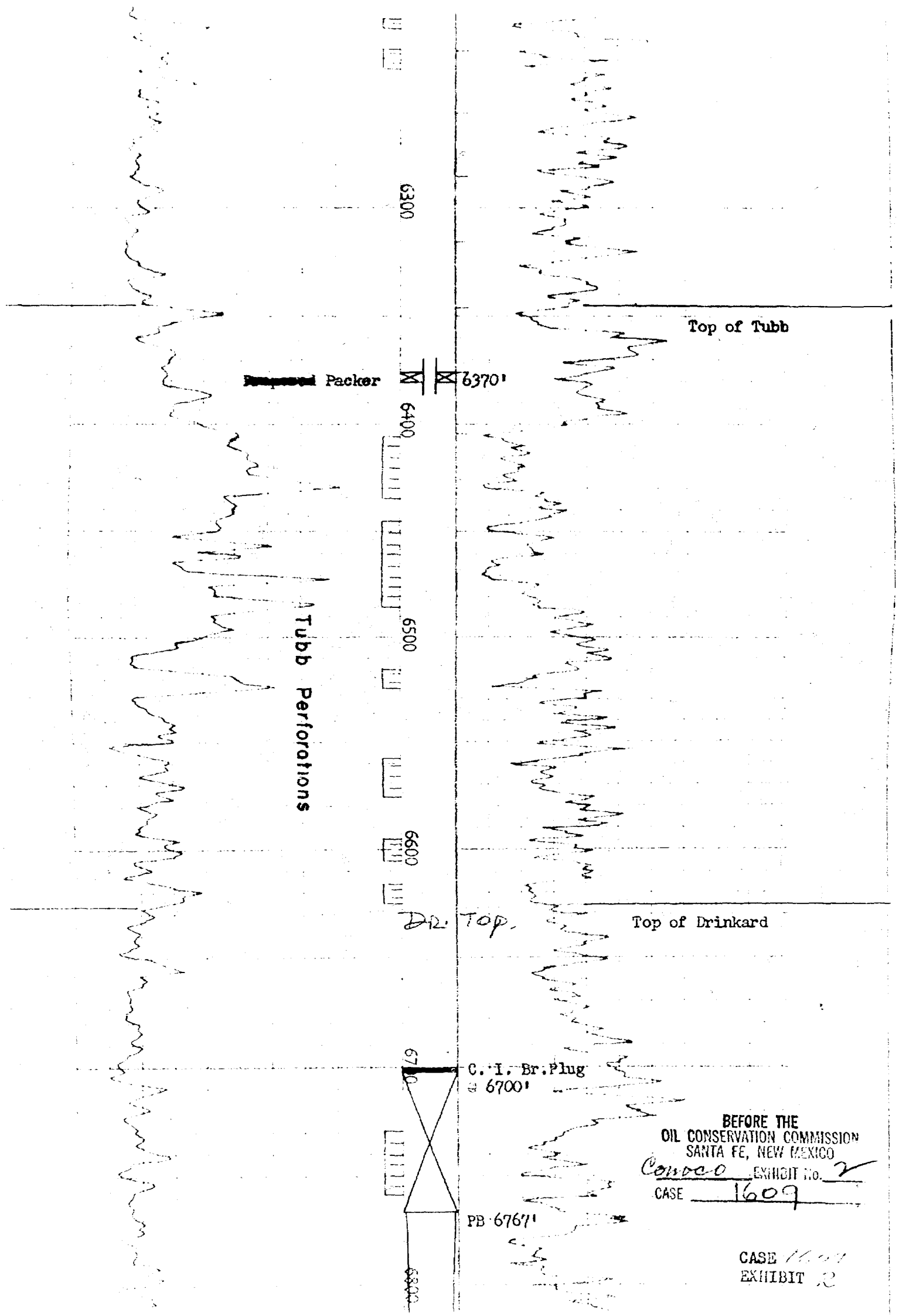
CASE 1609
EXHIBIT 1

CONTINENTAL OIL COMPANY

Warren Unit No. 10

Elev. 3562'



