STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

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

CASE NO. 12,266

APPLICATION OF SANTA FE SNYDER CORPORATION FOR APPROVAL OF A UNIT AGREEMENT, LEA COUNTY, NEW MEXICO

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MARK ASHLEY, Hearing Examiner

October 21st, 1999

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MARK ASHLEY, Hearing Examiner, on Thursday, October 21st, 1999, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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STEVEN J. SMITH (Landman) Direct Examination by Mr. Bruce 4 Examination by Examiner Ashley 10 STEVE HULKE (Geologist) Direct Examination by Mr. Bruce 12 Examination by Examiner Ashley 18 REPORTER'S CERTIFICATE 20

EXHIBITS

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APPEARANCES

FOR THE DIVISION:

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FOR THE APPLICANT:

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FOR NEARBURG EXPLORATION COMPANY:

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Santa Fe, New Mexico 87504-2208
By: WILLIAM F. CARR

* * *

WHEREUPON, the following proceedings were had at 1 10:15 a.m.: 2 The hearing will now come back EXAMINER ASHLEY: 3 to order, and the Division calls Case 12,266, Application 4 of Santa Fe Snyder Corporation for approval of a unit 5 agreement, Lea County, New Mexico. 6 Call for appearances. 7 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, 8 representing the Applicant. I have two witnesses. 9 EXAMINER ASHLEY: Additional appearances? 10 May it please the Examiner, my name is 11 MR. CARR: William F. Carr with the Santa Fe law firm Campbell, Carr, 12 Berge and Sheridan. We represent Nearburg Exploration 13 14 Company in this matter, and I have no witnesses. EXAMINER ASHLEY: Will the witnesses please stand 15 to be sworn in? 16 17 (Thereupon, the witnesses were sworn.) STEVEN J. SMITH, 18 the witness herein, after having been first duly sworn upon 19 his oath, was examined and testified as follows: 20 DIRECT EXAMINATION 21 BY MR. BRUCE: 22 Would you please state your name? 23 Q. Steven Smith. 24 Α. 25 Where do you reside? Q.

A. Midland, Texas.

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- Q. Who do you work for and in what capacity?
- A. I'm a senior staff landman for Santa Fe Snyder Corporation.
- Q. Have you previously testified before the Division?
- A. Yes, I have.
 - Q. And were your credentials as an expert petroleum landman accepted as a matter of record?
 - A. Yes, they were.
- Q. And are you familiar with the land matters involved in this Application?
- 13 A. Yes, I am.
- MR. BRUCE: Mr. Examiner, I tender Mr. Smith as
 an expert petroleum landman.
- 16 EXAMINER ASHLEY: Any opposition?
- 17 MR. CARR: No objection.
- 18 EXAMINER ASHLEY: Mr. Smith is so qualified.
- Q. (By Mr. Bruce) Mr. Smith, could you refer to
 Exhibit 1, identify it for the Examiner and describe what
 Santa Fe seeks in this case?
- 21 | Santa Fe seeks in this case?
- A. Exhibit 1 is a plat representing the land that we

propose to include in a voluntary state exploratory unit.

The proposed unit will cover the south half of Section 1,

- 25 the south half of Section 2, all of Section 11 and the west

half of Section 12, Township 21 South, Range 34 East, Lea County, New Mexico.

- Q. Will the unit include all depths?
- A. It will cover all depths.

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- Q. And what type of lands are these in the unit?
- A. All of the lands within the proposed unit are State of New Mexico lands.
 - Q. Now, there's a second page to Exhibit 1. What does that show?
 - A. This is a summary of the lands involved, and it shows the working, overriding royalty and royalty ownership throughout all the lands in the proposed unit.
 - O. What is Exhibit 2?
 - A. Exhibit 2 is the proposed unit agreement. It is the standard State of New Mexico state/fee form. And Exhibit B, again, to this proposed unit is a list of all the land -- the working, royalty and overriding royalty interest owners by tract.
 - Q. Who are the working interest owners within the unit?
 - A. The record owners within the unit are Santa Snyder Corporation, Nearburg Exploration Company and Phillips Petroleum. We are aware of, by conversation and agreement between Southwestern Energy and Phillips, under which Southwestern may be able to earn an interest in

Phillips' lands, and based upon that knowledge we proposed the unit to Southwestern as well.

- Q. As well as to Phillips?
- A. That's correct.

