STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

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

APPLICATION OF EOG RESOURCES, INC., FOR APPROVAL OF AN UNORTHODOX WELL LOCATION, EDDY COUNTY, NEW MEXICO CASE NO. 13,741

)

ORIGINAL

2006

13

PM

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: RICHARD EZEANYIM, Hearing Examiner

July 6th, 2006

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, RICHARD EZEANYIM, Hearing Examiner, on Thursday, July 6th, 2006, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

July 6th, 2006 Examiner Hearing CASE NO. 13,741

PAGE

3

27

APPEARANCES

APPLICANT'S WITNESS:

STEVEN D. ROBERTSON (Engineer)Direct Examination by Ms. Munds-Dry4Examination by Examiner Ezeanyim16

INDEX

REPORTER'S CERTIFICATE

* * *

EXHIBITS

Applicant's		Identified	Admitt	ced
Exhibit	1	7		15
Exhibit	2	7		15
Exhibit	3	8		15
Exhibit	4	11		15
Exhibit	5	11		15
Exhibit	6	12		15
Exhibit	7	12		15
Exhibit	8	13		15
Exhibit	9	15		15
Exhibit	10	15		15
		* * *		

STEVEN T. BRENNER, CCR (505) 989-9317 2

APPEARANCES

FOR THE DIVISION:

GAIL MacQUESTEN Deputy General Counsel Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, New Mexico 87505

FOR THE APPLICANT:

HOLLAND & HART, L.L.P., and CAMPBELL & CARR 110 N. Guadalupe, Suite 1 P.O. Box 2208 Santa Fe, New Mexico 87504-2208 By: OCEAN MUNDS-DRY

* * *

3

_	
1	WHEREUPON, the following proceedings were had at
2	8:55 a.m.:
3	EXAMINER EZEANYIM: At this point I call Case
4	Number 13,741. This is the Application of EOG Resources,
5	Inc., for approval of an unorthodox well location, Eddy
6	County, New Mexico.
7	Call for appearances, please.
8	MS. MUNDS-DRY: Good morning, Mr. Hearing
9	Examiner. My name is Ocean Munds-Dry with the law firm of
10	Holland and Hart, here representing EOG Resources, Inc.,
11	this morning, and I have one witness.
12	EXAMINER EZEANYIM: No other appearances?
13	May the witness stand up to be sworn, please?
14	(Thereupon, the witness was sworn.)
15	EXAMINER EZEANYIM: Ms. Munds, you can proceed.
16	MS. MUNDS-DRY: Thank you, Mr. Examiner.
17	STEVEN D. ROBERTSON,
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 MS. MUNDS-DRY:
22	Q. Would you please state your name for the record?
23	A. Steven D. Robertson.
24	Q. Where do you reside?
25	A. Midland, Texas.

