

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

ORIGINAL

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

CASE NO. 14885

APPLICATION OF COG OPERATING, LLC FOR THE
CREATION OF A NEW POOL, SPECIAL POOL RULES,
THE CONTRACTION OF THE GRAYBURG-JACKSON-SEVEN
RIVERS-QUEEN-GRAYBURG-SAN ANDRES-GLORIETA-YESO
(PADDOCK) POOL AND CANCELLATION OF OVERPRODUCTION,
EDDY COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

DOCKET NUMBER 27-12

BEFORE: DAVID K. BROOKS, Hearing Examiner
RICHARD EZEANYIM, Legal Examiner

August 23, 2012

Santa Fe, New Mexico

8:24 AM

This matter came on for hearing before the
New Mexico Oil Conservation Division, DAVID K. BROOKS,
Hearing Examiner and RICHARD EZEANYIM, Legal Examiner on
Thursday, August 23, 2012, at the New Mexico Energy,
Minerals and Natural Resources Department, 1220 South
Saint Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: Lisa Reinicke
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500 Fourth Street, NW, Suite 105
Albuquerque, NM 87102

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1 MR. EXAMINER: At this time we call case
2 number 14885, Application of COG Operating, LLC for the
3 creation of a new pool, special pool rules, and the
4 contraction of the Grayburg-Jackson-Seven
5 Rivers-Queen-Grayburg-San Andres-Glorieta-Yeso (Paddock)
6 Pool and cancelation of overproduction, Eddy County,
7 New Mexico.

8 Call for appearances.

9 MS. MUNDS-DRY: Good morning, Mr. Brooks.
10 Ocean Munds-Dry with COG Operating, LLC, and I have
11 three witnesses. And give us a minute. We do have a
12 PowerPoint. Hopefully it will be just a minute.

13 MR. EXAMINER: Okay. Well, I'll go upstairs
14 and get my glasses.

15 MS. MUNDS-DRY: Thank you.

16 MR. EXAMINER: Are we ready to proceed?

17 MS. MUNDS-DRY: We are, Mr. Brooks. Thank
18 you.

19 MR. EXAMINER: Very good. Would you please
20 identify your witnesses and have your witnesses stand?

21 MS. MUNDS-DRY: Yes, it's Mr. Gaynor,
22 Mr. Broughton, and Mr. Bezner.

23 MR. EXAMINER: Okay. Please swear the
24 witnesses.

25 [Whereupon the witnesses were duly sworn.]

1 MS. MUNDS-DRY: I'd like to first call
2 Mr. Gaynor.

3 MR. EXAMINER: Proceed.

4 MS. MUNDS-DRY: Mr. Brooks and Mr. Ezeanyim,
5 before we begin his testimony, and I believe as you
6 probably can't forget, this process as we'll call it to
7 increase the allowables and what we call the shelf where
8 there are many Yeso pools began in case number 14613.
9 And in those cases we requested increase allowables
10 which the Division granted along those Yeso pools.
11 There was an increase of 300 barrels a day and 3,000 GOR
12 granted in that order that resulted from that case.

13 There were three what I will call
14 Grayburg-Jackson pools that were dismissed from that
15 original case because -- primarily because they had
16 shallower formations involved that we were not seeking
17 to increase the allowables in. And in case numbers
18 14669 and 14670 we brought the first case to address two
19 of the Grayburg-Jackson pools for Concho's or COG's
20 Burch-Keely and Dodd units. And there we requested, as
21 we are here today, to split the pools, create a new pool
22 for the Yeso and also seek an increase allowable, which
23 of course the Division also granted the same allowable
24 and GOR. So this before you today, just as a matter of
25 context, is the last pool we hope to address for

1 Concho's GJ, what we call the GJ unit.

2 And I just wanted to give you that context since
3 as you know I tried to retire sometime back and yet here
4 I am today presenting this last case to you. And it's
5 been a while so I wanted to just bring us up to date and
6 refresh your memory.

7 MR. EXAMINER: Well, we're glad to have you
8 here today.

9 MS. MUNDS-DRY: Thank you, Mr. Brooks. I'm
10 glad to be here. So with that I'll go ahead and begin
11 my direct of Mr. Gaynor.

12 BRANDON GAYNOR

13 after having been first duly sworn under oath,
14 was questioned and testified as follows:

15 DIRECT EXAMINATION

16 BY MS. MUNDS-DRY:

17 Q. Please state your full name for the record.

18 A. Brandon Kimberly Gaynor.

19 Q. And, Mr. Gaynor, where do you reside?

20 A. Midland, Texas.

21 Q. And by whom are you employed?

22 A. COG Operating.

23 Q. And what do you for COG Operating?

24 A. I am a senior landman.

25 Q. Have you previously testified before the

1 Division?

2 A. Yes.

3 Q. And were your credentials accepted and made a
4 matter of record at that time?

5 A. Yes, they were.

6 Q. Are you familiar with the application that's been
7 filed by COG Operating, LLC?

8 A. Yes.

9 Q. And are familiar with the subject lands that are
10 a part of the application?

11 A. Yes.

12 MS. MUNDS-DRY: Mr. Brooks, we tender
13 Mr. Gaynor as an expert in petroleum land matters.

14 MR. EXAMINER: So qualified.

15 Q. (By Ms. Munds-Dry) Mr. Gaynor, before we turn to
16 the slides if you could briefly summarize for the
17 Examiners what Concho is seeking here today.

