STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

ORIGINAL

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 14550

APPLICATION OF OGX RESOURCES, LLC FOR APPROVAL OF AN OIL SPACING AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

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REPORTER'S TRANSCRIPT OF PROCEEDINGS
EXAMINER HEARING

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BEFORE: MR. TERRY WARNELL, Technical Examiner
MR. DAVID K. BROOKS, Legal Examiner

September 30, 2010

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, TERRY WARNELL, Technical Examiner and DAVID K. BROOKS, Legal Examiner, on Thursday, September 30, 2010, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South St. Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: Jeannine K. Sims, RPR, NM CCR #12
Paul Baca Court Reporters
500 Fourth Street, NW, Suite 105
Albuquerque, New Mexico 87102

A P P E A R A N C E S

FOR THE APPLICANT:

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HEARING OFFICER BROOKS: Well, no one else had appeared on Case 14548 yet. We do have one other case, so at this time we will call case 14550, Application of OGX Resources, LLC for approval of an oil spacing and proration unit and compulsory pooling, Eddy County, New Mexico. Call for appearances.

MR. BRUCE: Mr. Examiner, Jim Bruce representing the applicant. I have two witnesses.

MR. CARR: May it please the examiner, William F. Carr with the Santa Fe office of Holland and Hart, LLP. We represent Nearburg Producing Company in this matter and I have no witnesses.

HEARING OFFICER BROOKS: Very good. Witnesses will need to be sworn.

(Two witness were sworn.)

HEARING OFFICER BROOKS: State your name, please.

MR. LANG: Garland H. Lang the Third.

MR. HARDIE: William Hardie.

HEARING OFFICER BROOKS: Okay.

* * *

E X A M I N A T I O N

BY MR. BRUCE:

Q. Will you state your name for the record.

A. Garland H. Lang the Third.

Q. Where do you reside?
A. In Garland, Texas.
Q. Who do you work for and in what capacity?
A. OGX Resources, LLC. I'm the land manager.
Q. Have you previously testified before the Division?
A. I have.
Q. And were your credentials as an expert petroleum landman accepted as a matter of record?
A. They were.
Q. Are you familiar with the land matters involved in this case?
A. I am.
Q. And does your area of responsibility in OGX include in the portion of Eddy County?
A. It does.
MR. BRUCE: Mr. Examiner, I tender Mr. Lang as an expert petroleum landman.
HEARING OFFICER BROOKS: So qualified.
Q. (BY MR. BRUCE) Mr. Lang, could you identify Exhibit 1 for the Examiner and identify the well that OGX plans on drilling.
A. It's just a land plat showing Section 25 of 24 South 28 East in Eddy County, New Mexico. And it's the yellow color is our proposed proration unit for our

well, which is the Mongo 25 Fed Com No. 2H.

Q. And what is the well unit for the well?

A. Be the south half of the north half of Section 25 of Township 24 South, Range 28 East, Eddy County, New Mexico.

Q. And looking at Page 2 of the exhibit what is the surface footage and determinates of the proposal?

A. Well, the surface location is 374 feet from the east line and 1980 feet from the north line. And the bottom hole location is 1980 from the north line and 350 from the west line.

Q. What is the primary target of this well?

A. It's the Avalon shale in the Bone Spring.

Q. And that has been developed as -- in this area as oil pools, correct?

A. Yes.

Q. What parties do you seek to force pool in this case?

A. Chesapeake Permian, LP, and RKC, Inc.

Q. And what are Exhibits 2A and 2B?

A. These are letters that we sent both parties proposing the well.

Q. Had you had previous contacts before these proposal letters went out?

A. No.

Q. Okay. Have you talked with these parties since then?

A. I have.

Q. Have you had both telephone discussions and e-mails with them?

A. With Chesapeake I've had telephone conversations. With R -- I mean fax and telephone and e-mail. With RKC it's just been telephone.

Q. What is the current status of your negotiations?

A. Well, Chesapeake has signed a letter and an AFE to drill the well, but they haven't signed an operating agreement; they are now reviewing that operating agreement.

Q. Okay.

A. And RKC has not made a decision and they have not been sent an operating agreement because they haven't decided whether they are going to participate or do some other type of procedure.