ŝ

Q. By whom are you employed? A. EOG Resources, Inc. Q. And in what capacity? A. As a petroleum engineer. Q. Have you previously testified before the Division? A. No, I have not. Q. Would you please summarize your educational background for Mr. Ezeanyim? A. I received a degree in chemical engineering in 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the		
 Q. And in what capacity? A. As a petroleum engineer. Q. Have you previously testified before the Division? A. No, I have not. Q. Would you please summarize your educational background for Mr. Ezeanyim? A. I received a degree in chemical engineering in 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	1	Q. By whom are you employed?
 A. As a petroleum engineer. Q. Have you previously testified before the Division? A. No, I have not. Q. Would you please summarize your educational background for Mr. Ezeanyim? A. I received a degree in chemical engineering in 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	2	A. EOG Resources, Inc.
 Q. Have you previously testified before the Division? A. No, I have not. Q. Would you please summarize your educational background for Mr. Ezeanyim? A. I received a degree in chemical engineering in 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	3	Q. And in what capacity?
 Division? A. No, I have not. Q. Would you please summarize your educational background for Mr. Ezeanyim? A. I received a degree in chemical engineering in 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	4	A. As a petroleum engineer.
 A. No, I have not. Q. Would you please summarize your educational background for Mr. Ezeanyim? A. I received a degree in chemical engineering in 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	5	Q. Have you previously testified before the
 Q. Would you please summarize your educational background for Mr. Ezeanyim? A. I received a degree in chemical engineering in 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	6	Division?
 background for Mr. Ezeanyim? A. I received a degree in chemical engineering in 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	7	A. No, I have not.
 A. I received a degree in chemical engineering in 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	8	Q. Would you please summarize your educational
 1975 at the University of Minnesota. Since then I was employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	9	background for Mr. Ezeanyim?
 employed for 30 years by Unocal Corporation as a research engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	10	A. I received a degree in chemical engineering in
 engineer and as an operations petroleum engineer. And for the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	11	1975 at the University of Minnesota. Since then I was
 the last six months I've been employed by EOG Resources. Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	12	employed for 30 years by Unocal Corporation as a research
 Q. And are you a registered professional engineer in Texas? A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	13	engineer and as an operations petroleum engineer. And for
 16 Texas? 17 A. Yes, I am. 18 Q. Are you familiar with the Application filed on 19 behalf of EOG Resources? 20 A. Yes, I am. 21 Q. And are you familiar with the status of the lands 22 in the area? 23 A. Yes, I am. 24 Q. And have you made a technical study of the 	14	the last six months I've been employed by EOG Resources.
 A. Yes, I am. Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	15	Q. And are you a registered professional engineer in
 Q. Are you familiar with the Application filed on behalf of EOG Resources? A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	16	Texas?
 19 behalf of EOG Resources? 20 A. Yes, I am. 21 Q. And are you familiar with the status of the lands 22 in the area? 23 A. Yes, I am. 24 Q. And have you made a technical study of the 	17	A. Yes, I am.
 A. Yes, I am. Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	18	Q. Are you familiar with the Application filed on
 Q. And are you familiar with the status of the lands in the area? A. Yes, I am. Q. And have you made a technical study of the 	19	behalf of EOG Resources?
 22 in the area? 23 A. Yes, I am. 24 Q. And have you made a technical study of the 	20	A. Yes, I am.
 A. Yes, I am. Q. And have you made a technical study of the 	21	Q. And are you familiar with the status of the lands
Q. And have you made a technical study of the	22	in the area?
	23	A. Yes, I am.
25 subject area?	24	Q. And have you made a technical study of the
	25	subject area?

-	
1	A. Yes, I have.
2	MS. MUNDS-DRY: Mr. Examiner, we would tender Mr.
3	Robertson as an expert in petroleum engineering.
4	EXAMINER EZEANYIM: Mr. Robertson is so
5	qualified.
6	Q. (by Ms. Munds-Dry) Mr. Robertson, if you would
7	briefly summarize for the Examiner what EOG seeks with this
8	Application.
9	A. Well, we are requesting an administrative
10	approval, or We are requesting authorization to complete
11	this Rhine 13 Federal well to be re-entered and recompleted
12	from the Wolfcamp formation, 1680 feet from the south line,
13	150 feet from the east line, in Section 13, Township 17
14	South, Range 24 East.
15	Q. And is it your understanding that this well
16	location is unorthodox?
17	A. Yes, it is.
18	Q. What rules, if you know, govern well spacing in
19	New Mexico?
20	A. Statewide rules, 320-acre gas well spacing, and
21	660-foot setbacks.
22	Q. So the location 150 feet from the east line would
23	be a little bit too close?
24	A. Yes.
25	Q. Okay. Let's discuss for the Examiner the history

6

1	of the Application first, so he understands how we got here
2	today. Could you please turn to EOG Exhibit Number 1 and
3	identify and review that for the Examiner?
4	A. Okay.
5	Q. It should be that first one on top there.
6	A. Right. All right, the
7	Q. Maybe two Maybe the first one you have
8	there
9	A. Oh, I'm sorry.
10	Q the letter.
11	A. The letter, yes.
12	Q. One more. That's the one.
13	A. Okay, sorry. Okay on 5-3-06 we requested
14	administrative approval, according to the Division Rule
15	104.F.(2), and that is this letter which is Exhibit 1.
16	Q. So that's a copy of the letter to Mr. Stogner,
17	signed by yours truly?
18	A. Yes.
19	Q. And if you would please turn to EOG Exhibit
20	Number 2 and review that for the Examiner.
21	A. Okay. Exhibit 2 is the response from Mr.
22	Stogner, and it's dated 5-19-06, denying EOG's Application.
23	Q. And did he state certain concerns in the letter,
24	why he wouldn't approve this administratively?
25	A. Yes, he did. The first concern was that the well