- Q. Which of the working interest owners have at this time ratified or signed the unit agreement?
- A. Santa Fe and Nearburg both have signed or ratified the unit and unit operating agreements.
- Q. Giving those two signatures, what percentage of the working interest owners are committed to the unit?
- A. 95 percent.
 - Q. And what about the state royalty interests?
 - A. Well, the State has given preliminary approval to the unit, and they have 100 percent of the leased royalty.
 - Q. Is the State's letter of preliminary approval marked as Exhibit 3?
- A. Yes, it is.
 - Q. Now, the description in the unit also lists two overriding royalty interest owners in Tract 1, solely in Tract 1. Have either of those agreed to ratify the unit?
 - A. Neither have signed the ratification. I've sent letters and spoken with both -- It's OXY Petroleum and Scott Wilson and Richard [sic] Barr. And Wilson and Barr have indicated verbally they'll probably the join the unit, and I believe OXY is still considering.

Q. Well, let's discuss your contacts with these working interest owners. What is Exhibit 4?

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- A. Exhibit 4 are copies of the letters that were sent out notifying everyone of our proposed unit and requesting that they -- or offering the opportunity to join. They were all mailed out October 11th of 1999.
- Q. And have you had any follow-up discussions with these interest owners?
- A. I've had numerous phone calls with all the parties, and the -- Phillips and Southwestern are still discussing internally what they're going to do.
- Q. Is there an upcoming time deadline regarding drilling the first unit well?
- A. Well, there are really two that we're facing.

 Our first lease in the proposed unit expires 12-31-99. But our more pressing concern is rig availability. We have a rig that we need to keep busy, and if we let it go we'll lose it with the state of the industry. And we'd like to be able to spud this well by November 7th, and that would allow us to utilize the rig that's available.
- Q. And therefore you request expedited approval of the unit agreement?
 - A. Yes, we do.
- Q. Now, this is a voluntary unit as you said, correct, Mr. Smith?

A. That's correct.

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- Q. And therefore no one can be ordered into the unit?
- A. No, and those that don't join will be subject to their own lease terms if they were ever -- a well were drilled involving them. So it's a voluntary unit, no one would...
- Q. What are Santa Fe's plans for the initial unit well?
 - A. The initial well is scheduled to be a Morrow well. We want to drill it in the southwest southwest of Section 12. And again, we'd like to spud the well on or before November 7th.
- Q. What is Exhibit 5?
- A. Exhibit 5 is the AFE that was sent out to the potential working interest owners.
- 17 | O. And this is for the initial unit well?
- A. It is. It's for a 13,600-foot Morrow test. We have an estimated dryhole cost of \$1,171,000 and a completed well cost of \$1,403,000.
 - Q. Does Santa Fe request that it be designated operator of the unit?
- A. Yes, we are the largest working interest owner, we'd like to be the operator.
 - Q. Although no one can be forced into the unit, were

the working interest owners notified of this hearing? 1 Yes, they were. Α. 2 And is Exhibit 6 my affidavit of notice? 3 Q. 4 Yes, it is. And in your correspondence with the interest 5 owners in Exhibit 4, did you also inform all the interest 6 owners of the hearing date? 7 Yes, I did. Α. 8 Were Exhibits 1 through 6 prepared by you or 9 Q. under your supervision or compiled from company business 10 records? 11 Yes, they were. 12 And in your opinion is the granting of this 13 Application in the interests of conservation and the 14 prevention of waste? 15 Α. Yes. 16 MR. BRUCE: Mr. Examiner, I move the admission of 17 Santa Fe Exhibits 1 through 6. 18 19 EXAMINER ASHLEY: Exhibits 1 through 6 will be 20 admitted into evidence. 21 **EXAMINATION** BY EXAMINER ASHLEY: 22 Mr. Smith, you said Santa Fe and Nearburg have 23 24 signed the unit agreement? Unit and unit operating agreement. 25 Α.

- Q. Okay. And what percentage does that represent?
- A. 95 percent of the working interest ownership.

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- Q. And so Phillips represents five percent of that?
- A. They're the record title owner. I am aware of an agreement between Phillips and Southwestern. I have not seen it and don't know the specific terms, but I am of the understanding that Southwestern has the right to explore on this property. So Southwestern has expressed some interest in joining, but I don't know their capacity yet. We're still going to leave the door open to them to join, if they can work out whatever it is, the trade they have with Phillips.
 - Q. So Phillips hasn't signed anything yet?
- A. Phillips has indicated they're not interested in joining. But again, I don't know what the relationship, or the obligations there are between Phillips and Southwestern. I don't have privy to that agreement.
- Q. Now, tell me again about these two deadlines. You've got one on the 31st of December?
- A. That's the first expiring state lease, and we must drill by then to save that lease.

