

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:

ORIGINAL

APPLICATION OF COG OPERATING, LLC  
TO MAKE PERMANENT THE SPECIAL RULES  
ADOPTED UNDER ORDER R-13523 FOR THE  
DODD-GLORIETA-UPPER YESO POOL AND  
THE BURCH KEELY-GLORIETA-UPPER YESO  
POOL, EDDY COUNTY, NEW MEXICO.

CASE NOS. 14669,  
14670, 14758  
and 14759

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

October 2, 2014

Santa Fe, New Mexico

BEFORE: PHILLIP GOETZE, CHIEF EXAMINER  
GABRIEL WADE, LEGAL EXAMINER

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This matter came on for hearing before the  
New Mexico Oil Conservation Division, Phillip Goetze,  
Chief Examiner, and Gabriel Wade, Legal Examiner, on  
Thursday, October 2, 2014, at the New Mexico Energy,  
Minerals and Natural Resources Department, Wendell Chino  
Building, 1220 South St. Francis Drive, Porter Hall,  
Room 102, Santa Fe, New Mexico.

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1	INDEX	
2		PAGE
3	Case Numbers 14669, 14670, 14758 and 14759 Called	3
4	Opening Statement by Ms. Gerholt	5
5	COG Operating, LLC's Case-in-Chief:	
6	Witnesses:	
7	Dylan Park:	
8	Direct Examination by Ms. Gerholt	6
9	Cross-Examination by Examiner Goetze	11
10	Cody Bacon:	
11	Direct Examination by Ms. Gerholt	12
12	Cross-Examination by Examiner Goetze	19
13	Chris N. Bezner:	
14	Direct Examination by Ms. Gerholt	20
15	Cross-Examination by Examiner Goetze	31
16	Proceedings Conclude	33
17	Certificate of Court Reporter	34
18	EXHIBITS OFFERED AND ADMITTED	
19	COG Operating, LLC Exhibit Numbers 1 through 4	11
20	COG Operating, LLC Exhibit Numbers 5 through 13	19
21	COG Operating, LLC Exhibit Numbers 14 through 21	31
22		
23		
24		
25		

1 (8:18 a.m.)

2 EXAMINER GOETZE: We'll start with Case  
3 Numbers 14669, 14670, 14758 and 14759 reopened,  
4 application of COG Operating, LLC to make permanent the  
5 Special Rules adopted under Order R-13523 for the  
6 Dodd-Glorieta-Upper Yeso pool and the Burch Keely-  
7 Glorieta-Upper Yeso pool, Eddy County, New Mexico.

8 Call for appearances.

9 MS. GERHOLT: Good morning, Mr. Examiner.  
10 Gabrielle Gerholt, from the Santa Fe office of Holland &  
11 Hart, on behalf of COG Operating, LLC.

12 EXAMINER GOETZE: Any other appearances?

13 MR. BRUCE: Mr. Examiner, Jim Bruce  
14 presenting ConocoPhillips Company. I have no witnesses.

15 EXAMINER GOETZE: Very good.

16 MS. GERHOLT: Mr. Examiner, COG has three  
17 witnesses this morning.

18 EXAMINER GOETZE: Would the witnesses  
19 please stand, identify yourself to the court reporter  
20 and be sworn in?

21 MR. PARK: My name is Dylan Park. I'll be  
22 representing COG on the land side.

23 MR. BEZNER: My name is Chris Bezner. I'm  
24 a reservoir engineering for COG.

25 MR. BACON: Cody Bacon, and I'm with COG as

1 a geologist.

2 MS. GERHOLT: Mr. Examiners, if I may  
3 approach to hand you the exhibits.

4 EXAMINER GOETZE: You may.

5 OPENING STATEMENT

6 MS. GERHOLT: Mr. Examiners, before I call  
7 my first witness, I just wanted to remind the Division a  
8 little bit about this case, since it's been a couple of  
9 years since we've been here.

10 COG is here today to request that the  
11 Division make the special pool rules for the  
12 Dodd-Glorieta-Upper Yeso pool and the Burch  
13 Keely-Glorieta-Upper Yeso pool permanent. They have  
14 been in place since 2012, and COG has been successfully  
15 operating under those rules since that time.

16 Today you will hear evidence that supports  
17 the allowable of 300 barrels of oil, the limiting  
18 gas-oil ratio of 3,000 and that the well density of the  
19 four vertical wells and the seven vertical wells will  
20 allow for effective and efficient drainage.