_	
1	was drilled 10 months ago, only 150 feet from the boundary
2	of the spacing unit, and no location exception was
3	requested at that time.
4	Number two, no support data for BLM request to
5	move the location for topographic concerns.
6	And three, classifying the well as a monitor well
7	subjected into Division stratigraphic test hole policy.
8	Q. And we'll attempt to address those concerns for
9	the Examiner today, but as a result of this denial did EOG
10	then bring this Application for hearing?
11	A. Yes.
12	Q. If you would please turn to EOG Exhibit Number 3,
13	and let's review the history of the subject well for the
14	Examiner.
15	A. Okay. The well was spudded on July 22nd, 2005,
16	the vertical hole was completed on August 3rd, 2005. This
17	well was originally planned as a proposed horizontal
18	Wolfcamp test.
19	Q. And this well was originally drilled as a
20	potential producing well?
21	A. Yes, it was, not just for monitoring.
22	Q. If you could explain the monitoring of this well,
23	what it was utilized for.
24	A. Okay, this well was first used the vertical
25	wellbore was first used to monitor our frac job on an

1	adjacent well in the adjacent section, Yukon 18 Fed Com
2	Number 1H, which is why it was drilled 150 feet from the
3	boundary line.
4	EXAMINER EZEANYIM: Can you repeat that, please?
5	THE WITNESS: Sure. We first utilized the well
6	as a monitoring well to monitor the frac job. We used
7	what's called micro-seismic monitoring, where they put
8	geofoams in the vertical wellbore and then listen for the
9	rock breaking along the horizontal wellbore. And by doing
10	that, they can locate where the fractures are occurring and
11	how evenly spaced the fractures are occurring along the
12	horizontal wellbore. And so that was the purpose of
13	putting this well at 150 feet from the line.
14	And then after that, the intent was to go uphole,
15	kick off with our horizontal wellbore, and complete the
16	horizontal well, the Rhine horizontal well, at a legal
17	location. The actual completion would have been 660 feet
18	from the lease line, or more.
19	Q. (by Ms. Munds-Dry) And Mr. Robertson, is that
20	your understanding why a nonstandard location approval was
21	not sought at that time?
22	A. That is correct.
23	Q. Now in Mr. Stogner's letter he also was concerned
24	that we had not provided any support as to why the BLM had
25	wanted us to move the location because of topographical
-	

1	concerns. Does EOG have further information about that,
2	the BLM location at this time, or the BLM request at this
3	time?
4	A. We believe that That was not the main reason
5	for moving the well 150 feet from the line. That was a
6	minor shift in the well, so that
7	Q. That was only a minor adjustment in the location?
8	A. Right, right.
9	Q. But it's your understanding that that didn't
10	change why it was originally drilled at the 150-foot
11	location?
12	A. That's correct, that's correct.
13	Q. And when was the Yukon well to the west there
14	flooded? Or to the east, pardon me.
15	A. To the east, yeah. It was spudded on August 3rd,
16	2005.
17	Q. And do you know when that frac was conducted?
18	A. Yeah, it was conducted on October 2nd, 2005.
19	Q. And what were the results of studying that well?
20	A. That well was not a very good well in terms of
21	production rate for the cost of the well, and also the
22	thickness of the formation at that location was
23	considerably less than we expected. So therefore we term
24	this not a good well, economically speaking.
25	Q. And that study of the Yukon well, how did that