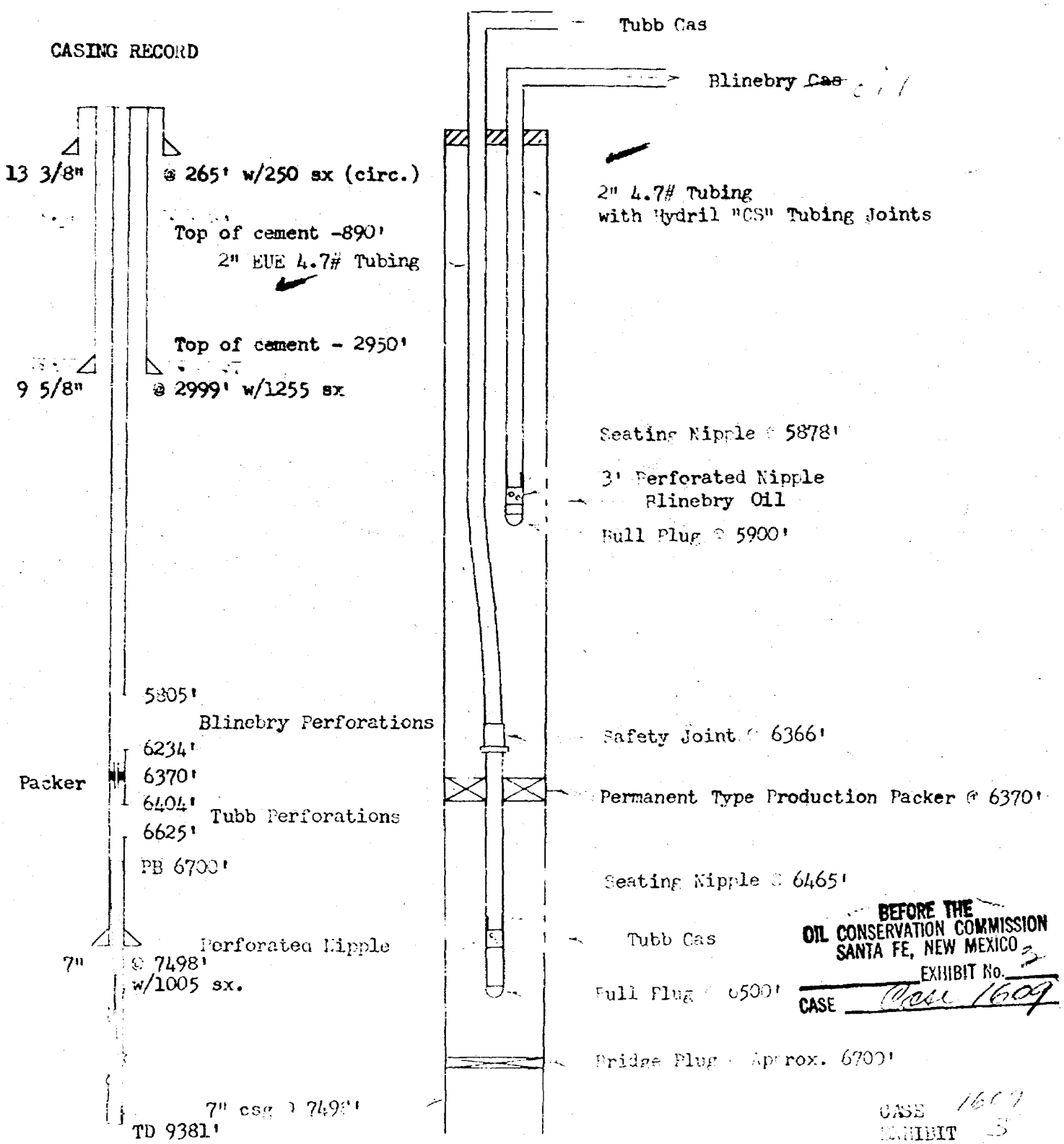


BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Conoco EXHIBIT No. 2
CASE 1609

CASE [illegible]
EXHIBIT 2

CONTINENTAL OIL COMPANY
WARREN UNIT NO. 10

GAS-OIL DUAL COMPLETION EQUIPMENT



BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 3
CASE Case 1609

CASE 1607
EXHIBIT 3

This form is not to be used for reporting packer leakage tests in Northwest New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

SOUTHEAST NEW MEXICO PACKER LEAKAGE TEST

Operator		Lease		Well No.
Continental Oil Company		[illegible] Unit		10

Location of Well	Unit	Sec	Twp	Rge	County
	B	28	20	38	Lea

	Name of Reservoir or Pool	Type of Prod (Oil or Gas)	Method of Prod Flow, Art Lift	Prod. Medium (Tbg or Csg)	Choke Size
Upper Compl	Blinebry	Oil	Flow	Tbg.	10/64
Lower Compl	Tubb	Gas	Flow	Tbg.	10/64-14/64 14/64-20/64