21 So at this time I would call my first  
22 witness, Dylan Park.

23 DYLAN PARK,  
24 after having been previously sworn under oath, was  
25 questioned and testified as follows:

DIRECT EXAMINATION

1 BY MS. GERHOLT:

2 Q. Good morning, Mr. Park.

3 A. Good morning.

4 Q. Would you please state your full name for the  
5 record?

6 A. My name is Dylan Park.

7 Q. And by whom are you employed and in what  
8 capacity?

9 A. COG Operating, LLC as a senior landman.

10 Q. And as a senior landman, what are your duties?

11 A. I negotiate a lot of gas leases, joint  
12 operating agreements, put deals together with the  
13 partners, prepare locations for drilling from an  
14 ownership title standpoint.

15 Q. Mr. Park, do you have a particular land area of  
16 responsibility?

17 A. I handle portions of the northwest shelf, Eddy  
18 County, New Mexico.

19 Q. And does that land area include the Dodd and  
20 Burch Keely Units?

21 A. Yes, it does.

22 Q. Have you previously testified before the Oil  
23 Conservation Division?

24 A. No, I have not.

1 Q. Would you then please tell the Examiners a  
2 little bit about your educational and work experiences  
3 as they relate to being a landman?

4 A. Sure. I graduated from the University of  
5 Houston in 1997 with a bachelor of science degree in  
6 American Jurisprudence and Business. I spent the next  
7 approximately 11 years doing oil and gas due diligence  
8 for acquisitions and divestitures for law firms around  
9 the Houston area. I then went in-house with Apache  
10 Corporation in 2008 doing the same type of work. I was  
11 then transferred in 2009 to Apache's Midland Office and  
12 became a regional landman handling areas of New Mexico  
13 doing the same type of work I do now. I recently came  
14 on board with Concho.

15 Q. Mr. Parks, approximately how long have you been  
16 a landman?

17 A. Five years, technically speaking, but I've been  
18 doing that type of work from an A and D perspective for  
19 probably 15 -- close to 15 years.

20 Q. Are you familiar with the application filed on  
21 behalf of COG?

22 A. Yes, I am.

23 Q. And are you familiar with the status of the  
24 lands in the Burch Keely and Dodd Units?

25 A. Yes.

1 MS. GERHOLT: Mr. Examiner, I'd ask that  
2 Mr. Park be deemed an expert in petroleum land matters.

3 EXAMINER GOETZE: He is so qualified.

4 MS. GERHOLT: Thank you.

5 Q. (BY MS. GERHOLT) Since it's been a couple of  
6 years since COG has been here, have you prepared a  
7 couple of slides to help refresh our memories with the  
8 location of these units and the type of units at issue?

9 A. Yes.

10 Q. If we can start by drawing your attention to  
11 Exhibit Number 1. Would you please identify what this  
12 is and review it?

13 A. Exhibit Number 1 is a high-level profile of the  
14 area in which the Burch Keely Unit and the Dodd Federal  
15 Unit are situated. And as you can see in the purple  
16 outline, the Dodd Federal Unit covers portions of the  
17 sections in 17 South, 29 East. The Burch Keely Unit  
18 also covers portion of 17-29 and 17-30.

19 Q. Now, beginning with the Dodd Unit, what type of  
20 unit is it?

21 A. The Dodd is a federal -- a federal secondary  
22 discovery [sic] unit.

23 Q. And to what depth does that unitized interval  
24 extend?

25 A. It extends from the Seven Rivers to the -- to



1 approximately 5,000 feet -- to 5,000 feet.

2 Q. And within the Dodd Federal Unit, is COG  
3 producing from the Dodd-Glorieta-Upper Yeso pool?

4 A. That is correct.

5 Q. Now drawing your attention to the Burch Keely  
6 Unit, what type of unit is it?

7 A. It is also a federal secondary recovery unit.

8 Q. To what depth does that unitized unit extend?

9 A. It extends from the Seven Rivers to 5,000 feet.

10 Q. And within the Burch Keely Unit, is COG  
11 producing from the Burch Keely-Glorieta-Upper Yeso pool?

12 A. That is correct.

13 Q. Very good.

14 And the pool rules that are named came from  
15 the Dodd-Glorieta-Upper Yeso and the Burch  
16 Keely-Glorieta-Upper Yeso?

17 A. Yes, they are.

18 Q. Mr. Park, can you please briefly explain to the  
19 Examiners what COG is seeking in this application?

20 A. We're simply seeking to make the rules that  
21 were -- the temporary rules that were granted on March  
22 12th, 2012 permanent at this time.