_	
1	affect EOG's plans for drilling of the Rhine well?
2	A. We decided that it would be uneconomic to drill
3	the horizontal leg of the Rhine well and to stimulate it as
4	a horizontal.
5	Q. Thank you, Mr. Robertson. If you would please
6	turn to EOG Exhibit Number 4 and identify and review that
7	for the Examiner.
8	A. Okay, this is a Form C-102 for the Rhine well,
9	and this shows the permitted location and well plan for the
10	Rhine well where you can note the 150-foot location of
11	the vertical wellbore, and then kick off to a legal
12	location, and then going horizontal for about 3900 feet to
13	the west, and also terminating the well at a legal
14	location.
15	So the producing portion of the well will be
16	or would have been in a legal location, and the original
17	plan all along was to drill this horizontal well.
18	Q. And this again just confirms that EOG had planned
19	to use this as a producing well?
20	A. That is correct.
21	Q. What is EOG Exhibit Number 5?
22	A. This is just a map view of the well locations,
23	which is a little easier to see where the wells of interest
24	are located. You can see in Section 13 the Rhine vertical
25	wellbore is near the section line. And in Section 18 the

1	Yukon wellbore is a south-to-north the Yukon well is a
2	south-to-north horizontal well.
3	Q. And it also looks as if there were additional
4	wells in Section 14?
5	A. Yes, the Danube Well Number 2H is a horizontal
6	well, drilled in Section 14. And it also was an
7	unfavorable well log and producing well. In other words,
8	this entire area of the reservoir rock is thin and
9	uneconomic for horizontal wells.
10	Q. Turn to EOG Exhibit Number 6 and review that for
11	the Examiner.
12	A. This shows the actual daily or monthly
13	averages of the daily production rate for the Yukon well in
14	dark blue, and for the Danube well in pink squares. And so
15	you can see the initial production rate of the Yukon well
16	was 600 MCF per day, and it has declined since the
17	beginning down to less than 300 MCF per day, as of now.
18	The Danube well, initial production rate was a little over
19	300 MCF per day and has declined down to about 160 MCF per
20	day. And these rates are non-economic, considering the
21	cost of the vertical and horizontal wellbores, and also the
22	stimulation cost.
23	Q. Please turn to EOG Exhibit Number 7 and identify
24	that for the Examiner.
25	A. This Exhibit is a well log showing the Rhine 13
I	

.

1	Fed Number 1 log traces. The one log trace of most
2	interest here is the density porosity log trace, which is
3	DPHZ, and anything above a density porosity of zero has
4	been colored in with orange there, and that's what we use
5	as kind of an indicator of reservoir pay. And you can see
6	on this we only have about 10 feet of reservoir pay colored
7	in throughout the whole Wolfcamp zone there.
8	So normally, to get an economic well we're
9	looking to have at least 30 feet of pay, and this just
10	verifies that we do not have adequate pay in this area for
11	a horizontal well.
12	Q. If you will then turn to Exhibit Number 8 and
13	review that for the Examiner?
14	A. Okay, these are some economics that I ran on the
15	Rhine 13 Fed Number 1 well, both a time forward economics
16	for the horizontal well, stimulation or drilling and
17	stimulation and the vertical well stimulation.
18	The first table there shows the unrisked
19	economics, and you can see that the horizontal well has a
20	negative present worth of minus \$28,000, whereas if we were
21	to stimulate the vertical well, it would have a positive
22	present worth of \$241,000.
23	And the second part of the table, if we risk the
24	economics, assuming there is some risk involved in drilling
25	a horizontal well, getting stuck, that type of thing, here

we have present worth of minus \$327,000 for the horizontal 1 well and a positive present worth of \$145,000 for 2 stimulating the vertical well. 3 Mr. Robertson, what conclusions, then, have you ο. 4 reached from your engineering study of the Rhine and the 5 wells to the east and west of this location? 6 Basically, that this is a thin part of our 7 Α. reservoir, not going to be economic to drill horizontal 8 wellbores and stimulate them here. But since we already 9 have a vertical wellbore drilled, the incremental cost for 10 stimulating the vertical well is relatively small, and so 11 that can be done economically and make productive use of 12 that vertical wellbore. 13 What will the impact be on the correlative rights 14 ο. 15 of EOG if this Application is denied? 16 Α. We would be denied the opportunity to efficiently 17 recover the reserves under this spacing unit. Will approval of this Application impair the 18 Q. correlative rights of any other operators in the offsetting 19 20 spacing units? Α. 21 No, because we have the rights in the offsetting spacing unit. 22 23 Will approval of this Application be in the best Q. 24 interest of conservation and the prevention of waste? 25 Yes, it will be. Α.