FLOW TEST NO. 1

Both zones shut-in at (hour, date): 9:15 A.M., 2-6-59

Well opened at (hour, date): 9:00 A.M., 2-9-59

	Upper Completion	Lower Completion
Indicate by (X) the zone producing		X
Pressure at beginning of test	1613	2098
Stabilized? (Yes or No)	Yes	Yes
Maximum pressure during test	1644	2098
Minimum pressure during test	1613	843
Pressure at conclusion of test	1644	843
Pressure change during test (Maximum minus Minimum)	31	1255
Was pressure change an increase or a decrease?	Incr.	Decr.

Well closed at (hour, date): 2:45 P.M., 2-10-59 Total Time On Production 29:45

Oil Production During Test: 47 bbls; Grav. 40.9; Gas Production During Test 1902 MCF; GOR 40,468

Remarks

FLOW TEST NO. 2

	Upper Completion	Lower Completion
Well opened at (hour, date): 9:45 A.M., 2-11-59		
Indicate by (X) the zone producing	X	
Pressure at beginning of test	1662	2240
Stabilized? (Yes or No)	Yes	Yes
Maximum pressure during test	1662	2360
Minimum pressure during test	211	2140
Pressure at conclusion of test	211	2360
Pressure change during test (Maximum minus Minimum)	1451	220
Was pressure change an increase or a decrease?	Decr.	Incr.

Well closed at (hour, date) 9:00 A.M., 2-12-59 Total time on Production 23:15

Oil Production During Test: 24 bbls; Grav. 36.6; Gas Production During Test 431 MCF; GOR 17,958