18 A. Yes. Well, the pool in question is the
19 Grayburg-Jackson-Seven Rivers-Queen-Grayburg-San
20 Andres-Glorieta-Yeso (Paddock) Pool, and it ranges from
21 the top of the Seven Rivers to the top of the Abo
22 formation. What we're seeking is the contraction of
23 that pool so that it now goes from the top of the Seven
24 Rivers to the top of the Glorieta and the creation of a
25 new pool that will go from the top of the Glorieta to

1 the top of the Abo. We're also seeking in that new pool
2 for the deeper depths a 300 barrels a day allowable and
3 a 3,000 to one GOR and cancelation of our past
4 overproduction.

5 Q. Thank you, Mr. Gaynor. If we could then turn to
6 the first slide in the presentation and what has also
7 been marked as COG's Exhibit Number 1. If you could
8 review what we are showing here today for the Examiners.

9 A. Yes. This is a broad overview of the shelf and
10 the Yeso pools ranging from township 17 south, 27 east
11 on the left end of the exhibit, and township 17 south,
12 range 33 east on the right end of the exhibit. The gray
13 pools are all of the pools, which we've already changed
14 the -- or we've already received orders giving us a 300
15 barrel a day allowable in the 3,000 to one GOR. The
16 blue pool right there kind of in the middle of all the
17 other pools is the pool we're talking about today.

18 Q. Thank you. And if you could then, using this
19 slide probably would be the best place to do it, is
20 review the history of the allowable and pool change
21 cases for the Examiners.

22 A. Yes. At first we brought a case listing all of
23 these pools asking to change the allowable at once. But
24 on the motion of another party it ended up being that
25 all of the pools that included shallow depths were

1 removed because the idea was that that allowable didn't
2 make sense for those shallower depths. And so that
3 included the Dodd unit and the Burch-Keely Unit and the
4 Yeso-Jackson. And we've been coming back and doing
5 those since.

6 Q. And so this is the last one that we have an
7 interest in, in any event, as far as for what we call
8 the Grayburg-Jackson pools with the shallower depths?

9 A. Yes, that's correct.

10 MS. MUNDS-DRY: Mr. Brooks, I think both you
11 and Mr. Ezeanyim are pretty intimately familiar with
12 those cases but for the record we'd ask that you take
13 administrative notice of case numbers 14613, 14669, and
14 14670.

15 MR. EXAMINER: Okay. We will do so, this
16 being familiar case, we don't really have to be terribly
17 concerned about the scope of administrative notice or
18 precisely how we're doing it. So I will simply grant
19 your request to take administrative notice of those
20 cases in their entirety, which will include everything
21 in all of those files.

22 MS. MUNDS-DRY: Thank you. Not that I
23 expect you to do back through them since how could you
24 ever forget those cases.

25 MR. EXAMINER: I think Mr. Ezeanyim

1 remembers them very well.

2 Q. (By Ms. Munds-Dry) Okay. Let's turn,
3 Mr. Gaynor, to Exhibit Number 2. And actually let's
4 look at Exhibit 2 and Exhibit 3 together.

5 A. Okay.

6 Q. First, what does Exhibit 2 show us?

7 A. Exhibit 2 is an operator plat showing the
8 operators within the pool and within a mile of the pool
9 but not in another pool for the shallower depths, and
10 that's what the one is that's on the screen right now.
11 Exhibit Number 3 is the same thing but it's for the
12 deeper depths. It's for the Glorieta and Yeso.

13 Q. Okay. And so this begins to show us how we built
14 our notices. But if you could, for the record, tell the
15 Examiners when, what we'll call the GJ pool, since it's
16 such a mouth full, was created.

17 A. The pool as it exists today was created on
18 December 1st of 2006 by order R12678.

19 Q. And before we leave these exhibits if you could
20 give a brief history of the history of the GJ unit for
21 the Examiners.

22 A. It's a fairly old unit. It was created in 1966
23 by order R3127. The pool has been expanded a number of
24 times vertically to be what it is today. And it's
25 changed hands in terms of who operates it a number of

1 times as well.

2 Q. And what are the lands principally comprised of
3 within the GJ unit?

4 A. It's almost all state lands except for one
5 40-acre fee tract.

6 Q. And what is the unitized formation?

7 A. It's from the top of the Seven Rivers to the top
8 of the Abo.

9 Q. Thank you. And is Concho the operator of the
10 unit?

11 A. Yes, we are.

12 Q. Let's go to Exhibit Number 4, if we could,
13 Mr. Gaynor. Is this what we call the notice packet
14 which includes the notice letter to affected parties,
15 the Exhibit A which shows the affected parties' green
16 cards, and our affidavit of publication?

17 A. Yes.

18 Q. Showing that proper notice was given of this
19 application?

20 A. Yes.

21 Q. And who did Concho notify of this application?

22 A. We notified the State Land Office, Cimarex, Nadel
23 and Gussman Heyco, and OXY.

24 Q. And those operators that you listed, why did we
25 notify them?

1 A. Because those are offset operators within a mile
2 of this pool but not in another pool.

3 Q. Pursuant to the Division rules, we gave them
4 notice?

5 A. Yes.

6 Q. And if you could, Mr. Gaynor, and I know the
7 other witnesses will expand on this for us, but if you
8 give Mr. Brooks and Mr. Ezeanyim an idea of the benefit
9 of this application to Concho.