STEVEN T. BRENNER, CCR (505) 989-9317

14

_	
1	Q. If you will please turn to Exhibit Number 9 and
2	review for the Examiner this exhibit.
3	A. Okay, this is the land map which shows in Section
4	13, in the south half of this section. The federal lease
5	there is owned 100 percent by EOG. Immediately adjacent to
6	that in the west half of Section 18 of 17 South, 25 East,
7	is a federal lease, also owned 100 percent by EOG.
8	Q. And as I believe you just stated, then the
9	offsetting operator in Section 18 is EOG?
10	A. Yes, it is.
11	Q. So EOG is encroaching on itself?
12	A. Yes.
13	Q. Additionally, that means that there was no one to
14	notify of this Application?
15	A. That is correct.
16	Q. Is EOG Exhibit Number 10 an affidavit of
17	publication?
18	A. Yes, it is.
19	Q. Were EOG Exhibits 1 through 10 prepared by you or
20	compiled under your supervision?
21	A. Yes, they were.
22	MS. MUNDS-DRY: Mr. Examiner, we would move the
23	admission of Exhibits Number 1 through 10 into evidence.
24	EXAMINER EZEANYIM: Exhibits 1 through 10 will be
25	admitted into evidence.

MS. MUNDS-DRY: And I have no further questions 1 of Mr. Robertson. 2 EXAMINER EZEANYIM: Thank you, Ms. Munds. 3 Ouestions? 4 MS. MacQUESTEN: No questions, thank you. 5 EXAMINATION 6 BY EXAMINER EZEANYIM: 7 Okay, let's go back with that Exhibit Number 8. 8 Q. Uh-huh. 9 Α. First of all, this is a good -- How do you 10 Q. 11 describe risked and unrisked economics? Okay, when you apply risked economics, you're Α. 12 basically multiplying, in this case, .7 times your actual 13 volumes produced, that you're predicting to produce. And 14 say -- But you're still spending the same amount of money 15 up front, so you're basically saying -- probability-wise, 16 you know, there's this 70-percent factor that you may not 17 get your desired economic return. 18 19 Okay, that was -- it's just a number, you just Q. 20 have --21 Α. It's just a number, right, it's relatively low --22 you know, not a very highly risked amount but there is some 23 risk in going horizontal and getting stuck and not getting 24 your desired result. 25 Q. So if I multiply 241 by .7 I get 145?

A. Right.
Q. Okay. Now
A. Well
Q why do you choose to do that? I mean, why do
you want to demonstrate it that way? I just want to
understand.
A. Actually, what you just said probably isn't
exactly correct. Those are the numbers that come out of
the economics program that we run
Q. Okay.
A when we put in this risk factor.
Q. Okay.
A. For example, if we have a wildcat well we would
risk it with a 25-percent or less risk factor, according to
the guidelines, because of the chance of not hitting the
formation that's desired.
In this case, when we're drilling a horizontal
well, occasionally we may have a broke you know, a stuck
pipe and lose the hole. And so there is a possibility that
we will not be able to complete the well, despite spending
a considerable amount of funds. So therefore for our own
purposes we usually apply a risk factor to evaluate the
economics.
Q. How did you estimate the ultimate recovery? What
method did you use?