Q. If either of these parties subsequently voluntarily joins in the well, will you notify the Division?

A. Yes.

Q. And what interests do they own in the well unit?

A. Well, in the well unit they own the southeast of the northwest and the southwest of the northeast under a federal lease, RKC owns 25 percent of that lease and Chesapeake owns 75 percent of that lease. So in the well unit, RKC would have an 8th working interest and Chesapeake would have a 37-and-a-half percent working interest.

Q. In your opinion have you made a good faith effort to obtain the voluntary joinder of these parties in the well unit?

A. Yes, we have.

Q. And if they go non-consent do you ask that the maximum 200 percent --

A. Yes.

Q. -- risk charge be assessed?

A. Yes.

Q. What overhead rates do you request, Mr. Lang?

A. 60 -- $6500 for the drilling and $650 for the monthly operating.

Q. And are these overhead rates equivalent to those charged by other operators in this area for wells of this type?

A. They were.

Q. What is Exhibit 3?

A. It's a copy of our AFE to drill the well.

Q. What is the estimated costs?

A. Completed is $4,066,158.

Q. And is this well cost equivalent to the costs of other Bone Spring wells drilled in this area?

A. It is.

MR. BRUCE: Mr. Examiner, Exhibit 4 is simply my affidavit of notice to the parties being pooled and they both received actual notice.

Q. (BY MR. BRUCE) Mr. Lang, does Exhibit 5 reflect offset operators or working interest owners to a proposed non-standard unit?

A. It does.

MR. BRUCE: And Mr. Examiner, Exhibit 6 is my affidavit of notice to the offsets and again everyone received actual notice.

Q. (BY MR. BRUCE) Mr. Lang, in your opinion is the granting of this application in the interests of conservation and the prevention of waste?

A. Yes.

Q. And were Exhibits 1 through 6 either prepared by you or compiled in your business records?

A. They were.

MR. BRUCE: Mr. Examiner, I move the admission of Exhibits 1 through 6.

HEARING OFFICER BROOKS: Exhibits 1 through 6 are admitted.

MR. BRUCE: I have no further questions of the witness.

* * *

E X A M I N A T I O N

BY HEARING OFFICER BROOKS:

Q. Okay. You gave me the coordinates for the surface location and bottom hole location. Where is the penetration point?

A. The penetration point of the -- the penetration point will be 854 feet from the east line and 1980 feet from the north line of the --

Q. Okay. And we have got actual notice to both of the pooled parties?

MR. BRUCE: Yes.

HEARING OFFICER BROOKS: Okay. Now, then in looking at the application in this, in some of your horizontal compulsory poolings you have asked for a 40-acre unit at the well site. Did you do that in this case?

MR. BRUCE: No, I didn't.

HEARING OFFICER BROOKS: Okay. So the only unit being asked for is the 120-acre unit in the Bone Spring?

MR. BRUCE: That is correct. 160 acres. Okay.

HEARING OFFICER BROOKS: Okay. I believe that's all I have. Mr. Warnell?

MR. WARNELL: No questions.

HEARING OFFICER BROOKS: Very good. Witness may step down.

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E X A M I N A T I O N

BY MR. BRUCE:

Q. Would you please state your full name and city of residence for the record.

A. My name is William Hardie and I live in Midland, Texas.

Q. Who do you work for and in what capacity?

A. I'm the exploration manager for OGX Resources.

Q. And by profession are you a geologist?

A. I am.

Q. Have you previously testified before the division as a petroleum geologist?

A. I have.

Q. And were you credentials as an expert accepted as a matter of record?

A. They were.

Q. And are you familiar with the geology involved in this application?

A. I am.

MR. BRUCE: Mr. Examiner, I tender Mr. Hardie as an expert petroleum geologist.

HEARING OFFICER BROOKS: So qualified.

Q. (BY MR. BRUCE) Mr. Hardie, would you look at your Exhibit 7 and discuss the primary zone of interest in this well.

A. Exhibit 7 is a cross-section that runs east/west through the proposed well location. On this you'll see the offset well logs shown with a blue grid and then the proposed location is shown with a little pipe of red color. The target in this case is what we call the Avalon shale which is the upper most member of the Bone Spring formation.