10 A. Yes. And you're right, Mr. Bezner, our reservoir
11 engineer will be able to give a much more thorough
12 technical explanation of what this will help us to do.
13 But basically this allows us to continue to develop the
14 reservoir in an efficient manner.

15 Q. And will the granting of this application be in
16 the best interest of conservation, the prevention of
17 waste, and the protection of correlative rights?

18 A. Yes.

19 Q. And were Exhibits 1 through 4 either prepared by
20 you or compiled under your direct supervision?

21 A. Yes.

22 MS. MUNDS-DRY: Mr. Brooks, we'd ask that
23 Exhibits 1 through 4 be admitted into evidence.

24 MR. EXAMINER: 1 through 4 are admitted.

25 [Exhibits 1 through 4 admitted into evidence.]

1 MS. MUNDS-DRY: And that's concludes my
2 direct examination of Mr. Gaynor.

3 MR. EXAMINER: Okay. Let's go back to your
4 map, Mr. Gaynor. There are two Grayburg-Jackson pools
5 in this area and I always get them confused. And
6 there's one that's Grayburg-Jackson, the various
7 formations, but it's San Andres. The deepest one, I
8 believe, is San Andres. It's a list of formations with
9 San Andres.

10 MR. GAYNOR: Yes. It's almost the same
11 exact name as this pool.

12 MR. EXAMINER: Exactly. And that's why I
13 always get them confused. But that other
14 Grayburg-Jackson pool, where is that in relation to the
15 pools shown on this map?

16 MR. GAYNOR: Well, you know, the easiest way
17 to think about that is the original Grayburg-Jackson
18 pool, this pool was part of it.

19 MR. EXAMINER: Yeah, that's what I thought.

20 MR. GAYNOR: And it's very large. It
21 expands way to the east several townships. And this was
22 just a part of that pool. And that order in 2006
23 removed this acreage from that pool entirely creating a
24 new one. It was sort of different from what they did in
25 the Dodd and Burch-Keely units where they left it in the

1 pool but just created special vertical limits. Here
2 they've pulled it out and made it its own pool.

3 MR. EXAMINER: And you said it's to the east
4 of --

5 MR. GAYNOR: Yes.

6 MR. EXAMINER: And does it overlie the Dodd
7 and Burch-Keely units?

8 MR. GAYNOR: Yes.

9 MR. EXAMINER: Okay.

10 MR. GAYNOR: The shallower formations in the
11 Dodd and Burch-Keely units are actually in that pool.

12 MR. EXAMINER: Okay. So those are also in
13 those units?

14 MR. GAYNOR: Yes.

15 MR. EXAMINER: I thought I remembered that.

16 MR. GAYNOR: We had to file commingling --

17 MR. EXAMINER: Right.

18 MR. GAYNOR: -- forms after the hearing.

19 MR. EXAMINER: Okay. And there's some pool
20 out there where there's a 5,000 foot depth --

21 MR. GAYNOR: That is the Burch-Keely
22 Glorieta upper Yeso pool.

23 MR. EXAMINER: Now, that does not affect
24 what we're doing today at all?

25 MR. GAYNOR: No.

1 MR. EXAMINER: I think that's all my
2 questions.

3 Mr. Ezeanyim?

4 EXAMINER EZEANYIM: We're going to explore
5 that. The question is I'm not satisfied yet on that
6 San Andres. If you look at the map it's not included
7 there. But remember the original application that was
8 submitted by COG, it covers from 962, 1829, 1631, 1632,
9 1758, 1729 continued to 1730 and 1731 and then including
10 the Burch-Keely which Cimarex dealt with.

11 MR. GAYNOR: Right.

12 EXAMINER EZEANYIM: If you look at that, the
13 way I'm looking at that one was carved out in 2006. So
14 this one was carved out of the well what I just read to
15 you.

16 MR. GAYNOR: Yes.

17 EXAMINER EZEANYIM: But is it able to call
18 Grayburg-Jackson, you know, Grayburg-San Andres, is it
19 able to call that at all?

20 MR. GAYNOR: The Grayburg-Jackson-Seven
21 Rivers-Queen-Grayburg-San Andres Pool.

22 EXAMINER EZEANYIM: Is there any pool?

23 MR. GAYNOR: Yes.

24 EXAMINER EZEANYIM: It's not indicated here.

25 MR. GAYNOR: Not indicated?

1 EXAMINER EZEANYIM: Yeah, it's not indicated
2 here because this --

3 MS. MUNDS-DRY: Oh, on this Exhibit
4 Number 1, Mr. Examiner, is that what you're saying?

5 EXAMINER EZEANYIM: Yeah, it's not indicated
6 there because it composites almost the whole shelf, I
7 think.

8 MR. GAYNOR: Right. And that's because this
9 is a different pool from that pool. That's just an
10 offset pool to the one we're talking about.

11 EXAMINER EZEANYIM: I know. There's nothing
12 wrong at all. I'm trying to see how we can get this
13 right. I'm not trying to put you on a pedestal. I'm
14 trying to get this right because sometimes it is very
15 confusing.