STEVEN T. BRENNER, CCR (505) 989-9317

~~~~

| 1  | Α.        | Ultimate recovery was based on decline curves of |
|----|-----------|--------------------------------------------------|
| 2  | the surro | ounding wells, and mainly the Yukon well.        |
| 3  | Q.        | And this is on Federal Number 1. Okay, I'll come |
| 4  | back to t | chat.                                            |
| 5  |           | If you go to Exhibit Number 9, about the EOG     |
| 6  | owning th | ne whole of Section 18                           |
| 7  | Α.        | Uh-huh.                                          |
| 8  | Q.        | and all of the south half of 13, is ownership    |
| 9  | truly ide | entical? There is no                             |
| 10 | Α.        | Right.                                           |
| 11 | Q.        | it's all owned 100 percent by                    |
| 12 | А.        | Right.                                           |
| 13 | Q.        | EOG?                                             |
| 14 | Α.        | Yes, and mineral ownership is identical.         |
| 15 | Q.        | In all respects?                                 |
| 16 | А.        | Right, royalty ownership is identical.           |
| 17 | Q.        | So actually there's nobody to no overriding,     |
| 18 | no        |                                                  |
| 19 | Α.        | Right, that is correct, yeah.                    |
| 20 | Q.        | The production history on your Exhibit Number 6, |
| 21 | for that  | Yukon, which formation what formation are they   |
| 22 | producing | g from?                                          |
| 23 | Α.        | The Wolfcamp.                                    |
| 24 | Q.        | Oh, is that Wolfcamp?                            |
| 25 | Α.        | Yes.                                             |
|    |           |                                                  |

| 1  | Q. Both of them?                                           |
|----|------------------------------------------------------------|
| 2  | A. Yes, both of them, these are all going after the        |
| 3  | same, identical formation.                                 |
| 4  | Q. Okay. What is the actual number of this well?           |
| 5  | Is that Rhine 13 Federal Number 1 or Number 1H? I tried to |
| 6  | do a search in our well files. Sometimes it says Number 1, |
| 7  | sometimes it says Number 1H. Is the well the Number 1 or   |
| 8  | Number 1H? I mean, I get conflicting information from the  |
| 9  | well files.                                                |
| 10 | A. Let's see, I believe it's specified Number 1H in        |
| 11 | our permit, so that would be the legal description.        |
| 12 | Q. Okay, yeah, I see here it says Number 1H.               |
| 13 | A. Yes.                                                    |
| 14 | MS. MUNDS-DRY: And Mr. Examiner, we may need to            |
| 15 | correct the well name, since it won't will no longer be    |
| 16 | a horizontal well. So we'll make sure that EOG             |
| 17 | EXAMINER EZEANYIM: Okay.                                   |
| 18 | MS. MUNDS-DRY: corrects that.                              |
| 19 | Q. (By Examiner Ezeanyim) Oh, yeah, you wanted to          |
| 20 | have it 1H, so okay.                                       |
| 21 | A. Right, that's right.                                    |
| 22 | Q. That's why okay, now, that's why we are using           |
| 23 | them interchangeably, okay.                                |
| 24 | I notice that you obtained an APD from BLM, you            |
| 25 | know, but you didn't from the State because and that's     |
| •  |                                                            |

| 1  | one of the questions I have here, is, you thought you were |
|----|------------------------------------------------------------|
| 2  | going to drill horizontally to a standard location?        |
| 3  | A. Yes.                                                    |
| 4  | Q. And so if I get you right So the well was               |
| 5  | initially drilled as both a monitor well and also a        |
| 6  | producing well?                                            |
| 7  | A. Yes, it was.                                            |
| 8  | Q. With the intent of drilling horizontally to a           |
| 9  | standard location?                                         |
| 10 | A. Yes.                                                    |
| 11 | Q. Therefore you don't need to come to OCD to get          |
| 12 | any NSL approval?                                          |
| 13 | A. That's correct, yes.                                    |
| 14 | Q. Okay, this is the question that I was raising,          |
| 15 | the rejection letter about the BLM wanting you to, you     |
| 16 | know, move this well from a standard location where you    |
| 17 | want it to the surface standard location, to this          |