23 Q. Very good.

24 If I could now draw your attention to  
25 Exhibit Number 2, would you please identify and review

1 this exhibit?

2 A. Yes. Exhibit Number 2 is just a color plat  
3 showing the operators that were notified -- the  
4 offsetting operators that were notified of this hearing.

5 Q. And this is for the Burch Keely?

6 A. Yes.

7 Q. And Exhibit Number 3?

8 A. Exhibit Number 3 simply is just, again, a color  
9 plat showing the offset operators that were notified of  
10 this hearing in the Dodd Unit.

11 Q. So for both the Dodd and Burch Keely notices  
12 were provided to offsetting operators?

13 A. Yes.

14 Q. Was that within the same formation?

15 A. Yes.

16 Q. And what was the radius?

17 A. One mile.

18 Q. And finally, if I could have you turn to  
19 Exhibit Number 4, is this the notice that my office  
20 provided to those offset operators?

21 A. Yes, it is.

22 Q. Mr. Park, in your opinion, will the granting of  
23 this application be in the best interest of conservation  
24 and the prevention of waste and the protection of  
25 correlative rights?

1 A. Yes, it will.

2 Q. Were Exhibits 1 through 3 prepared by you or  
3 compiled under your supervision?

4 A. Yes, they were.

5 MS. GERHOLT: Mr. Examiner, at this time I  
6 would move the admission of COG Exhibits 1 through 4  
7 into evidence.

8 EXAMINER GOETZE: 1 through 4 are so  
9 entered.

10 (COG Operating, LLC Exhibit Numbers 1  
11 through 4 were offered and admitted into  
12 evidence.)

13 MS. GERHOLT: And that concludes my  
14 examination of this witness.

15 EXAMINER GOETZE: Mr. Bruce?

16 MR. BRUCE: I have no questions.

17 EXAMINER GOETZE: Very good.

18 CROSS-EXAMINATION

19 BY EXAMINER GOETZE:

20 Q. Just a quick question. So since we initially  
21 did this order, to this point we still have the same  
22 ownership?

23 A. That's correct.

24 Q. We've had no changes in the units as far as  
25 anything from the BLM, change of acreage or anything

1     like that?

2           A.     No, sir.

3           Q.     Okay.   Very good.   Those are my only questions.

4                   EXAMINER GOETZE:   Thank you.

5                   MS. GERHOLT:   Thank you.

6                   Mr. Examiner, at this time, I would call  
7   Cody Bacon to the stand.

8                               CODY BACON,

9           after having been previously sworn under oath, was  
10   questioned and testified as follows:

11                               DIRECT EXAMINATION

12   BY MS. GERHOLT:

13           Q.     Good morning.   Would you please state your full  
14   name for the record?

15           A.     Cody Bacon.

16           Q.     By whom are you employed and in what capacity?

17           A.     COG Operating as a geologist.

18           Q.     And how long have you been employed by COG?

19           A.     Just under two years.

20           Q.     Have you previously testified before the Oil  
21   Conservation Division?

22           A.     I have not.

23           Q.     Would you please provide the Examiners a brief  
24   rundown of your educational and experience pertinent to  
25   being a geologist?

1       A.     Sure.  In 2010, I received my bachelor's in  
2     geology from Oklahoma State University, and then in  
3     2012, I received my master's in geology with an emphasis  
4     in petroleum geology from Oklahoma State University.

5       Q.     Are you familiar with the application filed in  
6     these cases?

7       A.     I am.

8       Q.     And are you familiar with the geology  
9     underlying the lands that are the subject of these  
10    cases?

11      A.     I am.

12               MS. GERHOLT:  Mr. Examiner, I would ask  
13    that Mr. Bacon be deemed an expert as a petroleum  
14    geologist based upon his education and experience.

15               EXAMINER GOETZE:  Is Mr. Bruce moving  
16    around here somewhere?

17               MR. BRUCE:  No objection.

18               EXAMINER GOETZE:  Very good.

19               He is so qualified.

20               MS. GERHOLT:  Thank you.

21      Q.     (BY MS. GERHOLT) Now, Mr. Bacon, if I could  
22    draw your attention to Exhibit Number 5, will you please  
23    get us situated with this exhibit?

24      A.     This is a map showing the greater Permian  
25    Basin, and towards the top, center of the slide, you'll

1 see a red arrow. This is showing the approximate  
2 location on the northwest shelf that we are talking  
3 about.

