

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
AUGUST 9, 1961

EXAMINER HEARING

IN THE MATTER OF:
CASE 2348

TRANSCRIPT OF HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, NEW MEXICO

PHONE CH 3-6691



BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
AUGUST 9, 1961

IN THE MATTER OF: -----

Application of The British-American Oil
Producing Company for an amendment of
Order No. R-1638. Applicant, in the
above-styled cause, seeks an amendment
of Order No. R-1638, which order establish- : Case 2348
ed special rules and regulations for the
operation of the West Bisti Pressure
Maintenance Project, in the Bisti-Lower
Gallup Oil Pool, San Juan County, New
Mexico, to grant top unit allowables to
inject wells in said pressure maintenance
project.

BEFORE:

Daniel S. Nutter, Examiner

EXAMINER HEARING

MR. NUTTER: Call Case 2348.

MR. MORRIS: Application of The British-American Oil
Producing Company for an amendment of Order No. R-1638.

MR. ERREBO: I am Burns H. Errebo of Albuquerque, and
the Firm of Modrall, Seymour, Sperling, Roehl & Harris, and
appearing on behalf of the Applicant The British-American Oil
Producing Company. We will have one witness.

(Witness sworn.)

(Whereupon British American's
Exhibits 1, 2, 3, marked for
identification.)

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FRANK L. LEONARD, JR.,

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

DIRECT EXAMINATION

BY MR. ERREBO:

Q State your name, please, where you live, and by whom you are employed, and in what capacity.

A Frank L. ^{Leonard} Leonard, Jr., employed by British-American Oil Producing Company as a Field Engineer at Farmington, New Mexico.

Q Mr. Leonard, do your duties with The British-American in Farmington involve any work with the West Bisti Pressure Maintenance Project, which has been heretofore authorized by order of this Commission?

A Yes, sir.

Q What is the nature of your duties in connection with that?

A Watching, the observing, the performance, and making plans for any changes necessary in operations.

Q You are the Project Engineer, you might say, then, on the project; is that correct?

A Yes, sir.

Q Have you previously testified before this Commission as an Engineer?

A Yes, sir.

Q Would you refer to your Exhibit 1 and state what is

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represented by that Exhibit?

A Exhibit 1 is a monthly report, prepared, showing the statistical data on giving production data for the West Bisti Unit.

Q That is submitted to this Commission, is that correct, each month?

A Yes, sir.

Q And that report shows production for what month?

A This particular report is for June 1961.

Q And it is used as a basis for assigning allowables for what month?

A It covers allowables for August.

Q Then, if you will refer, please, to your next Exhibit, which is No. 2, and state what that represents.

A Exhibit 2 points out the relationship between the allowable assigned to injection wells under existing field orders as compared to the producing capacity of some of the wells in excess of 140 barrels of oil per day.

Q Did you use the information on Exhibit 1 in preparing Exhibit 2?

A Yes, sir. The only exception I made there on those, in looking back over Exhibit 2 for August, the lower curve, the point I used there is not taken directly off of Exhibit 1. More recent well test data was used in preparation of Exhibit 2.

Q British-American is the operator, is it not, of the West

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Bisti-Lower Gallup Project?

A Yes, sir.

Q And how many wells are there now producing in this project?

A There are now 45 producing wells and 16 injection wells.

Q How many of the 45 producing wells will now make in excess of the top unit allowable?

A I believe that is 9.

Q Now, will you refer to your Exhibit 3 and state what that shows?

A Exhibit 3 is a performance curve showing monthly oil production, total fluid production, gas-oil ratio, and water injection by the West Bisti Unit.

Q Is there anything in particular that you desire to call the Examiner's attention to in connection with that Exhibit?

A Well, since April of 1961, the production has shown an overall increase. By "overall", I mean some of the wells are showing an increase in production, whereas some of the producing wells are still on primary decline. Some of the wells have not yet been effected by water injections.

Q When did you commence your injection program?

A There were two separate phases. We had a barrier project with the Central Bisti Unit. We had started injecting water in August of 1959. The full-scale pressure maintenance program started in October of 1960.



Q That is when your water injection curve shoots unusually high?

A That's right.

Q That is also shown by the lower curve on Exhibit 2. That is the taking effect, really, of the water injection program?

A Yes, sir; it starting more noticeably in May, we start showing requirements for high transfer allowable.

Q Have you calculated approximately what additional allowable could be granted were the Commission to grant your Application today for the project?

A The current allowable which can be transferred from injection wells is 108 barrels of oil per day. That is based on special tests which were taken on injection wells prior to conversion. We are now asking for top unit allowables for all wells which have been converted to injection wells based on a top unit allowable of 140 barrels per day, or 14 injection wells. This would give allowable for transfer of 240 barrels per day as compared to 998 barrels per day under present rules.

Q Do you feel, or do you anticipate that based upon your present rate of increase in production that you will have the need for this additional allowable in the near future?