16 MR. GAYNOR: It is.

17 EXAMINER EZEANYIM: Because, you know, we
18 are trying to prevent waste. But my question is that we
19 should have that pool. And I think the composite, some
20 of these little, little, small pools, if you look at the
21 coverage of that --

22 MR. GAYNOR: It overlies them.

23 EXAMINER EZEANYIM: Yes, it overlies them is
24 what I'm saying. So you could have the ability to
25 swallow most of the pools in there, right? Because if

1 you go from the township -- how many townships? Almost
2 three townships and then maybe five or six ranges.

3 MR. GAYNOR: Yes. It's just above them.

4 EXAMINER EZEANYIM: Oh.

5 MR. GAYNOR: It's just different reservoirs.

6 EXAMINER EZEANYIM: What I'm trying to do is
7 to get it right because it's very confusing.

8 MR. GAYNOR: Yes.

9 EXAMINER EZEANYIM: We want to get it right
10 to make sure what we are doing. Okay.

11 Now, in your application I read where you said
12 that the pool had been unworkable. I mean, this pool
13 that you want to -- the name of this pool that's
14 included as the Glorieta-Yeso Paddock, you say it is
15 unworkable. So I'm beginning to wonder why is this
16 unworkable?

17 MR. GAYNOR: Well, the reason is because we
18 need that higher allowable for the development of the
19 Yeso formation.

20 EXAMINER EZEANYIM: And maybe the statewide
21 allowable for the shallower?

22 MR. GAYNOR: And the statewide allowable is
23 okay for the shallower so we need to sever the pool.

24 EXAMINER EZEANYIM: That's really what I
25 wanted to know.

1 MR. GAYNOR: Yes.

2 EXAMINER EZEANYIM: Because if you combine
3 them and then go to the Paddock, and I will give you 300
4 for the Yeso and 300 for the Paddock, it doesn't make
5 sense. Is that what you mean by unworkable? Is that
6 what you mean by it's not workable? It's unworkable
7 because you can't apply the pool rules we gave you last
8 year in the Yeso with the shallower that ended at the
9 top of the Glorieta, right?

10 MR. GAYNOR: Right.

11 EXAMINER EZEANYIM: Do you understand what
12 I'm saying?

13 MR. GAYNOR: Yes. Yeah, we just need --

14 EXAMINER EZEANYIM: On the shallower part of
15 the pool.

16 MR. GAYNOR: Yes, we only need the higher
17 allowable for the Yeso. We don't need it for the
18 San Andres.

19 EXAMINER EZEANYIM: Do you have any well
20 producing from that shallower formation? Do you have
21 any well producing from there?

22 MR. GAYNOR: I believe so, but that's a
23 question that Mr. Bezner can answer more readily.

24 EXAMINER EZEANYIM: Well, I don't know what
25 I have. There's a lot of land issues here that I am

1 still concerned about, and it's not your fault. Maybe
2 it's mine, I don't know. We need to get it right. So
3 don't think I'm trying to pull because it's your fault,
4 it's not. It's how we named these pools.

5 MR. GAYNOR: Right.

6 EXAMINER EZEANYIM: And I want to make sure
7 we have it right.

8 MR. GAYNOR: AND Mr. Broughton and I had a
9 conversation with Mr. Kautz about what he would prefer
10 for these pools, and I know that Mr. Broughton wants to
11 discuss that with you.

12 EXAMINER EZEANYIM: Yes, do that because
13 it's worth it. I'm glad you have talked to Paul so Paul
14 will give us maybe a pool ID or whatever you come up
15 with.

16 MR. GAYNOR: Yes, yes.

17 EXAMINER EZEANYIM: I think I'm happy with
18 that. Okay.

19 MS. MUNDS-DRY: I'll ask Mr. Broughton to
20 come up next.

21 HARVIN BROUGHTON
22 after having been first duly sworn under oath,
23 was questioned and testified as follows:

24 DIRECT EXAMINATION

25 BY MS. MUNDS-DRY:

1 Q. Okay. . Would you please state your full name for
2 the record?

3 A. Harvin Broughton.

4 Q. And where do you reside?

5 A. Midland, Texas.

6 Q. By whom are you employed?

7 A. COG Operating, LLC.

8 Q. And what is your position with COG?

9 A. I am a senior geologist for the Northwest Shelf
10 Properties, the basin. The Shelf Team is what we're
11 called.

12 Q. And have you previously testified before the
13 Division?

14 A. Yes, I have.

15 Q. Were your credentials accepted and made a matter
16 of record at that time?

17 A. They were.

18 Q. And are you familiar with the application that
19 COG has filed here today?

20 A. I am.

21 Q. And have you made a study and become familiar
22 with the geology in this area?

23 A. Yes, I have.

24 MS. MUNDS-DRY: We would tender
25 Mr. Broughton as an expert in petroleum geology.

1 MR. EXAMINER: So qualified.

2 MS. MUNDS-DRY: Thank you, Mr. Examiner.

3 Q. (By Ms. Munds-Dry) If we could, Mr. Broughton,
4 if you could turn to your first slide, which has also
5 been marked as COG's Exhibit Number 5 and review it for
6 the Examiners.

7 A. Okay. This is a stratographic column from the
8 Northwest Shelf area, so this applies to the lands that
9 we're currently talking about. If you'll notice the
10 middle column there, if you'll look on the screen up
11 there, I've put a little red bracket to get everyone
12 focused on the Yeso interval. So there's four
13 formations that fall within the Yeso group; the Paddock,
14 Blinebry, Tub, and Drinkard. In this specific area the
15 Paddock and the Blinebry are the primary producing
16 formations. And then you'll notice right above that
17 bracket is the Glorieta formation. So that's what we're
18 going to be focused on for this discussion.