But our more pressing concern is that we have a rig that we will be able to move onto this location on or about November 7th. And with rig availability as it is, if you don't keep it's lost to you and you may never get it

1 back. We are preparing to spud by November 7th. 2 Okay. And this unit is for --3 Q. The outland -- It's a proposed Morrow test, but 4 Α. 5 it will cover all depths. EXAMINER ASHLEY: Okay. I have nothing further, 6 7 thank you. MR. HULKE: If it would be helpful, I'll put 8 these exhibits up on the wall, if you're rather look at 9 them --10 EXAMINER ASHLEY: Are they fairly long? 11 12 MR. HULKE: Yeah, this one is. EXAMINER ASHLEY: Yeah, that would be fine, you 13 can put it up. 14 15 STEVE HULKE, the witness herein, after having been first duly sworn upon 16 his oath, was examined and testified as follows: 17 DIRECT EXAMINATION 18 BY MR. BRUCE: 19 Would you please state your name and city of 20 21 residence for the record? My name is Steve Hulke. I'm from Midland, Texas. 2.2 Α. Who do you work for? 23 Q. I work for Santa Fe Snyder Corporation. 24 Α. 25 What's your job with them? Q.

- A. I'm a senior staff geologist.
- Q. Have you previously testified before the Division?
 - A. No, I haven't.

- Q. Would you please summarize your educational and employment background for the Examiner?
- A. I received a bachelor's degree from Carleton

 College in 1970, a master's degree from the University of

 Texas in Austin, 1978. I worked for Turk, Keahle and

 Associates in Austin in 1974 to 1980, Anadarko Production

 Company in Midland from 1980 to 1981, 1981 to 1983 was

 Heritage Resources in Midland, 1983 to 1985 Woods Petroleum

 in Midland, 1985 to 1997 Hunt Oil Company in Midland and

 Dallas, 1997 to the present for Santa Fe Snyder.
- Q. And were your positions with those companies as a geologist?
- A. They were as exploration geologist, everyone except for Woods, where I was an exploration manager.
- Q. And does your area of responsibility at Santa Fe include Southeast New Mexico?
 - A. Yes, it does.
- Q. And are you familiar with the geologic matters involved in this Application?
 - A. Yes, I am.
- MR. BRUCE: Mr. Examiner, I'd tender Mr. Hulke as

an expert petroleum geologist.

EXAMINER ASHLEY: Mr. Hulke is so qualified.

- Q. (By Mr. Bruce) Mr. Hulke, could you identify your Exhibit 7, describe it for the Examiner and discuss the primary zones of interest for the initial unit well?
- A. Exhibit 7 is a stratigraphic cross-section of the Morrow Section in the proposed Outland Unit area. The stratigraphic cross section is hung on a datum, which is the top of the middle Morrow Clastics. The primary sands of interest are the Morrow C sand and the Morrow CB sand, colored yellow and orange.

The three maps I've prepared are a structure map on the top of the middle Morrow C sand, the yellow sand, and I have porous sand maps on the C and the CB.

- Q. And the middle Morrow is the primary zone of interest?
 - A. That's correct.
- Q. Would you identify your Exhibit 8, I believe, and describe how the boundaries of the unit were established?
- A. Exhibit 8 is a structure map on the middle Morrow C. Again, that's the yellow horizon, the top of that sand.

This map depicts the structure on the top of the middle Morrow C, and in essence there are three dip panels or fault blocks on this map. There's an eastern block, which is very high. There is a western block, which is

very low.

And in between, the intermediate fault block is our prospective fault block. It's bounded to the east by a down-to-the-west fault, it's bounded on the west by a down-to-the-west fault, and the fault on the east boundary is significantly larger than the fault on the west, and I have those two faults merging together south of the proposed unit. The unit outline basically follows section and half-section lines to coincide with those faults.

- Q. Is the faulting based on well control, Mr. Hulke?
- A. Yes, the faulting is based on well control. At the north end of the map it's very clear that -- For instance, in Section 36 of 20 South, 35 East, there is about 1700 feet between wells on the east side of the section and a well on the west side.

Additionally, in Sections 35 and 34 there's 600 feet of structural relief between wells on the east and the west of that interpreted fault.