Most operators define the Avalon shale as everything between the Basil Brushy Canyon and first Bone Spring sand. The unit is about 900 feet thick on average across all of southeast New Mexico. The only difference across the Permean basin in this unit is the amount of shale present. And the amount of shale is critical to this play because it is after all a shale play and it's drilled horizontally.

The color codes on the Avalon shale, the

brown represents -- represents the shale formation and the blue represents the inner-bedded limestone formations. We believe that it's necessary to have both shale and limestone. The limestone creates a certain brittleness that is critical to being able to fracture stimulate this interval. The shales are organic rich, they are essentially not a true shale but in fact they are organic rich silt stones with a pretty significant silica content. And it's from these intervals that we produce the oil and gas.

Q. What is Exhibit 8, Mr. Hardie?

A. Exhibit 8 are -- actually consists of two geological maps. Each of those maps also shows the location of the -- of the cross-section depicted in Exhibit 7. The map on the left is a color-filled contour icopach of the net Avalon shale so that it represents within that 900-foot interval that portion of the interval that is composed of shale.

The criteria that I used to map and count the amount of shale was a gamma ray API unit cutoff at a hundred units and that's a pretty severe cutoff. The reason for that cutoff being so high is that organic rich shales tend to have a much higher gamma ray reading than non-organic rich fields.

So my goal was to identify that shale

component which is organically rich, which is the primary target for this play. The average thickness of the net shale across this part of Eddie County ranges from over 500 feet thick in the thickest portions to just under 100 feet thick in some of the thinner portions.

As you can see, in the upper part of the map in Section 25 that is colored yellow, you see the proposed location, Mongo 25 Fed Com No. 2H running in an east/west direction. The anticipated thickness of shale that we will encounter is anywhere between 350 feet and approximately 200 feet, which is a pretty typical thickness for most of the wells that have been drilled in this play.

I've also depicted on this map the other Avalon shale activity so that the proposed Avalon shale wells and the ones that are currently drilled are shown in green. The solid green well bores are the ones that have already been drilled and the dotted well bores are the ones that have been proposed as of last week as far as we know.

So as you can see, this area is experiencing quite a bit of development for this horizon. This well represents to date the northernmost attempt to drill an Avalon shale well; most of other activity is well south of here. The map on the right is a structure map on the

base of the Avalon shale.

And also shown on this map are the green Avalon shale tests and proposed wells. Structural contours here are on a 25-foot contour interval. Structural dip in this area is about a hundred feet per mile to the east, there are no significant structural components to this play. This map is generated primarily to determine the angle of the well bore as we pass through the formation.

We anticipate that at the western side of the section for the proposed well that we will gain a hundred feet in elevation across the formation as we drill east/west across the section. So the proposed well, the toe of the proposed horizontal well is a hundred feet high to the beginning of the curve.

Q. Mr. Hardie, before you move off this map, looking at 25 South 29 East in Section 16 it looks like that Section has eight wells permitted on it. Could you comment on that?

A. That section I think the operator is Devon Energy. And they are proposing to drill Avalon shale wells on an 80-acre space, which would essentially put eight well bores per section. And this is based on reservoir engineering studies that we have done and I'm sure that they have done as well that indicate the

typical horizontal well only drains approximately 65 acres. So it looks like Devon is going to test this concept. They have already drilled two to three of those well bores and still have a rig running out there even as we speak.

Q. Mr. Hardie, from this geology do you anticipate each quarter/quarter section within the non-standard well unit to contribute to production?

A. I do.

Q. And will the horizontal drilling and the non-standard unit enhance the economics of drilling this well?

A. It will.

Q. What is Exhibit 9?

A. Exhibit 9 is the drilling permit that has been filed with the State of New Mexico.

Q. Actually this was filed with the BLM.

A. BLM. I'm sorry.

Q. And does this contain the directional drilling plan for the well?

A. It does. And that is about five pages into it. It includes a plan that has been constructed by Pathfinder.

Q. And could you discuss in general terms the drilling of the well and the -- et cetera.

A. Typically we drill -- we drill a vertical well bore to a depth approximately 500 feet above our anticipated end of the curve. We will typically log that vertical portion of the well bore with open hole logs, and then run back in the hole with directional tools and begin building our curve. The curve is built in such a way that the distance between the vertical well bore and the entry point for the horizontal is approximately 500 feet of horizontal distance. The end of the curve in this case is going to be at an approximate depth of 7,000 feet and the end of the lateral will be at a TVD, a total vertical depth of approximately 6900 feet. These -- these numbers are subject to change as we drill the vertical well and we start getting formation tops that may cause us to alter the plan as we're drilling and recognize that there's a difference between our predicted tops and what we're actually experiencing.