4 Q. Okay. Now moving towards Exhibit Number 6,  
5 which formations are at issue in this application?

6 A. The formations at issue are the Paddock and  
7 Blinebry. And you'll see a red bracket near the center  
8 of the slide, and that is showing the Yeso group, of  
9 which the Paddock and Blinebry are producing formations  
10 in the area.

11 Q. Anything else on this exhibit that needs to be  
12 identified? If not, we can move forward to Exhibit  
13 Number 7.

14 A. I don't believe so.

15 Q. All right. Now drawing your attention to  
16 Exhibit Number 7, would you please identify and review  
17 this?

18 A. Yes. This is a map showing the vertical Yeso  
19 development from all operators across the shelf area.  
20 The yellow indicates COG acreage. And if you look to  
21 the left half of the map, you'll see the purple Dodd  
22 Federal Unit outlined and the blue Burch Keely Unit  
23 outlined. And then turning your attention to the  
24 bottom, right corner that shows the map legend, the red  
25 dots indicate Paddock producers. The blue dots indicate

1 Blinebry producers, and then the combination  
2 blue-and-red dots are the Yeso producers.

3 Q. Moving on to Exhibit 8, what does Exhibit 8  
4 identify?

5 A. Exhibit 8 is the same as the previous slide,  
6 except instead of showing the vertical Yeso wells, this  
7 is showing all horizontal wells from all operators  
8 across the shelf.

9 Q. And, again, the yellow identifies COG acreage?

10 A. Correct.

11 Q. Now moving to Exhibit Number 10, will you  
12 please walk us through this structure map?

13 A. Exhibit 10?

14 Q. Number 9. I apologize.

15 A. Okay. That's all right.

16 Q. I was looking at the wrong tab. I'm moving  
17 along too quickly.

18 A. This is the exact same map as previously seen,  
19 except instead of displaying wells, it is showing a Yeso  
20 structure map. This structure map is on the top of the  
21 Paddock Formation, and it shows a general west-to-east  
22 dip. And in the south-central part of the map, you will  
23 see a tightening of contours. This is indicative of the  
24 addition of the Yeso shelf edge.

25 Q. Are there any structural changes?

1 A. No, ma'am.

2 Q. Now moving to Exhibit Number 10, would you  
3 please review and identify this exhibit?

4 A. Yes. This is a zoomed-in view of the Burch  
5 Keely Unit and the west-to-east cross section labeled A  
6 to A prime.

7 Q. And does Exhibit Number 10 and Exhibit Number  
8 11 correspond to one another?

9 A. They do. Exhibit Number 11 is the cross  
10 section, A and A prime that was seen on Exhibit 10, and  
11 it demonstrates the general west-to-east dip. The green  
12 is -- the green shading -- excuse me -- is the Paddock  
13 porosity. And the orange shading below it -- it's a  
14 little difficult to see, but it is the Blinebry. There  
15 is no significant thickening or thinning across the  
16 Burch Keely Unit, and there are no major structural  
17 changes.

18 Q. All right. And since that orange is a little  
19 difficult to identify on that, can you provide us some  
20 other reference point?

21 A. Yes. If you will look at the third well, the  
22 one in the center, you will see -- there's a green color  
23 that -- as it moves to the right and you see less and  
24 less of it, you'll see a black line moving across the --  
25 across the log. And then down at the bottom, you will



1 see a yellow line moving across the log, and that is the  
2 Blinebry Formation.

3 Q. All right. Thank you for providing that  
4 extra --

5 A. Yes.

6 Q. Now moving on to Exhibit Number 12, what is  
7 Exhibit Number 12?

8 A. Exhibit Number 12 is a zoomed-in view of the  
9 Dodd Federal Unit, and across it you will see a  
10 west-to-east cross section, B to B prime.

11 Q. All right. And does Exhibit Number 12 and  
12 Exhibit Number 13 correspond to one another?

13 A. They do. Exhibit Number 13 is the cross  
14 section seen on Exhibit Number 12. Again, this shows a  
15 structural cross section showing the general  
16 west-to-east dip. Again, the green shading is the  
17 Paddock porosity, and the orange that is not exactly  
18 visible is the Blinebry. There is no major change in  
19 gross thickness across the interval, and there are no  
20 major structural changes.