A Yes, sir. We anticipate need in the very near future. As shown for August, there, our transfer requirements are only approximately 100 barrels below what we have available for transfer.



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Q Are you familiar with Order No. R-1636 which was issued on March 24, 1960 by the Commission, in connection with the Sunray Bisti Project?

A Yes, sir.

Q And does that order provide for a top unit allowable for injection wells?

A I believe Order R-1636 did not. There has been a revision, but Order R-1636A for the Central Bisti Unit does allow top unit allowable for all wells which have been converted to injection wells.

Q The Central Bisti Unit, of course, is immediately to the east of this project?

A Yes, sir; it is adjacent to the east.

Q Are you familiar with any other pressure maintenance projects which have been approved by the Commission since this time that had granted a top unit allowable for injection wells such as you are asking for here?

A I didn't know that they have been granted. I am familiar with the order number covering such allowable provisions.

Q And then all you are asking here today of the Commission is that they grant you an injection well allowable on the same basis that other recent projects have been granted allowables?

A Yes, sir.

Q Do you then suggest modification of Order No. R-1638 as to any particular rules?



A The rule directly in question is Rule 5, Special Rule No. 5.

Q That would also involve, probably, Rule 4; would it not?

A Yes, sir. It would require a moderate amount of modification of Rule 4.

Q You don't have any specific wording that you propose to the Commission today, do you, with regard to change in those rules?

A I do not have definite wording.

Q Would you suggest that they be somewhat in line with the Sunray Order No. R-1636A?

A Yes, sir. I believe after that Rule 5 change, I believe the Order No. R-1636A from Rule 6 on through would be the wording required for the West Bisti Unit.

Q Since the Order of the Commission sets definite sales on the amount of oil that can be produced, do you feel that the increase in production from this unit, which you are now experiencing, can be kept within such allowable as might result from the modification which you are asking for here today?

A Yes. I believe topping that allowable for all injection wells would fulfill the requirements.

Q Do you have anything further to offer at this time?

A No, sir.

MR. ERREBO: I believe that is all we have, Mr. Nutter.



Q (By Mr. Nutter) Mr. Leonard, as I understand it, you have 16 wells on injection?

A Yes, sir.

Q And the total allowable which is available for those 16 wells is 998 barrels --

A That is correct.

Q -- which is reflected by the horizontal line on Exhibit 2?

A Yes, sir.

Q Now, what do you mean by the other line, the barrels per day required for transfer?

A Going back to Exhibit 1, using, for example, using Well 7 as shown in column 6, has a capacity of 183 barrels per day, top unit allowable of 140 barrels. We have 43 barrels excess capacity above the top unit allowable, but we need allowable to assign to bring that so we can produce that well to the 183 barrels, as reflected by the well test. The 998 barrels is the total of such capacity above 140 barrels per day for all the other wells in the unit.

Q In other words, this lower line on Exhibit 2 represents the producing capacity of those producing wells which have received a response?

A It represents their producing capacity above top allowable; yes, sir.

Q And you expect for this line to intersect and pass the



horizontal line in the near future?

A Yes, sir.

Q Now, on Exhibit 3, for total fluid production in the last several months, I note two lines there. It was the second of the two lines.

A Well, the dashed line, the upper line of the two is a total fluid production, whereas the other line is oil production. At the time the curve was first prepared, there was very little water production. That is the reason there is just one line back to the certain point, there.

Q I see. And, the difference between the two lines is the water that is produced --

A Yes, sir.

Q -- of your injection of your ultimate injection well pattern? How many of the wells have been put on? Does this 16 represent all of them?

A That represents everything that we plan to convert under present, from what we know about the project so far.

Q So far as you can tell at this time, the 998 barrels would be the maximum that you will be able to receive?

A Yes, sir. I would point out that the reason for the change between July and August, there, on the upper curve of the Exhibit, we did convert one more well, but that is the last of the wells to be converted under present plans.

MR. NUTTER: Are there any further questions of Mr.

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Leonard? He may be excused.

MR. ERREBO: I would like to offer, if I might, Exhibits 1, 2, and 3 in evidence at this time.

MR. NUTTER: British-American's Exhibits 1, 2, and 3 will be entered into evidence.

(Whereupon British-American's Exhibits 1, 2, 3 received in evidence.)

MR. NUTTER: Have you anything further?

MR. ERREBO: Nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2348? We will take the case under advisement and recess the Hearing until 1:15 P.M.

(Whereupon the Hearing of Case 2348 was concluded.)

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STATE OF NEW MEXICO)
) ss.
 COUNTY OF BERNALILLO)

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

IN WITNESS WHEREOF, I have affixed my hand and notary seal this 9th day of August, 1961.

Michael P. Hall
 Court Reporter - Notary Public

My Commission expires:

June 20, 1965.

I do hereby certify that the foregoing is
 a complete and correct transcript of the proceedings in
 the Examiner hearing of Case No. 2348
 heard by me on 8/9, 1961.

[Signature], Examiner
 New Mexico Oil Conservation Commission

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