Q. In your opinion is the granting of this application in the interests of conservation and prevention of waste?

A. It is.

Q. And were Exhibits 7 and 8 prepared by you?

A. They were.

Q. And is Exhibit 9 compiled from company business records?

A. It is.

MR. BRUCE: Mr. Examiner, I move the admission of Exhibits 7, 8 and 9.

HEARING OFFICER BROOKS: 7, 8 and 9 are admitted.

MR. BRUCE: I have no further questions of the witness.

* * *

E X A M I N A T I O N

BY HEARING OFFICER BROOKS:

Q. You said in your testimony that -- well, you said this was shale play and was drilled -- normally drilled horizontally. Do you consider that horizontal drill as a reasonable way to develop this 160-acre unit?

A. Mr. Examiner, it's probably the only way to develop it because vertical completions in this shale interval are not commercial. That's been tried on a number of occasions and has yet to result in a commercially-producing well.

Q. And is this -- it looks like looking at the map of the existing wells and proposed wells that most people are doing the one-mile length. Is that an accurate characterization?

A. In this area one mile of lateral is the standard. There are places in New Mexico where due to

the unusual shape of sections that wells have been drilled a mile-and-a-half in length.

Q. Yeah. The four quarter section -- four quarter quarter sections will be included in this unit do you consider all four quarter quarter sections would contribute to production?

A. Absolutely.

HEARING OFFICER BROOKS: Okay. I believe that's all my questions. Mr. Warnell?

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E X A M I N A T I O N

BY MR. WARNELL:

Q. Yeah. Mr. Hardie, you said you begin by drilling vertical well and then log it. On the vertical well will that go all the way through the Avalon shale down to the first Bone Spring sand or --

A. It will not. We have sufficient control in this area to avoid doing that. That is an additional cost that we can avoid in this case. So we'll stop 500 feet above our target and log the well and then -- and then go in with directional tools.

Q. So once you drill then when you make your radius, make your turn and drill your lateral, there will be no logging?

A. There will be gamma ray logs available.

Those are measured while drilling. And those are also critical to the process in that if there are unexpected changes in formation tops as we drill the curve we can adjust for that.

Q. So you'll have gamma ray MWD and that's it for the lateral?

A. That is correct.

Q. How about completing? I'm kind of curious about the completing. Will this be a stage frac or --

A. It will be. The frac technology in this play is evolving and it's currently kind of the most common type of frac is approximately ten stages, and those stages will involve the pumping of approximately 2 million pounds of sand and approximately 75,000 barrels of water in that process. We refer to this frac technology as hybrid because it does involve both the slick water type of frac and it involves gel fluids as well.

MR. WARNELL: All right. I have no other questions. Thank you.

HEARING OFFICER BROOKS: Okay. Thank you. If there's nothing further then Case No. 14550 will be taken under advisement.

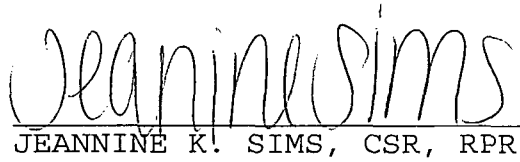
I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 14550 heard by me on 9-30-2010

David K. Brooks
Oil Conservation Division

THE STATE OF NEW MEXICO :
COUNTY OF BERNALILLO :

BE IT KNOWN that the foregoing transcript of proceedings was taken by me; that I was then and there a Certified Court Reporter and Notary Public in and for the County of Bernalillo, State of New Mexico, and by virtue thereof, authorized to administer an oath; that the witness before testifying was duly sworn by me; that the foregoing 19 pages contain a true and accurate transcript of the proceedings, all to the best of my skill and ability.

I FURTHER CERTIFY that I am neither employed by nor related to nor contracted with (unless excepted by the Rules) any of the parties or attorneys in this case, and that I have no interest whatsoever in the final disposition of this case in any court.



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