21 Q. All right. So would you say there is  
22 consistency across the Dodd units?

23 A. Yes, there is.

24 Q. Is there also geological consistency across the  
25 Burch Keely Unit?

1 A. There are.

2 Q. Are those two units geologically consistent?

3 A.. They are, as is the entire shelf.

4 Q. Okay. Are there any geologic impediments that  
5 would prevent COG from producing the allowable?

6 A. There are not.

7 Q. And in your opinion as a petroleum landman  
8 [sic], will the granting of this application be in the  
9 best interest of conservation, the prevention of waste  
10 and the protection of correlative rights?

11 A. Yes.

12 Q. Were Exhibits 5 through 13 prepared by you or  
13 under your supervision or control?

14 A. They were.

15 MS. GERHOLT: Mr. Examiner, at this time I  
16 would move the admission of COG Exhibits 5 through 13  
17 into evidence.

18 EXAMINER GOETZE: The exhibits are so  
19 entered.

20 And I assume that the opinion you did last  
21 was the petroleum geologist?

22 THE WITNESS: Yes, sir.

23 MS. GERHOLT: Thank you for the  
24 clarification.

25 EXAMINER GOETZE: Very well.

1 (COG Operating, LLC Exhibit Numbers 5  
2 through 13 were offered and admitted into  
3 evidence.)

4 MS. GERHOLT: That concludes my examination  
5 of this witness.

6 EXAMINER GOETZE: Mr. Bruce?

7 MR. BRUCE: No questions.

8 CROSS-EXAMINATION

9 BY EXAMINER GOETZE:

10 Q. So you have it in front of you. Let's take a  
11 look at Exhibit 12, and just for information, the  
12 majority of the wells show up as Paddock producers. We  
13 have a few Blinebry, and then we have Yeso producers.  
14 Am I assuming that just -- that both Blinebry and two  
15 productions zones are commingled or being produced  
16 together or --

17 A. In the Yeso wells?

18 Q. Yes.

19 A. Yes, sir. Those are a combination.

20 Q. Those are a combination.

21 And so at this time, the dominant player is  
22 Paddock for both of these units, correct?

23 A. Correct.

24 Q. And are we exploring the ability to expand that  
25 into the Blinebry, or is the scenario that the Blinebry

1 is not economical as far as producing as a single well?

2 A. The Blinebry is being produced horizontally in  
3 this area.

4 Q. Okay.

5 A. The Paddock wells were a previous pattern, and  
6 we are working around the patterns there.

7 Q. Okay. So you have an existing production out  
8 of Blinebry through later introduction of horizontal  
9 wells?

10 A. Yes, sir.

11 Q. And this is the shallowest. It's primarily  
12 going to be just Paddock?

13 A. Yes, sir.

14 Q. Okay. Thank you.

15 EXAMINER GOETZE: The remainder of my  
16 questions will probably be for your next witness, so I  
17 have no further questions. Thank you.

18 MS. GERHOLT: Well, then let's call my next  
19 witness, Mr. Bezner.

20 CHRIS N. BEZNER,  
21 after having been previously sworn under oath, was  
22 questioned and testified as follows:

23 DIRECT EXAMINATION

24 BY MS. GERHOLT:

25 Q. Good morning.

1 A. Morning.

2 Q. Please state your name for the record.

3 A. Chris Bezner.

4 Q. By whom are you employed and in what capacity?

5 A. COG Operating, and I'm a senior reservoir  
6 engineer.

7 Q. And how long have you been employed by COG?

8 A. About two-and-a-half years.

9 Q. Have you previously testified before the Oil  
10 Conservation Division?

11 A. Yes, I have.

12 Q. And at that time were your credentials as a  
13 reservoir engineer accepted?

14 A. Yes, they were.

15 Q. Are you familiar with the application filed in  
16 this case?

17 A. Yes, I am.

18 Q. And have you done an engineering study of the  
19 subject area?

20 A. Yes, I have.

21 Q. And I apologize. You may have said this  
22 already, but how long have you been a reservoir  
23 engineer?

24 A. Over 30 years.

25 MS. GERHOLT: Mr. Examiner, I would ask

1 that Mr. Bezner be deemed an expert as a reservoir  
2 engineer.