19 Q. So this gives us just an overview then of the --

20 A. Exactly, just a general orientation of the order
21 of the formations.

22 Q. Let's turn to your next slide, which has been
23 marked as COG's Exhibit Number 6.

24 A. Okay. This is a cross section across the entire
25 shelf area. So this goes basically from 1728 all the

1 way to 1733. And then the next slide will have the
2 cross section with the logs. Each of those red dots
3 from A to A prime represent a well that is included --
4 has its logs included in this cross section. You'll
5 notice this is basically the same slide as Mr. Gaynor's,
6 and you'll notice that the small blue area there in 1729
7 is the GJ unit that we're discussing.

8 Q. Let's turn to your next slide which has been
9 marked as COG Exhibit Number 7.

10 A. This is the cross section of wells showing the
11 expanse across the shelf. Some of the wells were
12 shallower, some were deeper. Some of them did not go
13 all the way through the Yeso formation. But you'll
14 notice, and I'll point it out on the screen here. In
15 the yellow band, that is the Glorieta formation right
16 here. So we've hung this on top of the Glorieta. The
17 green band is the Paddock. And then this light pink
18 color is the Blinebry.

19 And I put this slide together just to show the
20 continuity and relative uniformity of thicknesses of
21 those two -- well, the three formations across the
22 entire shelf. So the Glorieta, Paddock, and Blinebry
23 are all relatively the same in thickness and position
24 across the entire shelf area.

25 EXAMINER EZEANYIM: You said production

1 coming from the Glorieta?

2 MR. BROUGHTON: Excuse me?

3 EXAMINER EZEANYIM: Have you gotten any
4 production from the Glorieta?

5 MR. BROUGHTON: The Glorieta is productive
6 in some areas but not in this area. And Concho does not
7 have any wells that are producing from the Glorieta.
8 Both of our Glorieta fields, I believe to the east and
9 maybe other places, I'm not real familiar with those.
10 But there is Glorieta production but not in this area.

11 EXAMINER EZEANYIM: I'm trying to study the
12 Glorieta production related to the Paddock and Blinbry.

13 MR. BROUGHTON: Right.

14 EXAMINER EZEANYIM: Because, you know, there
15 has been an idea that nothing from the Glorieta, but I
16 don't believe so. So you said there is some production
17 from there?

18 MR. BROUGHTON: Yes, but nowhere in my shelf
19 area where I'm the geologist is it productive. It's
20 very low perm, typically low porosity and would not in
21 my estimation be a reservoir. And I think it has
22 probably been tested by people. But, I mean, just the
23 fact that there are no Glorieta wells tells you that
24 it's not productive in the area.

25 EXAMINER EZEANYIM: Okay. Thank you. Okay.

1 Go ahead.

2 Q. (By Ms. Munds-Dry) And, Mr. Broughton, I think
3 you mentioned this, I just want to make sure, you show
4 in blue here up at the top there's a cross section.
5 What is that blue denote?

6 A. You're talking about the blue letters here?

7 Q. Yes, sir.

8 A. That is a well that's actually from the GJ unit,
9 so we wanted to specifically point that out. We had
10 flagged on the previous slide the GJ unit and where it
11 is in position. This is a well that's from the GJ unit.
12 So you can see its relationship to the wells around it.

13 Q. And I want to make sure that this is clear as
14 well. That GJ unit, is the pool coextensive with the
15 unit? It has the same boundaries, the same vertical and
16 horizontal boundaries as the unit?

17 A. I believe it does.

18 Q. Let's then go to your next slide, which is COG's
19 Exhibit Number 8.

20 A. So this is a zoomed in map of the GJ unit with
21 the blue line being the unit boundary. And also on this
22 map you'll notice a number of dots, red and blue dots.
23 Those are indicative of Yeso wells. The solid red dots
24 are Paddock wells. There's a few solid blue dots which
25 are Blinebry wells, Blinebry only. But most of the

1 wells in here are half and half, which means that
2 they're combinations. The completions are done in the
3 Blinebry and the Paddock.

4 The B to B prime line with the four dots, those
5 are the four wells that will be in the next cross
6 section that's coming up. So that's going to be a cross
7 section that completely traverses the GJ unit.

8 Q. Then let's turn to that next exhibit, which is
9 Exhibit Number 9.

10 A. Right. And we have an expanded view of that.
11 It's kind of difficult to see on the screen. I'll let
12 you open that up. And we blew this up just so it's
13 easier to see the depths and a little bit easier to see
14 what's going on here. But, again, in the same fashion
15 we have the yellow band towards the top. That's the
16 Glorieta. Then the green is the Paddock. The pink is
17 the Blinebry. And then at the base of all that is the
18 lower bounding zone which is the Tub sand. And this,
19 again, is just to depict the similarity in position,
20 thickness, relative thickness across the entire GJ unit.

21 Q. And you've touched on this a little bit already
22 with Mr. Ezeanyim, but if you could discuss in a little
23 bit more detail what you see in terms of porosity and
24 permeability in the Glorieta.