Remarks

BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO EXHIBIT No. 6 CASE 1629

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

Approved _____ 19 _____
New Mexico Oil Conservation Commission

By _____

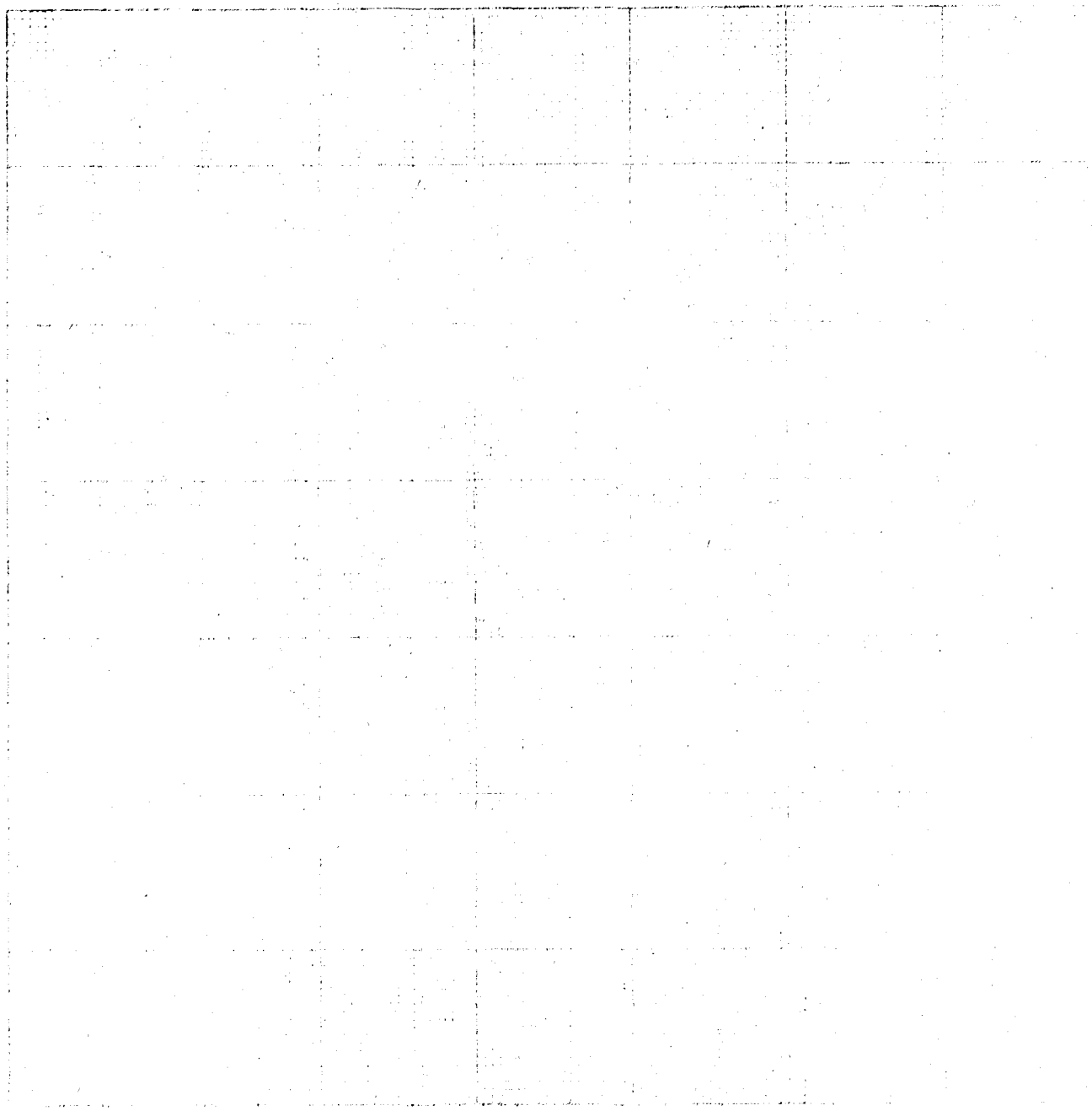
Title _____

Operator Continental Oil Company

By K. D. Howard

Title _____

Date 2-16-59



No. 7-59

DOCKET: EXAMINER HEARING FEBRUARY 25, 1959

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe

The following cases will be heard before E. J. FISCHER, Examiner:

CASE 1604: Application of Atlantic Refining Company to commingle the production from several separate oil pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Drinkard, Fusselman, Blinebry and any other pool or pools encountered in the Justis Field which produces oil of similar quality on its Carlson Federal Lease comprising the N/2 SW/4 of Section 25, Township 25 South, Range 37 East, Lea County, New Mexico. Applicant proposes to separately meter the production from each zone prior to commingling.

CASE 1605: Application of Rice Engineering and Operating, Inc. for an order authorizing a salt water disposal well on an unorthodox location. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its E-M-E SWD Well No. H-20 to be located 2475 feet from the North line and 165 feet from the East line of Section 20, Township 20 South, Range 37 East, Lea County, New Mexico. Applicant proposes to inject the produced salt water into the San Andres formation in the interval from 4450 feet to 5000 feet.