3 EXAMINER GOETZE: Mr. Bruce?

4 MR. BRUCE: No objection.

5 EXAMINER GOETZE: Very good. You are so  
6 qualified.

7 MS. GERHOLT: Thank you.

8 Q. (BY MS. GERHOLT) Drawing your attention to  
9 Exhibit Number 14, would you orient us to this exhibit,  
10 please?

11 A. Okay. This exhibit is just a picture trying to  
12 illustrate the way we view the Yeso Formation in this  
13 area, and what it's trying to show is the heterogenous  
14 nature of this formation. In other words, you see the  
15 shaded pieces of porosity down at the bottom of these  
16 two wells, labeled "Well A" and "Well B," intersect.  
17 The reservoir's heterogenous, meaning that the porosity  
18 just comes and goes. So you'll intersect the porosity  
19 interval that may be in one well, and the offset well is  
20 not really connected to that same interval but to a  
21 different porosity interval. This makes it very hard to  
22 correlate individual porosity developments, but one of  
23 the reasons that the current density that we're asking  
24 for -- the increased density is necessary in order to  
25 try and intercept as much porosity as possible and

1 effectively produce this reservoir. And it's trying to  
2 illustrate the basic lenticular nature of this -- of the  
3 Yeso Formation.

4 Q. Very good.

5 Now moving to Exhibit 15, what is Exhibit  
6 15?

7 A. This is a similar type picture, but we're  
8 looking down from above. And it has the same two wells,  
9 labeled "Well A" and "B," and then two other wells, C  
10 and D. And these would be four 10-acre wells in a  
11 40-acre proration unit.

12 The different colors, the shadings of black  
13 and gray, just show the different porosity intervals  
14 that are at different depths in the individual wells,  
15 and it's just trying to illustrate that the current  
16 density does a much more efficient job of intercepting  
17 many of these porosity pods, if you will. And that's  
18 why we're seeking this increased density.

19 Q. Moving to Exhibit 16 --

20 A. Okay.

21 Q. -- what does Exhibit 16 show?

22 A. Exhibit 16 is a depiction of what we're calling  
23 the original spacing of this field. In other words,  
24 when we took over operations roughly in 2006 from the  
25 previous operator, the wells had been drilled off

1 pattern. They had been drilled down to 10-acre spacing,  
2 but as you can see, each one of these squares is an  
3 individual regulatory proration unit.

4 Q. If I can interrupt you for one minute,  
5 Mr. Bezner.

6 A. Sure.

7 Q. You're saying each -- is 40 acres?

8 A. Yes.

9 And then it shows in different colors the  
10 general development, the way the wells have been  
11 drilled. So in a particular case, as you know, when you  
12 permit a well, it has to be in one proration unit or the  
13 other. So this is kind of an idealized case, but in  
14 actuality, these wells will be slightly one direction or  
15 the other to put them in a proration unit. And when  
16 that happens, you can see that you can have as many as  
17 six or seven wells in a particular proration unit, even  
18 though they're still basically on 10-acre spacing. And  
19 so that's what's happened to this field. And it's kind  
20 of something we inherited, but we're continuing to  
21 develop down to 10-acre spacing. And this slide and the  
22 next slide kind of go together.

23 Q. Let's move to the next slide then.

24 A. Okay. So what I've done is just taken these  
25 same wells and shifted the grid, if you will, of these



1 40-acre proration units to the southwest about 350 feet.  
2 So it's an idealized grid of 40-acre spacing that  
3 surrounds each well. So you can see the same wells, you  
4 know, if they had developed it correctly, you know, it  
5 would all be lined up nice and neat, but that's -- you  
6 know, we don't live in a perfect world, so this is what  
7 we have to live with. And, you know, it's one reason  
8 that we're asking for the seven wells per 40 in the  
9 Paddock Formation.

10 Q. Very good.

11 Now drawing your attention to Exhibit 18,  
12 what is that?

13 A. Yes. Exhibit 18 is an actual real-world  
14 example of where this problem came up, and it's just  
15 zooming into a portion of the Burch Keely Unit down in  
16 Section 25. And you'll see those -- in particular,  
17 there are five wells. It's all the wells that start  
18 with the number two, the 200 series wells, the existing  
19 wells in that actual proration unit.

20 And then we came in and drilled the Burch  
21 Keely Unit Number 410 right in the center, which is,  
22 again, on 10-acre spacing. But because those previous  
23 four wells were moved tighter together to put them in  
24 that same proration unit, that Number 410 would have  
25 been the fifth well in that unit. Under the previous

1 field rules, we would not have been allowed to drill  
2 this well, and this would have resulted in waste.

3 Q. So the temporary rules that we have in place  
4 are actually preventing waste?

5 A. Yes. They will prevent waste.

6 And this slide kind of goes with the next  
7 slide that shows the production from this well in  
8 question, the Burch Keely Unit Number 410.