25 A. Okay. The Glorieta is a sand which is very

1 different from the productive Paddock Blinbry. And it
2 lies on top of the Paddock, and it's very low -- it's
3 typically low porosity though it sometimes can have
4 higher porosity. But it's always, at least in this
5 area, very low permeability. It's got very low
6 horizontal permeability and even lower vertical
7 permeability. So I believe that that is a cap or a
8 barrier or a boundary, a fluid boundary that isolates
9 the Yeso formation above from the San Andres formation --
10 I mean below from the San Andres formation above.

11 So I believe it's an isolation or a barrier, a
12 hydraulic barrier I guess would be the cleanest way to
13 say that.

14 Q. And given what you've just said about it being a
15 barrier, what in your opinion is the likelihood in a
16 natural state of fluids migrating between the band or
17 similar Paddock or vice versa?

18 A. I don't believe there would be any hydraulic
19 communication in terms of fluids moving from the Yeso --
20 I mean to the San Andres or vice versa. And I think
21 maybe possibly the most telling thing, and I think
22 Mr. Bezner will touch on it also, is the differences in
23 oils. They have a significantly different API gravity.
24 And the water resistivities that you use in our log
25 computations are different, substantially different from

1 the Yeso to the San Andres.

2 So just those fluid differences alone would tell
3 me that they're separate reservoirs and isolated from
4 each other.

5 Q. Based on what you've reviewed here today in your
6 testimony, what can you give us as your geologic
7 conclusions?

8 A. Well, my geologic conclusions would be that the
9 dolomite formations of the Paddock Blinebry or loosely
10 what we call the Yeso productive interval here are
11 separate and isolated from the San Andres which lies
12 above.

13 Q. And we touched on this with Mr. Gaynor, I think
14 Mr. Ezeanyim was curious about this, have you had a
15 chance to discuss the name of this pool with the
16 district office?

17 A. Yes, I have. Mr. Gaynor and I contacted Paul
18 Kautz last week with the OCD in Hobbs and we presented
19 our proposed -- we explained to him what we were doing
20 and he pulled up a map. I don't know if it was on his
21 computer or a paper map. But he pulled up a map and we
22 showed him the area we were talking about and what we
23 were talking about doing. And we proposed the new name
24 for our new pool to be Grayburg-Jackson-Glorieta-Yeso,
25 and he was in agreement with that naming convention.

1 EXAMINER EZEANYIM: Grayburg-Jackson?

2 MR. BROUGHTON:

3 Grayburg-Jackson-Glorieta-Yeso, yes, sir. And this
4 would be from the top of the Glorieta to the Abo.

5 EXAMINER EZEANYIM: Did he give you a pool
6 ID?

7 MR. BROUGHTON: No, he did not give us a
8 pool ID.

9 EXAMINER EZEANYIM: Okay. I will get that
10 from him.

11 MR. BROUGHTON: You're talking about a
12 number?

13 EXAMINER EZEANYIM: Yeah, is there a pool
14 code?

15 MR. BROUGHTON: No, he did not. He did not
16 do that. We were just getting his feeling for what he
17 would like the pool to be named. And he did not assign
18 us any numbers. He just agreed that our naming was
19 fine.

20 EXAMINER EZEANYIM: Okay.
21 Grayburg-Jackson-Glorieta-Yeso, right?

22 MR. BROUGHTON: Yes, sir.

23 EXAMINER EZEANYIM: And there is no mention
24 of Paddock, just Glorieta-Yeso?

25 MR. BROUGHTON: Just Glorieta-Yeso.

1 EXAMINER EZEANYIM: And Paul was in
2 agreement with that?

3 MR. BROUGHTON: Yes. Yes, he was fine with
4 that.

5 EXAMINER EZEANYIM: Maybe he instructed now.
6 But we have cut off that top of the Glorieta to maybe
7 the top of the Yeso, base of the Yeso. What do we do
8 with the acreage, you know, the San Andres? We are
9 going to leave it as it is, including Glorieta-Yeso in
10 Paddock. What are we going to do with that name now? I
11 mean, I don't want to forget it because I want to know
12 whether you discussed this with Paul, whether we are
13 going to retain the name because then it doesn't make
14 sense anymore.

15 MR. BROUGHTON: Right.

16 EXAMINER EZEANYIM: Once you cut off the
17 vertical from the top of the Glorieta to the top of the
18 Abo, once you cut it off and then we are not going to
19 retain that name because if you retain that name you are
20 invoking the Glorieta-Yeso and Paddock so does it
21 doesn't make any sense.

22 Q. (By Ms. Munds-Dry) Mr. Broughton, do you have
23 recommendation for what we might call the contracted old
24 pool?

25 A. Well, I mean my suggestion would be to cut it off

1 at the San Andres and the Seven Rivers and all those
2 that claim Grayburg-San Andres and just call it that.

3 EXAMINER EZEANYIM: That's what I think.

4 But that's why I was making that point when I was asking
5 your land person of that because it's a long name. But
6 I want to read it because I want to get it right. The
7 Grayburg-Jackson-Seven Rivers-Queen-Grayburg-San Andres
8 pool. Okay.

9 MR. BROUGHTON: But that would be my
10 suggestion.

11 EXAMINER EZEANYIM: If we cut it off, we
12 might agree to that pool again. So that's why I wanted
13 to see the outline of that pool, see whether once we cut
14 this off from the top of the Glorieta then we join the
15 acreage and then attach the San Adres to the -- because
16 we want to have that pool name even with the pool code,
17 the one that was created. I mean, this name,
18 Grayburg-Jackson-Seven Rivers-San Andres, see what I
19 mean?

