

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 30, 1974

EXAMINER HEARING

IN THE MATTER OF:

Application of Depco, Inc. for
a unit agreement, Eddy County,
New Mexico.

Case No. 5161

Application of Depco, Inc. for
a waterflood project, Eddy
County, New Mexico.

Case No. 5144

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil
Conservation Commission:

William Carr, Esq.
Legal Counsel for the Com-
mission
State Land Office Building
Santa Fe, New Mexico

For the Applicant:

Ken Bateman, Esq.
WHITE, KOCH, KELLY & McCARTHY
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MR. NUTTER: Call Case 5161.

MR. CARR: Case 5161. Application of Depco, Inc. for a unit agreement, Eddy County, New Mexico.

MR. NUTTER: I presume Case 5144 is a companion case of Case 5161.

MR. BATEMAN: Yes, sir, right.

MR. NUTTER: We will also call at this time, Case No. 5144.

MR. CARR: Case 5144, continued and readvertised. Application of Depco, Inc for a waterflood project, Eddy County, New Mexico.

MR. NUTTER: Do you want them consolidated?

MR. BATEMAN: Yes, please.

MR. NUTTER: Cases Nos. 5161 and 5144 will be consolidated for purpose of Hearing.

MR. BATEMAN: Mr. Examiner, I'm Ken Bateman with White, Koch, Kelly and McCarthy. I have one witness and ask that he be sworn.

(Witness sworn.)

WILTON SMITH

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

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DIRECT EXAMINATION

BY MR. BATEMAN:

Q State your full name, place of residence and place of employment, please?

A Wilton Smith, Odessa, Texas; Depco, Incorporated.

Q Have you previously testified before the Commission?

A No, I have not.

Q Would you briefly state your educational qualifications and work experience?

A I received my BS degree in Petroleum Engineering from Texas Technological University in 1961, and commenced work with Amoco Production Company for approximately five years doing production and reservoir engineering work, and in December of '69 I was employed by Depco, Incorporated as District Engineer handling eastern New Mexico and the Texas District. I have presently held this capacity for about four years, again, doing production and reservoir engineering work.

I'm a registered professional engineer in the State of Texas.

Q Mr. Smith, are you familiar with the area in question in these two applications?

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A Yes, sir.

MR. BATEMAN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

BY MR. BATEMAN:

Q Mr. Smith, would you refer to what we've marked as Exhibit No. 1, map of the project area, and briefly describe the area involved in both the waterflood and the unit area?

A This proposed unit is approximately 15 to 20 miles southeast of the City of Artesia, New Mexico. This is a map showing the specific area. The proposed unit boundary is shown by the yellow outline. The proposed injection wells are shown by the blue triangles. This area is located in Sections 29, 31 and 32 of Township 17, Range 28, and, also, 40 acres in Section 6 of Township 18, Range 28.

Q What's the total acreage involved?

A The total acreage is approximately 640 acres.

Q The wells within the unit area indicated with a circle are what; would you explain that?

A Those are Abo producers.

Q They are not involved in your Application?

A They are not involved in our application.

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Q Are there other waterflood projects in the immediate area?

A Yes, there are. The Artesia Unit which is immediately east of the area we're proposing is operated by Depco. Immediately north is a Red Lake Unit operated by Kersey and Company. Immediately to the west is the South Red Lake Unit operated by Birdley and to the south is a small unit, the West Artesia Unit, operated by H and S Oil Company, and then to the southeast is the Lever State Waterflood Project which is operated by the American Petrofina Oil Company. All of these operations are a Grayburg Waterflood Project.

Q Describe briefly, then, the proposed waterflood project.

A We propose to inject water into the wells as shown by the blue triangles on Exhibit 1. Due to the configuration of this unit we have proposed a partial five-spot injection pattern. We plan to put approximately 300 barrels of water per day at about 1,500 pounds into these seven wells.

The major working interest owners in this unit are Depco, Yates Petroleum Corporation, Husky Oil Company and Kersey Oil Company.

Q Have all the working interest owners and the royalty owners been notified of your proposal?

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A They have been notified.

Q As I understand it, the proposed injection wells are all existing wells of the -- no new well is drilled?

A That's correct.

Q Are logs of the proposed injection wells available?

A Logs on six of the seven proposed injection wells are available and they are included as Exhibit 2.

Q Now, which of the wells has not been logged?

A The Kirby Ramapo Well No. 2 has not had a log obtained on it.

Q Would you identify that, then, on Exhibit 1?

A It's in Unit "P" of Section 32, Township 17, Range 28.

Q Do you intend to obtain a log of that well?

A Yes, we plan to prior to commencing injecting in the well.

Q Exhibit No. 2 is then the logs of the six wells that you have at the current time?

A That's correct.

Q Would you then briefly describe what is included in the logs of Exhibit 2?

A With the logs we have shown the top of the Queen, the Grayburg and San Andres Zones. Also, the Premier Section,

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we feel the major or the main producing zone in this area.

Q Do you propose to submit the log of the Ramapo "A" Well No. 2 -- Well No. 2, excuse me -- when it is available to the Commission?

A Yes, we will.

Q Would you refer then to Exhibit No. 3, which is marked as diagramatic sketches and describe the typical completion of an injection well?

A Typical completion will have approximately 500 feet of surface pipe, in most cases cement has been circulated. Have a full string of production pipe set to T.D. perforated in the Premier zone and we will install internally plastic-coated tubing and plastic-coated packer. We plan to fill this tubing casing annulus with inhibited water.