9 Q. Well, then let's move on to Exhibit Number 19.

10 A. Exhibit 19 is just a regular production plot of  
11 the subject well, the Burch Keely Number 410. It  
12 shows -- these are all daily rates. Oil is green.  
13 Water is blue. Gas is red. The well was drilled at the  
14 end of 2010. After it came on, it stabilized at  
15 about -- averaging about 100 barrels a day for over a  
16 year and a half -- about a year and a half. And then  
17 it's declined since then, but it's still mainly  
18 producing somewhere between nine and ten barrels a day.  
19 And I have projected this well to continue to produce on  
20 into the future. It's currently cumed about 48,000  
21 barrels, and I estimate it's going to make somewhere  
22 between 70- to 80,000 barrels during its life. So in  
23 other words, if the field rules were not changed, this  
24 production would have been wasted.

25 Q. Moving to Exhibit 20, what does Exhibit 20 show

1 us?

2 A. Exhibit 20 is a scatter plot of all the initial  
3 GORs, and these are all the wells across the shelf  
4 producing from the Yeso Formation. And so we just take  
5 the initial production, oil and gas, and calculate the  
6 GOR. And what this is showing, even though there is  
7 quite a bit of scatter in the data, is that there is a  
8 general downward trend. The GORs are not increasing.  
9 And what this indicates is that we are not wasting  
10 reservoir energy. We're not, you know, depleting the  
11 reservoir too rapidly to cause damage.

12 And also let me point out, I fit this line  
13 through there. This is just a linear regression through  
14 the points and, if anything, it shows kind of a negative  
15 slope to the GOR. So what this tells me is that we're  
16 not negatively affecting this reservoir.

17 Q. Moving to Exhibit 21.

18 A. Okay. This is my last exhibit, and this is  
19 just a total Yeso production plot of all the COG  
20 Operating wells on the shelf. Again, the oil is in  
21 green. Gas is in red. There is a curve on here that's  
22 black, and that's the well count. And you can see that  
23 since COG took over in 2006, the well count has  
24 increased dramatically, and we've done quite a bit of  
25 drilling out here. So the well count when we got it was

1 about 350, and we're up to over 1,500 wells now.

2 You can also see the corresponding. As the  
3 well count goes up, obviously oil and gas goes up  
4 tremendously. We've got a tenfold -- roughly a tenfold  
5 increase in oil and gas production over that period.

6 Then, also, I guess the bottom curve is  
7 kind of a pink or magenta, and it shows the GOR. During  
8 this drilling period, the GOR actually went down because  
9 we were making such good wells, our oil production went  
10 up, which lowers your GOR. But even here in the last  
11 couple of years, the GOR is just on a gentle increase,  
12 which you would expect from this type of reservoir,  
13 which is the depletion gas reference [sic].

14 So, again, this is another plot showing  
15 generally across the shelf that we are effectively  
16 producing this reservoir and not damaging it in any way.

17 Q. Very good.

18 Mr. Bezner, are you familiar with the  
19 special pool rules that are the subject of this  
20 application?

21 A. Yes, I am.

22 Q. And in your opinion, is the 300-tank-barrels-  
23 of-oil-per-day allowable damaging the reservoirs?

24 A. No, it is not.

25 Q. Is the allowable preventing waste?

1           A.    Yes, it is.

2           Q.    In your opinion, is the limiting gas-oil ratio  
3 of 3,000 standard cubic feet of gas per barrel of oil  
4 appropriate for the Dodd-Glorieta-Upper Yeso pool and  
5 the Burch Keely-Glorieta-Upper Yeso pool?

6           A.    Yes, it is.

7           Q.    Is it causing damage?

8           A.    No, it is not.

9           Q.    Is it preventing waste?

10          A.    Yes, it is.

11          Q.    Based on your engineering studies of this area,  
12 is it your opinion that the four vertical wells per  
13 40-acre in the Blinebry Formation will allow for  
14 effective and efficient drainage?

15          A.    Yes, it does.

16          Q.    Is it your opinion that the density limits,  
17 seven per 40 acres in the Paddock Formation, will allow  
18 for efficient and effective drainage?

19          A.    Yes, it does.

20          Q.    Mr. Bacon mentioned in his testimony that the  
21 Blinebry is primarily being produced through horizontal  
22 development; is that correct?

23          A.    That's correct.

24          Q.    Can you discuss for the Examiners a little bit  
25 about why the Paddock can primarily be produced

1 vertically?.