20 So instead of leaving it with the Glorieta Yeso
21 Paddock, even though we cut it off, it doesn't make
22 sense to me. So I wanted to see if we could join it. I
23 don't know whether you discussed this with Paul to see
24 whether we can join that acreage for the shallower
25 formations to the original San Andres. Do you see the

1 point I'm making?

2 MS. MUNDS-DRY: Yeah, I understand. That
3 makes sense. And I think you're right, Mr. Ezeanyim,
4 given that there's been so much confusion over these
5 Grayburg-Jackson pools. It would be worth a little bit
6 of effort and we'd be happy to help you sort through it
7 if you'd like us to, to try to make it so it's clear to
8 everyone what that new or contracted pool belongs to.
9 And maybe it makes sense to reconsolidate it. I don't
10 know the answer to that as we sit here today.

11 MR. EXAMINER: If we wanted to avoid
12 complications involved in consolidating pools, we could
13 perhaps call it something like the West
14 Grayburg-Jackson-Seven Rivers-San Andres. I don't know.

15 MS. MUNDS-DRY: There's some merit to that,
16 I think, Mr. Brooks, to try to differentiate.

17 EXAMINER EZEANYIM: That's for the
18 shallower.

19 MR. EXAMINER: Yeah. There are some
20 concerns, of course, about consolidating pools as we ran
21 into earlier in this process, although it seems to me
22 that the people who have those concerns kind of it's
23 we're not to consolidate pools unless they want to and
24 in that case it's all right.

25 EXAMINER EZEANYIM: Anyway, this is not a

1 really serious problem. I think it's our problem now.
2 If we grant your request we have to know what to do with
3 the shallow formation because -- but I wanted, since the
4 geologist is here, see what you guys -- because I know
5 you guys are thinking about it and talking with Paul, so
6 I wanted to see so it would be clear in my mind what
7 we're doing here. Because I don't want to, after we are
8 finished, we call that pool again San
9 Andres-Glorieta-Yeso because, no, it doesn't make sense
10 because we've cut it off.

11 MR. BROUGHTON: Right. Well, our
12 application was simply to create this new pool. We
13 didn't really address what happens to the rest of it.

14 MR. EXAMINER: Well, actually I think
15 there's a division in the order which deletes that
16 parentheses Paddock at the end of this name, although
17 since it was in the order originally created in the pool
18 it gets picked up.

19 MS. MUNDS-DRY: It gets confusing. And
20 that's why, Mr. Ezeanyim, I'm glad to see you're
21 thinking about it because I think really our only
22 interest is to make sure it's clear to us where we're at
23 with that pool whatever it's called.

24 EXAMINER EZEANYIM: Yeah. Remember we went
25 through a lot of months before we could develop the

1 pool.

2 MS. MUNDS-DRY: We did.

3 EXAMINER EZEANYIM: And that's why I'm still
4 working on it because I want to make sure we do this
5 right.

6 MS. MUNDS-DRY: Hopefully this is the last
7 push.

8 EXAMINER EZEANYIM: No, no, it doesn't have
9 to be the last push. Bring it on. If you have anything
10 to bring on, bring it on. I'm not asking you don't
11 bring it on, no, we'll take a look at it.

12 MS. MUNDS-DRY: Sure. Sure.

13 Q. (By Ms. Munds-Dry) Okay. Where were we,
14 Mr. Broughton?

15 MS. MUNDS-DRY: Thank you for that
16 discussion, Mr. Ezeanyim. I think that's very helpful.

17 Q. (By Ms. Munds-Dry) You had mentioned, I think,
18 that you had spoken to Mr. Kautz at least about the new
19 name.

20 A. Yes.

21 Q. Then I would just ask you in your expert opinion
22 will the granting of this application be in the best
23 interest of conservation, the prevention of waste, and
24 the protection of correlative rights?

25 A. Yes, it will.

1 Q. And were Exhibits 5 through 9 either prepared by
2 you or compiled under your direct supervision?

3 A. Yes, they were.

4 MS. MUNDS-DRY: Mr. Examiner, we'd move to
5 admit COG's Exhibits 5 through 9 into evidence.

6 MR. EXAMINER: Exhibits 5 through 9 are
7 admitted.

8 [Exhibits 5 through 9 admitted into evidence.]

9 MS. MUNDS-DRY: Thank you. That concludes
10 my direct of Mr. Broughton.

11 MR. EXAMINER: Very good. I don't believe I
12 have any questions.

13 Richard, do you have more?

14 EXAMINER EZEANYIM: I think the only
15 question I wanted answered we discussed already. But I
16 might have something on the engineering.