| 18 | nonstandard location, even though you are going to drill   |
| 19 | horizontally to a standard location. Why did BLM tell you  |
| 20 | to move it to that nonstandard location?                   |
| 21 | A. Actually, they were just wanting us to move just        |
| 22 | slightly not to the extent that we moved it, but just a    |
| 23 | little bit; I don't know the exact amount so that          |
| 24 | because of topographic concerns. So their request was not  |
| 25 | the reason the well was moved to this location.            |

| -  |                                                            |
|----|------------------------------------------------------------|
| 1  | Q. Okay, it wasn't the real reason?                        |
| 2  | A. It wasn't the real reason.                              |
| 3  | MS. MUNDS-DRY: Mr. Examiner, the land department           |
| 4  | at EOG had originally understood that that was part of the |
| 5  | reason. They have since learned that the 150-foot location |
| 6  | didn't have anything really to do with the BLM request. It |
| 7  | moved it a little bit, but that wasn't the main            |
| 8  | determination.                                             |
| 9  | Q. (By Examiner Ezeanyim) Well, I can understand if        |
| 10 | your intention is to go to a standard location, well, you  |
| 11 | know, it wouldn't                                          |
| 12 | A. Yes.                                                    |
| 13 | Q. You know, and if you had wanted to go to a              |
| 14 | standard location, I think it's worthwhile for you to have |
| 15 | obtained an APD. Do you have an APD from the OCD, from the |
| 16 | District, that you are going to drill this well?           |
| 17 | If your intent is to drill horizontally to that            |
| 18 | standard location and therefore you If you don't want to   |
| 19 | get an NSL, because you are going to be at a standard      |
| 20 | location, why didn't you get an APD from us? You know,     |
| 21 | because if you are going to demonstrate that you are going |
| 22 | to complete in a standard location So I was wondering      |
| 23 | why you didn't get an APD, because as you know, if BLM has |
| 24 | given you an approval                                      |
| 25 | A. Uh-huh.                                                 |
|    |                                                            |

| _  |                                                            |
|----|------------------------------------------------------------|
| 1  | Q it's contingent on the State approving it too.           |
| 2  | A. Uh-huh.                                                 |
| 3  | Q. So I expected you If your intention, as you             |
| 4  | say, is a monitor well, a producing well, you could have   |
| 5  | gotten an APD from the State saying that you are going to  |
| 6  | drill this well and demonstrate that you are going to      |
| 7  | complete in a standard location. Not really the to come    |
| 8  | here, even though your surface location is nonstandard. So |
| 9  | I expected you to get it. But I searched, I didn't get any |
| 10 | APD                                                        |
| 11 | MS. MUNDS-DRY: Mr. Examiner                                |
| 12 | EXAMINER EZEANYIM: from you guys.                          |
| 13 | MS. MUNDS-DRY: my understanding and I may                  |
| 14 | be wrong about this is that because it's federal land      |
| 15 | they received an APD from the BLM, and they filed their    |
| 16 | C-102 with the OCD. But I do not believe they because      |
| 17 | it was a standard location originally as intended that     |
| 18 | they needed to obtain an APD from the OCD. That's my       |
| 19 | understanding, because they had because it's federal       |
| 20 | land here.                                                 |
| 21 | EXAMINER EZEANYIM: Yeah, I know, but here it               |
| 22 | says subject to approval by the State.                     |
| 23 | MS. MUNDS-DRY: Sure.                                       |
| 24 | EXAMINER EZEANYIM: And I expected you to have              |
| 25 | gotten an APD maybe at that point. At least it's something |
|    |                                                            |

| 1  | to have had on your this is their website, and when I       |
|----|-------------------------------------------------------------|
| 2  | was looking at it I didn't see any APD from the State.      |
| 3  | And that goes toward your argument that you                 |
| 4  | wanted this well to be both a monitor and also a producing  |
| 5  | well. You know, because say if you go to that attachment    |
| 6  | that Mike gave you                                          |
| 7  | MS. MUNDS-DRY: Uh-huh.                                      |
| 8  | EXAMINER EZEANYIM: about stratigraphic test                 |
