STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
28 September 1983
EXAMINER HEARING

IN THE MATTER OF:

Application of Sun Exploration and Production Company for an unorthodox oil well location, Lea County, New Mexico. CASE 7963

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: W. Thomas Kellahin, Esq.
KELLAHIN & KELLAHIN
P. O. Box 2245
Santa Fe, New Mexico 87501

I N D E X

E X H I B I T S

MR. STOGNER: The hearing will come to order.

We'll call first this morning Case Number 7963.

MR. PEARCE: That case is on the application of Sun Exploration and Production Company for an unorthodox oil well location, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of the applicant, and I have one witness to be sworn.

MR. PEARCE: Are there other appearances in this matter?

(Witness sworn.)

MR. KELLAHIN: Mr. Examiner, we would request a change in the proposed location of the well that will require the case to be readvertised.

I have already notified the Commission secretary of that change and I think it will appear in time to be advertised for the October 12th docket.

The change is so that the location will be 1260 feet from the north line and 1310 feet from the west line.

MR. STOGNER: You do plan to go

ahead and put on testimony today?

MR. KELLAHIN: We would like to with your permission.

MR. STOGNER: Please do.

NAT SUBRAMANIAM,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHN:

Q All right, sir, would you please state your name and occupation?

A My name is Naturajan Subramaniam. I'm a geologist with Sun Exploration and Production Company in Dallas, Texas.

Q Mr. Subramaniam, have you previously testified as a geologist for Sun Exploration and Production Company?

A Yes.

Q And have your qualifications as a geologist been accepted and made a matter of record with the Commission?

A Yes.

Q And pursuant to this application have you prepared certain geologic studies in support of your request?

A Yes.

MR. KELLAHIN: We tender Mr. Subramaniam as an expert petroleum geologist.

MR. STOGNER: He is so qualified.

Q Mr. Subramaniam, would you identify what we have marked as Sun's Exhibit Number One and locate for us the proposed unorthodox location for this well?

A The Exhibit Number One depicts parts of Lea County, Township 23 South, Range 36 East. The said well is in the northwest quarter of Section 10 in Township 23 South, Range 36 East, marked 116.

Q Section 10 is a State of New Mexico lease that's held by Sun Exploration and Production Company?

A That's correct.

Q The wells immediately offsetting the proposed unorthodox location produce from what formation?

A From the Queen formation, in the Langlie Mattix Field.

Q Each of the offset 40-acre proration units in the northwest quarter of Section 10 are dedicated to the Langlie Mattix.

A Yes, that is correct.

Q All right, sir. What is the reason you have proposed the location for this Abo test as you have done?

A The test is a geological prospect based

upon studies which Exhibit Number One and Exhibit Number Two and Exhibit Number Three will further testify to.

The reason we want to test this is based on a knowledge of a producing Abo Reef well thirty miles north of there and here we have reason -- causes to believe that we are in a reef trend, possible reef trend.

Q There are no other Abo producing wells in the immediate area, are there, Mr. Subramaniam?

A No.

Q And the closest producing Abo well is some thirty miles away.

A Yes. A reef, Abo Reef well.

Q Yes, sir. What would be the proration unit to be assigned to the proposed unorthodox Abo well?

A It would be the northwest quarter of the northwest quarter of Section 10.

Q All right, sir.

A Township 23 South, Range 36 East.

Q Apart from the geologic reasons for your location that we'll discuss in a moment, are there any other reasons to locate this well as you've proposed?

A Yes. The reason we would like to locate this well is not only to test the Abo, in which case, if this Abo fails, we would like to use the same location in the -- for the waterflood of the Queen or the Langlie Mattix, which had not been applied for yet, but it is the process of being studied.

Q If the Abo attempt is unsuccessful, then it allows you to maintain a wellbore to recomplete as a waterflood in the Langlie Mattix.

A That would be correct.

Q All right, sir, and that would be the optimum location for an injection well to flood the northwest quarter of this section.

A That would be correct.

Q All right. What is the type log located on the righthand margin of Exhibit Number One?

A The log on the right side shows the Drinkard formation overlying the Abo formation in a well called the -- which ARCO drilled last year, called the Langlie Esmund Com No. 1, which is located in Section 33 of Township 22 South, Range 36 East.

The reason the log is being attached to here is to show as to where the top of the Abo would be and the mapping surface on which this contour map is based on.

Q Okay, the ARCO well is the principal well, then, you've used for your control in depicting your opinion of the possible structure in the Abo as shown on the exhibit.

A No, there are some additional wells which are highlighted in the Exhibit Number Two.