2       A.     Certainly. Like I said, we bought this from  
3 Marbob, and their target was the Paddock. They didn't  
4 believe there was really anything to get from the  
5 Blinebry, and so all the existing wells that were there,  
6 the vertical, were just drilled down to the Paddock.  
7 And, you know, the Blinebry is not as good a reservoir.  
8 Everybody knows that, but we have found -- so we have  
9 these existing vertical wells down in the Paddock, and  
10 they're kind of in the way. So we can't horizontally  
11 develop the Paddock, but we have the Blinebry  
12 underneath, down to a depth of 5,000 feet. And so we  
13 went out there and drilled some Blinebry horizontal  
14 wells. It's in the upper part of the Blinebry and found  
15 that, you know, instead of having eight verticals, you  
16 can do the same with a mile lateral, connect all that  
17 porosity to a big multistage frack and effectively drain  
18 that reservoir, and we're also making some pretty good  
19 wells.

20       Q.     In your opinion, is it in the best interest of  
21 conservation, the prevention of waste and the protection  
22 of correlative rights to make the special pool rules in  
23 the Dodd-Glorieta-Upper Yeso pool and the Burch Keely-  
24 Glorieta-Upper Yeso pool permanent?

25       A.     Yes, it is.

1 Q. Were Exhibits 14 through 21 prepared by you or  
2 under your supervision?

3 A. Yes, they were.

4 MS. GERHOLT: Mr. Examiner, at this time I  
5 would move the admission of COG Exhibits 14 through 21  
6 into evidence.

7 EXAMINER GOETZE: Exhibits 14 through 21  
8 are so entered.

9 (COG Operating, LLC Exhibit Numbers 14  
10 through 21 were offered and admitted into  
11 evidence.)

12 MS. GERHOLT: May I have one moment,  
13 Mr. Examiner?

14 EXAMINER GOETZE: Please.

15 MS. GERHOLT: That concludes my examination  
16 of this witness.

17 EXAMINER GOETZE: Mr. Bruce?

18 MR. BRUCE: No, sir, again.

19 EXAMINER GOETZE: Very good.

20 CROSS-EXAMINATION

21 BY EXAMINER GOETZE:

22 Q. So since the initiation of these special pool  
23 rules, how many new wells have been drilled roughly  
24 between the two units?

25 A. A lot. I'm guessing probably 200-something.

1 Q. And you foresee how much more activity  
2 in-filling?

3 A. Well, if you look at some of those maps, we are  
4 pretty much drilled out, but there are more locations  
5 down to ten acres. But I'm again guessing maybe another  
6 hundred vertical wells, and then we have these Upper  
7 Blinebry horizontals, another 50, something like that.

8 Q. So you're pretty much maxed out as far as the  
9 vertical options right now?

10 A. Yeah. And we're just -- we're just in-filling  
11 now in particular spots.

12 Q. So we have a mature site in both locations.

13 I would ask counsel and your representative  
14 if you could provide three years' production data --

15 A. Sure.

16 Q. -- for both units --

17 A. Yes.

18 Q. -- so we can take a look at it.

19 A. No problem.

20 Q. And provide that to us.

21 A. Okay.

22 Q. We'd appreciate it.

23 A. That will be no problem.

24 Q. And let's see. I don't have any further  
25 questions for you at this time. I may have one or two



1 once we see the data. Okay?

2 A. Okay. That's fine.

3 MS. GERHOLT: Thank you, Mr. Examiner. We  
4 will provide that to you shortly.

5 EXAMINER GOETZE: At your convenience.  
6 Thank you.

7 MS. GERHOLT: That concludes my  
8 presentation of these cases. May my witnesses be  
9 dismissed?

10 EXAMINER GOETZE: The witnesses may go  
11 away, and at this point, we will take Case Numbers  
12 14669, 14670, 14758 and 14759 under advisement.

13 (Case Numbers 14669, 14670, 14758 and 14759  
14 conclude, 8:52 a.m.)

15

16

17

18 I do hereby certify that the foregoing is  
19 a complete record of the proceedings in  
the Examiner hearing of Case No. \_\_\_\_\_,  
20 heard by me on \_\_\_\_\_.

21

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\_\_\_\_\_, Examiner  
Oil Conservation Division

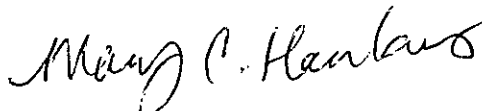
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