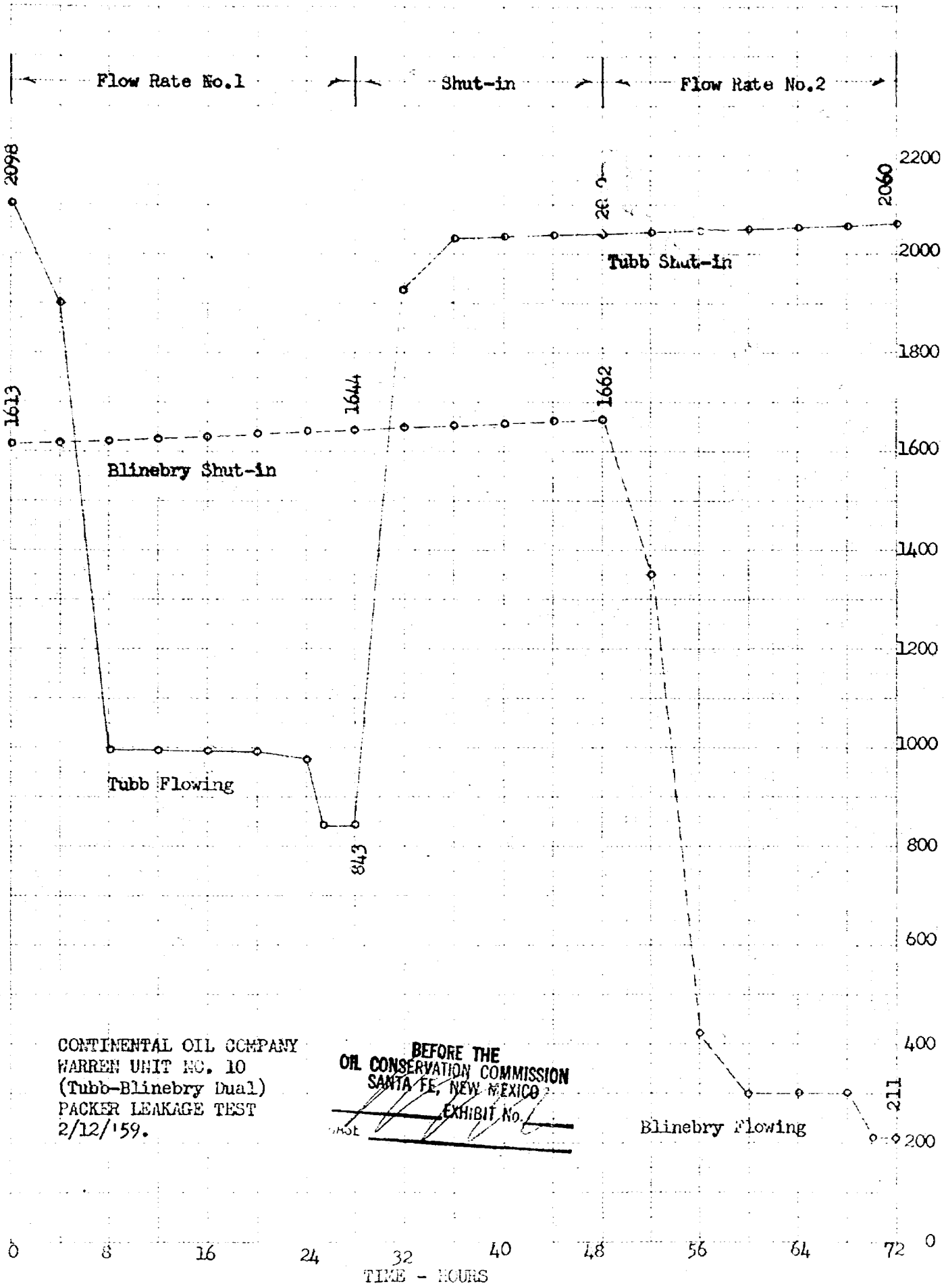
CASE 1606: Application of El Paso Natural Gas Company for an oil-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Huerfano Unit Well No. 104 located in the SE/4 SE/4 of Section 17, Township 26 North, Range 10 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from an undesignated Gallup oil pool and the production of gas from an undesignated Dakota gas pool through parallel strings of 2" tubing.

CASE 1607: Application of Standard Oil Company of Texas for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Bogle Flats Unit Agreement embracing 5,280 acres, more or less, of federal and state lands in Township 22 South, Range 23 East, Eddy County, New Mexico.

CASE 1608: Application of Nearburg & Ingram for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Square Lake Deep Unit Agreement embracing 4,317 acres, more or less, of federal lands in Townships 16 and 17 South, Range 30 East, Eddy County, New Mexico.

CASE 1609: Application of Continental Oil Company for an oil-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Warren Unit Well No. 10 located 660 feet from the North line and 2310 feet from the East line of Section 26, Township 20 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Warren-Blinebry Gas Pool and the production of gas from the Warren-Tubb Gas Pool through parallel strings of 2" tubing.

ir/



CONTINENTAL OIL COMPANY
WARREN UNIT NO. 10
(Tubb-Blinebry Dual)
PACKER LEAKAGE TEST
2/12/'59.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 1

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date Feb. 26, 1959

CASE NO. 1609 HEARING DATE Feb. 26, 1959

My recommendations for an order in the above numbered case(s) are as follows:

Recommend Approval ——

Write an order permitting Continental Oil Co. to dually complete their Warren Unit Well No. 10, located 660' FNL & 2310' FEL in Sect. 28, T 20 S, R 38 E, Lea Co. in such a manner as to permit the prod. of ~~oil~~ gas from Warren-Tubb Gas Pool and the prod. of oil from the Warren Blinebry Gas Pool through parrallel strings of 2" O.D. tbg.

Take Wkr. Leak Tests during Gas-Gas Ratio test period.

E. J. Fischer
Staff Member

No. 7-59

DOCKET: EXAMINER HEARING FEBRUARY 25, 1959

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe

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1 4000 Gallup

CASE 1609: Application of Continental Oil Company for an oil-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Warren Unit Well No. 10 located 660 feet from the North line and 2310 feet from the East line of Section 28, Township 20 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Warren-Blinebry Gas Pool and the production of gas from the Warren-Tubb Gas Pool through parallel strings of 2" tubing.