Q All right, sir, let's go to that exhibit.

A The Exhibit Number Two shows three wells which have penetrated the Abo but have not been completed in

the Abo. These would be a well in the southwest quarter of Section 4, a well in the southeast quarter of Section 10, and a well in the southwest quarter of Section 11, 23 South, 36 East.

These wells penetrated the Abo and gave us enough control as far as the structure and the facies present in the Abo.

Q Okay, while we're looking at Exhibit Number Two, let's also look at your cross section that shows those wells.

A The Exhibit Number Three is an idealized cross section across the edge of the Central Basin Platform. Exhibit Number Two demarcates the edge of the Central Basin Platform as it is mapped from this subsurface, and shows the Well No. TPO "C" State A Account No. 1 Well No. 4, which was later called 111 to be --

Q That's the well on the far left of the cross section.

A The far left of Exhibit Number Three.

Q All right, sir.

A In the section A-A'. Penetrated possible poor reef facies within the Abo and was cored and drill stem tested; had 810 feet of free gas and 10 feet of slightly oil and gas cut mud on the drill stem test.

But from the description of the core, it resembles a fore-reef section in the Abo.

Q All right, going to the right, then, and

skipping the proposed location for a moment, pick up the next well on the right.

A The next well would be the well in Section -- southeast quarter of Section 10 of 23 South, Range 36 East. It penetrated the Abo and the control for the Abo would be in the first exhibit, it penetrated at minus 4160 elevation and was also drill stem tested and pro-duced 100 feet of free oil on the drill stem test.

Q This was never completed as an Abo well, was it?

A No, it was not. It was drilled down to the Morrow but came back later up into the Queen and completed in the Langlie Mattix Field.

Q All right. So in the drill stem test they encountered possible oil in the Abo but it has not been produced from this well at this time.

A Not to my knowledge.

Q All right, sir. What is the fourth well on the cross section?

A The fourth well would be the well in the southwest quarter of Section 11, which is the Well State "A" Account No. 1 Well No. 101, which would be the right-most well depicted on this cross section, entered the back-reef, green shales and dolomites indicative of a back-reef facies.

Q Based upon your study of those logs, Mr. Subramaniam, where you propose to perforate your proposed well?

A It would be in the upper reef, possible reef trend, which would be in the higher part of the Abo.

Q What is the ownership with regards to the northwest quarter of Section 10?

A It's a Sun Exploration lease owned, I mean 100 percent Sun Exploration.

Q All right, and the royalty, overriding royalty, and working interest ownership is all common for that 160-acre tract.

A Yes, that's correct.

Q All right, sir. So there's no disadvantage to any of the offset proration units by located this Abo well as you propose to do.

A No.

Q Were Exhibits One, Two, and Three prepared by you or compiled under your direction and supervision?

A That is correct.

Q And in your opinion will approval of this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A That's correct.

MR. KELLAHIN: That concludes our examination of Mr. Subramaniam.

We move the introduction of Exhibits One, Two, and Three.

MR. STOGNER: Exhibits One through Three will be admitted into evidence.

CROSS EXAMINATION

BY MR. STOGNER:

Q Mr. Subramaniam, on your Exhibit Number One you have an orange coloring. Is this Sun?

A Sun held acreage.

The red would be mineral deed held by Sun.

Q And that's also minerals held by Sun in the Abo formation.

A Yes.

Q As well as the Langlie Mattix?

A Yes.

Q Does Sun have any injection wells into the Langlie Mattix, oh, within the surrounding sections?

A Not within the section.

Q Not within the section. Would you see much of a disadvantage as far as the Abo, proposed Abo production may go if you situate this well in a standard formation in, say, the southwest quarter of the northwest quarter, or Unit E of Section 10?

A There are two reasons for this. One would be if our Abo test is not satisfactory, we would like to use the same wellbore. Economically it would be such an ideal case. The Abo wildcat itself will not carry the well,

so it would be not prudent to test the Abo as a separate location.

Q Does any of the offsetting operators in Section 10, do they have any injection wells or waterflood projects in the Langlie Mattix --

A No.

Q -- at the present time?

A No.

MR. STOGNER: I have no further questions of this witness.

Are there any other questions of Mr. Subramaniam? If not, he may be excused.

Mr. Kellahin, do you have anything further in Case Number 7863 this morning?

MR. KELLAHIN: No, sir.

MR. STOGNER: Does anybody have anything further in Case Number 7963?

If not, this case will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7963, heard by me on Sept 28 1983.

Examiner
Oil Conservation Division