On the south end of the map, in Section 21 South, 34 East, there's a similar faulting geometry. The top of the sand drops about 900 feet across to the east-bounding-fault, and then the top of the C sand drops another 300 feet to Section 21. So I have good well control at the north end and the south end of the structure map to interpret the faults. In between, there's not very much

data, or there's no data, and that's where the prospect resides.

- Q. So the unit outline itself is based solely on the structure map here?
 - A. That's correct.

- Q. That is not how the initial well location was chosen; is that correct?
- A. No, the initial well location is chosen in the prospective fault block where we believe we have the highest probability of finding sand in the C and B zones -- C and CB zones.
- Q. Why don't you refer to your Exhibits 9 and 10 together and discuss the reason for the initial well location?
- A. First, if you look at the cross-section, the yellow horizon, the middle Morrow C sand, is present in every well, and it's relatively thick. And if you look at my porous sand map on the middle Morrow C, you'll see that it's present nearly everywhere and it's relatively thick.

However, the CB sand, the orange sand, is present everywhere, but in many of the wells it's very thin and tight. There are two key wells on the cross-section: the Wilson Deep Unit Number 1, which is in Section 13 just south of our proposed location, which has very nice thick sands in both the C and the CB, and in fact it made 5 BCF

out of the CB sand.

The State R well in Section 1 is the closest well in our prospective fault block that has -- well, it's the closest well in the prospective fault block, and it has a very thick C sand and a very thin and tight CB sand.

Our location is chosen where we have the highest probability of finding thick sands in the C and the CB, which is close to the Wilson Deep Unit well in Section 13.

So we're in a separate fault block from the Wilson Deep Unit well, but we hope to find the same two sands.

- Q. Looking at your Exhibits 9 and 10, it looks like it's easier to find the C sand, and maybe the location is more based on hitting the main zone in the CB sand?
- A. Well, we want to find both. And that's correct, there's lower risk of finding thick sand in the C, it's substantially higher risk finding the CB. If you look at the porous sand map on the CB in the Section 13 well, we have 12 feet of porosity, of porous sand. But all of the other wells around it are very thin.

So it's clear that the best chance of finding thick CB sand is in the -- getting as close as possible to the Section 13 well, and we want to find both.

Q. And Mr. Hulke, all of these exhibits you've presented today have been presented to the State Land

Office?

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- A. Yes, that's correct.
- Q. Were Exhibits 7 through 10 prepared by you or under your direction?
 - A. Yes.
 - Q. And in your opinion is the granting of this Application in the interests of conservation and the prevention of waste?
 - A. Yes, it is.
- MR. BRUCE: Mr. Examiner, I'd move the admission of Santa Fe's Exhibits 7 through 10.
- 12 EXAMINER ASHLEY: Exhibits 7 through 10 will be 13 admitted as evidence.
- 14 EXAMINATION
- 15 BY EXAMINER ASHLEY:
- Q. Mr. Hulke, what field is this that's just to the southeast of the proposed unit? The wells that are in Section -- like 23 and Section 13?
 - A. Oh, those are shallow Yates and Seven Rivers wells in the Wilson field. On these maps, the deep wells have circles around them. My cutoff depth is 11,000 feet, and there's data posted at each of those wells, each of the deep locations, with the exception of a well in the southwest quarter of Section 24 where there was no log available.

1	All of the other wells without circles are		
2	basically Yates-Seven Rivers.		
3	Q. Okay.		
4	A. 3000 feet, plus or minus.		
5	Q. Now, the well in Section 13		
6	A. Yes, sir.		
7	Q that's the one that's produced 5 BCF?		
8	A. Yes, sir.		
9	Q. And which well is that? The		
10	A. The Wilson Deep Unit well.		
11	Q. Okay, yeah. And once again, the dotted area is		
12	Santa Fe acreage, and then the outlined area is the		
13	proposed unit, and that's based solely on structure; is		
14	that		
15	A. Yes. We want to be in that intermediate fault		
16	block.		
17	EXAMINER ASHLEY: Okay, I have nothing further.		
18	8 Thank you.		
19	MR. BRUCE: I have nothing further in this		
20	0 matter, Mr. Examiner.		
21	EXAMINER ASHLEY: There being nothing further in		
22	this case, Case 12,266 will be taken under advisement.		
23	(Thereupon, these proceedings were concluded at		
24	10:44 a.m.)		
25	Acces to the of * *		

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL November 1st, 1999.

STEVEN T. BRENNER CCR No. 7

My commission expires: October 14, 2002