WH R. Francis
atty. Jason

ir/

No. 7-59

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ir/

CONTINENTAL OIL COMPANY

825 PETROLEUM BUILDING
ROSWELL, NEW MEXICO

R. L. ADAMS
DIVISION SUPERINTENDENT
OF PRODUCTION
NEW MEXICO DIVISION

February 3, 1959

EXAM: HEARING

New Mexico Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico

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

Re: Continental Oil Company's Application for Cancellation of Administrative Order No. DC-664 and Application for Dual Completion in the Warren Unit, Well No. 10 located in Section 28, T-20S, R-38E, N.M.P.M., Lea County, New Mexico, in the Oil Zone of the Warren-Blinebry Gas Pool and in the Warren-Tubb Gas Pool

Gentlemen:

It is requested that Administrative Order No. DC-664 for the Warren Unit Well No. 10 located 660' from the North line and 2,310' from the East line of Section 28, T-20S, R-38E, N.M.P.M., Lea County, New Mexico, be cancelled. The approval of this administrative order by the New Mexico Oil Conservation Commission allowed a dual completion in the gas zones of the Warren-Blinebry ~~Gas~~ Pool with the Warren-Tubb Gas Pool. The well was subsequently completed as an oil well in the Blinebry formation and a gas well in the Tubb formation. It is therefore proposed the subject administrative order be cancelled.

Attached is Continental's application in triplicate for the dual completion of the Warren Unit well No. 10 in the oil zone

2-11-59
Docket Mailed
EP

of the Warren-Blinebry Gas Pool and gas zone of the Warren-Tubb Gas Pool. It is proposed that this application be set for hearing at the earliest possible date.

Yours very truly,

R. L. Adams

RLA-BR
Enc

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. 1609
Order No. R-1350

APPLICATION OF CONTINENTAL OIL COMPANY
FOR AN OIL-GAS DUAL COMPLETION IN THE
WARREN-BLINEBRY GAS POOL AND THE WARREN-
TUBB GAS POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 25, 1959, at Santa Fe, New Mexico, before E. J. Fischer, 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 11th day of March, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner, E. J. Fischer, 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, Continental Oil Company, is the operator of the Warren Unit Well No. 10, located 660 feet from the North line and 2310 feet from the East line of Section 28, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico.

(3) That by Administrative Order DC-664 the applicant was authorized to dually complete the subject well as a gas-gas dual in the Warren-Blinebry Gas Pool and the Warren-Tubb Gas Pool.

(4) That the well, as subsequently completed in the Blinebry formation, is an oil well as such is defined in Order No. R-1235, Rules 17 and 18.

(5) That accordingly the applicant now seeks authorization to produce the Warren Unit Well No. 10 as an oil-gas dual completion, producing oil from the Warren-Blinebry Gas Pool and gas from the Warren-Tubb Gas Pool through parallel strings of 2-inch tubing.

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

(7) That approval of the subject application will not cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, be and the same is hereby authorized to produce its Warren Unit Well No. 10, located 660 feet from the North line and 2310 feet from the East line of Section 28, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico, as an oil-gas dual completion, producing oil from the Warren-Blinebry Gas Pool and gas from the Warren Tubb Gas Pool through parallel strings of 2-inch tubing.

PROVIDED HOWEVER, That applicant shall complete, operate, and produce said well in accordance with the provisions of Section V, Rule 112-A.

PROVIDED FURTHER, That applicant shall take packer-leakage tests upon completion and annually thereafter during the Gas-Liquid Ratio Test Period for the Warren Blinebry Gas Pool.

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.

(2) That Administrative Order DC-664 be and the same is hereby cancelled.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN DURROUGHS, Chairman

MURRAY E. MORGAN, Member

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

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

March 12, 1959

C

O

Mr. Jason Kellahin
Kellahin & Fox
P.O. Box 1713
Santa Fe, New Mexico

P

Dear Mr. Kellahin:

On behalf of your clients, we enclose two copies of Order R-1348 and Order R-1350 issued March 11, 1959, by the Oil Conservation Commission in Cases 1605 and 1609, respectively, which were both heard on February 25th at Santa Fe before an examiner.

Y

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encls.