Q Mr. Smith, the last diagramatic sketch is a sketch of the Ramapo "A" Well No. 2; is that correct?

A That's right.

Q Will additional work have to be done on that well?

A We plan to, prior to commencing any injection into this well, to set a full string of four-and-a-half inch pipe and submit it with sufficient cement volume to bring it back to surface, then, perforate the Premier zone after obtaining a log and complete it similar to what I have described for

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the other injection wells.

Q Do you expect to be able to inject proposed volume of water in all of these wells?

A Yes.

Q Proceed with Exhibit No. 4. Describe the cumulative production that has been obtained from this area.

A Cumulative production obtained in this area ranges between 6,000 and 32,000 plus barrels of oil as of September 1, 1973.

Q What do you expect to be the secondary recovery total?

A We expect to recover an additional 342,000 barrels of oil from operations of waterflooding this area.

Q What's the current production?

A The current production averages 1.7 barrels of oil per well and ranges between one-half barrel and three barrels of oil per day, indicating that most of these wells are in a stripper stage. The remaining primary, as of September 1, '73, was indicated to be approximately 22,000 barrels of oil, which would mean that we were 93 percent depleted in this reservoir.

Q What kind of water do you propose to inject?

A We plan to purchase water from local water companies operating in this area, probably from Double Eagle Corporation

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out of Roswell, New Mexico. They obtain their water from Ogalala water source in Eddy County. We're using this water in various other floods in this immediate vicinity of this particular proposed unit.

Q Exhibit No. 5, then, is the water analysis of the water that you expect to use in this project?

A That's right.

Q Do you expect any problems with corrosion?

A No, we do not.

Q What kind of leases are involved in this proposed unit area?

A All of these leases are State leases.

Q Have the proposed unit operating agreements been submitted to the State Land Office?

A It has been submitted to the State Land Office and they have approved it as to form and content.

Q Describe briefly, then, the contents of the unit agreement?

A This is more or less a standard-type unit agreement which has been submitted to all the working interest and royalty interest owners.

Q Unit Agreement is Exhibit 6; is that correct?

A Yes, I believe that is right.

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Q What percentage of working interest and royalty has signed or do you expect?

A The total overall presently, we have 68.85 percent of working interest in the unit signed. We have verbal agreement with another 25.44 percent, which brings the total unit working interest signed-up approval to approximately 93.45 percent.

Q How about the royalty?

A That will vary from tract to tract. Referring to Exhibit "B" in unit agreement.

Q Okay. Exhibit "B" to our Exhibit No. 6?

A Right.

Q The total working interest in Tract 1 has been -- has been signed on that particular lease or verbal agreement to. The Yates Brothers overriding royalty have verbally approved it. We have not heard from Hondo Oil and Gas.

In Tract 2, all of the working interest has signed except Donahue Estate and Copas and Warren, which is approximately 28 percent working interest in that particular tract. 98 percent of the overriding royalty has been signed for Tract 2. The only ones that have not signed are Nelson and Nelson accounts.

Tract 3, working interest would be exactly the same

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as Tract 2 and we have neither Tenneco or Continental overriding royalty signed.

Q Do you expect to get their signatures?

A Yes, we see no reason they wouldn't sign.

Q Exhibit No. 7, then, is the proposed unit operating agreement?

A Yes, it is.

Q I believe you testified that's also been submitted to the State Land Office?

A Yes, it has.

Q Have Exhibits 1 through 7 been prepared by you or under your direction?

A Yes, they have.

Q Your Application of both of these cases, if approved, do you expect it to prevent waste and protect the correlative rights?

A Yes, we do.

MR. BATEMAN: No further questions of this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Smith, what happened to Burham here?

A He chose not to join, sir.

Q So you had to leave a window right in the middle of

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the unit?

A Yes, sir, we sure did. He has two producing wells there which are very good. We would have preferred to have Mr. Burham come in, but he decided that he didn't wish to.

Q I see. Now, the Ramapo No. 2 that you mentioned, that you are running a string of pipe in, is that not a producing well at the present time?

A Yes, sir, it is a producing well at the present time.

Q But you want to re-case it?

A Yes, sir, in order to inject water and control it into the zone injection -- into the formation that we would like to put the water into.

Q Now, I noticed on most of these it appears the water is going to go into the Premier, down into the lower Grayburg; will the San Andres be flooded at all?

A No, sir, it won't.

Q It's all Grayburg?

A Yes, sir.

Q And the Queen is indicated on the log of these wells, too. There won't be any Queen flooding or production?

A Initially, there will not be. As we progress, we might, you know, decide to go and complete in the Queen.

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It is a part of the unitized interval, the Queen Zone.

Q And it is a part of the Artesia Pool?

A Yes, sir, I believe that's right.

MR. NUTTER: Are there further questions of Mr. Smith? You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Bateman?

MR. BATEMAN: No, thank you.

I offer Exhibits 1 through 7.

MR. NUTTER: Applicant's Exhibits 1 through 7 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1 through 7 were admitted in evidence.)

MR. NUTTER: Does anyone have anything they wish to offer in Cases 5161 and 5144? We'll take the cases under advisement and recess the Hearing until 1:30.

STATE OF NEW MEXICO)
)
COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

RICHARD L. NYE, Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5144-5161
 Signed by me on 1-30, 1974

W. J. [Signature], Examiner
New Mexico Oil Conservation Commission

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