| 9  | hole                                                        |
| 10 | MS. MUNDS-DRY: Uh-huh.                                      |
| 11 | EXAMINER EZEANYIM: you are never, you know,                 |
| 12 | according to that policy, supposed to use that well as a    |
| 13 | producing well, according to what that policy says.         |
| 14 | MS. MUNDS-DRY: And Mr. Examiner, I hope that                |
| 15 | from Mr. Robertson's testimony we would argue that that     |
| 16 | policy doesn't apply because, as we read it, that policy    |
| 17 | only applies if it's intended to be a monitor well only.    |
| 18 | And this well, of course, was intended to be a producing    |
| 19 | well. So it would be our position that that policy          |
| 20 | wouldn't apply here because it was, in fact, intended to be |
| 21 | a producing well in the end.                                |
| 22 | EXAMINER EZEANYIM: Yeah, very good. That's a                |
| 23 | good point, I understand that. That's why I said you        |
| 24 | should have gotten an APD                                   |
| 25 | MS. MUNDS-DRY: Sure.                                        |

EXAMINER EZEANYIM: -- from us. I mean, I think 1 you have to get an APD from both the BLM and the State. 2 It's a federal mineral. And then you've got an APD. We 3 also have, you know, the authority to issue an APD to you. 4 MS. MUNDS-DRY: Sure, and we can certainly do 5 that and make sure that the --6 EXAMINER EZEANYIM: Okay. 7 MS. MUNDS-DRY: -- appropriate people in the 8 regulatory department do, in fact, submit for an 9 application. 10 EXAMINER EZEANYIM: So do I take it it's an 11 oversight, or what? You know, you didn't get an APD, or 12 just -- BLM had just approved it, therefore go ahead and 13 drill? 14 15 MS. MUNDS-DRY: And I'm not sure I know, Mr. Examiner. 16 17 Q. (By Examiner Ezeanyim) What is the depth of this 18 well, do you know, in the Wolfcamp? Yeah, on the exhibit you will see the depth shown 19 Α. 20 there. 21 Oh, on the --Q. 22 Α. On this well log you can see that --23 Q. Yeah. 24 -- the measured depth is about 5000 feet, down to Α. 25 about 5100.

| 1  | Q. So you just did only the newspaper advertisement,       |
|----|------------------------------------------------------------|
| 2  | no notification, because nobody to notify because, as      |
| 3  | you stated here, that all you know, the ownership is       |
| 4  | identical in all respects?                                 |
| 5  | A. That is correct, yes.                                   |
| 6  | Q. And your I saw something that I think that              |
| 7  | I don't know how that came into that a letter here.        |
| 8  | It says "Administrative Order NSL-". There's no number.    |
| 9  | How did it come about that who It wasn't                   |
| 10 | signed by anybody. How did it come here if there was       |
| 11 | but there was this letter, and you are I saw this in the   |
| 12 | well file, but I didn't understand that. What is this      |
| 13 | doing here?                                                |
| 14 | MS. MUNDS-DRY: Oh, I believe that was included.            |
| 15 | It probably didn't really need to be. It was just a part   |
| 16 | of the administrative application, Mr. Examiner, that as a |
| 17 | practice we include just a draft administrative order, and |
| 18 | that's really just to a notice a part of the               |
| 19 | application.                                               |
| 20 | EXAMINER EZEANYIM: Okay, it wasn't But how do              |
| 21 | you get it? Did you get it from the well file?             |
| 22 | MS. MUNDS-DRY: No, we submit that draft order              |
| 23 | EXAMINER EZEANYIM: Oh, you submit it                       |
| 24 | MS. MUNDS-DRY: to Mr. Stogner, as a part of                |
| 25 | our Application.                                           |
| -  |                                                            |

EXAMINER EZEANYIM: Oh, okay, okay. I thought it 1 2 was --MS. MUNDS-DRY: Sorry, I didn't mean to confuse 3 4 you. EXAMINER EZEANYIM: All right, it was confusing 5 to me, I didn't know. Okay, that answers that question. 6 Anything further? 7 MS. MUNDS-DRY: Nothing further. 8 EXAMINER EZEANYIM: At this point, Case Number 9 10 13,741 will be taken under advisement. 11 MS. MUNDS-DRY: Thank you, Mr. Examiner. 12 EXAMINER EZEANYIM: Thank you very much. THE WITNESS: Thank you. 13 14 EXAMINER EZEANYIM: Okay, at this time we'll take 15 about a 10-minute break and then go to the next case. 16 (Thereupon, these proceedings were concluded at 17 9:28 a.m.) 18 \* \* \* 19 i de hereby certify that the foregoing to 20 a complete record of the procaedings in the Examiner hearing of 21 heard by me on 22 , Examiner Concervation Division 23 24 25

### 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 July 8th, 2006.

Dive

STEVEN T. BRENNER CCR No. 7

My commission expires: October 16th, 2006

STEVEN T. BRENNER, CCR (505) 989-9317 27