17 MR. EXAMINER: Okay, very good. The witness
18 may step down. You may call your next witness.

19 MS. MUNDS-DRY: Thank you. We would like to
20 call our last witness Mr. Bezner.

21 CHRIS BEZNER

22 after having been first duly sworn under oath,
23 was questioned and testified as follows:

24 DIRECT EXAMINATION

25 BY MS. MUNDS-DRY:

1 Q. Would you please state your full name for the
2 record, and if you could spell it for the court
3 reporter.

4 A. My name is Chris Bezner, B-e-z-n-e-r.

5 Q. And where do you reside, Mr. Bezner?

6 A. Midland, Texas.

7 Q. By whom are you employed?

8 A. COG Operating.

9 Q. What do you do for COG?

10 A. I'm a senior reservoir engineer.

11 Q. Have you previously testified before the
12 Division?

13 A. Yes, I have.

14 Q. Do you recall when you last testified before the
15 Division?

16 A. I think it was about 2001.

17 Q. And who were you employed with at the time?

18 A. Crown Quest Operating.

19 Q. Do you remember what the application was about?

20 A. Yes, ma'am. It was unitizing these top
21 San Andres units.

22 Q. And you're currently, you said you're a senior
23 reservoir engineer with COG or what we call Concho?

24 A. Yes.

25 Q. How long have you been with Concho?

1 A. About three months.

2 Q. And before that how long have you been a
3 reservoir engineer?

4 A. In total, in the Permian Basin I've worked about
5 30 years.

6 Q. And when you say Permian Basin, is that the
7 New Mexico side of the Permian Basin or --

8 A. Both. New Mexico and west Texas.

9 Q. And when you testified back in the 2000 to 2001
10 timeframe were your credentials accepted and made a
11 matter of record at that time as a reservoir engineer?

12 A. Yes, they were.

13 Q. Are you familiar with the application that's been
14 filed by COG in this case?

15 A. Yes, I am.

16 Q. And you made an engineering study of the subject
17 area within the GJ pool and unit?

18 A. Yes, I have.

19 MS. MUNDS-DRY: Mr. Brooks, we would tender
20 Mr. Bezner as an expert witness in petroleum
21 engineering.

22 MR. EXAMINER: He is so qualified.

23 MS. MUNDS-DRY: Thank you, Mr. Examiner.

24 Q. (By Ms. Munds-Dry) If we could, Mr. Bezner, turn
25 to your first slide which has been marked as COG Exhibit

1 Number 10. If you could identify and review that for
2 the Examiners.

3 A. Yes, ma'am. This is a production plot of a
4 particular well within the New Mexico shelf. It's
5 called the Western Federal Number 8. It's operated by
6 COG. And what we did was we went out and tried to find
7 at least one good example of a well that produced from
8 both the Yeso and the San Andres separately. As
9 Mr. Broughton had explained, there's a number of wells
10 that are commingled, both zones together, or one or the
11 other.

12 But anyway, this is a good example of a well that
13 was initially completed in 2007 as a Yeso producer. It
14 produced for a while. You can see it wasn't a very good
15 well. It depleted in several years. And then in July
16 of 2010 was plugged back to the San Andres as a separate
17 producer. So the main thing you can see from this plot
18 is the difference in production characteristics. As it
19 turns out this well ended up being a better San Andres
20 well than a Yeso well initially.

21 You asked the question do we have any San Andres
22 wells, and we don't have that many but we have a few.
23 This is one of them. And the other thing that you can
24 see, it's a better producer out of the San Andres. And
25 also one thing I noted was this has got a higher water

1 cut, and that's typically what you see in the
2 San Andres. So it differentiates the type of protection
3 we see out there.

4 Q. And from the data what can you conclude about the
5 Yeso and the San Andres or the Grayburg-San Andres?

6 A. What I would conclude is this gives you
7 indication that they are totally separate reservoirs.

8 Q. Let's turn then to your next slide which is COG's
9 Exhibit Number 11. If you could review this slide for
10 the Examiners.

11 A. This is simply a summary of oil analyses that we
12 took on two separate wells. One of them is -- the one
13 to the left is the Electra Number 1, which is a Paddock
14 producer. And then the one to the right is the ETZ
15 Number 113, which is the San Andres producer.

16 Q. And how far apart are these wells, approximately?

17 A. They're approximately a half mile apart. And the
18 main point of this slide is just summarizing the
19 specific gravity. And the API gravity of the crude, you
20 see, are significantly different. The API gravity of
21 the Paddock is significantly higher than the San Andres
22 API gravity. And so what I would conclude from this is
23 that these are different types of oil.

24 Q. Let's go then to your next exhibit, Exhibit
25 Number 12. The next slide on your presentation. What

1 are you showing here?

2 A. Exhibit 12, we're just trying to show a picture
3 of the way we visualize the reservoir down there if you
4 were able to strip it away and look at it. The basic
5 description of this Yeso reservoir is that it's
6 stratigraphic, it has very low permeability and
7 porosity, and it's highly compartmentalized. And what
8 we mean by that is these dark areas and different shades
9 are just, you can call them porosity pods or porosity
10 units that extend so far from the wellbore and then
11 stop. And what you would call this is a lenticular-type
12 reservoir.

13 Q. Let's go to your next slide then, Mr. Bezner,
14 Exhibit Number 13.

15 A. Yes. Exhibit 13 just kind of expands on this
16 picture. It's the same two generic wellbores, well A
17 and well B. And, you know, for the sake of this
18 discussion we assume that the wells have similar
19 reserves. But well A calculates much less net pay, a
20 lower net pay, and you can see because of the amount of
21 the porosity pods that intersect that wellbore. And
22 this is what we see from the well logs.

23 The assumption can't be made that what you see at
24 the wellbore really defines how the well is going to
25 perform because we've seen a number of cases. I'll show

1 you a case here in a little bit where a well with low
2 net pay does good and a well with higher net pay does
3 worse, you know, right next door.

4 And so what you would conclude from this is
5 basically in the Yeso formation you have to take a
6 statistical approach to the entire reservoir. You have
7 a number of wells and statistically they're going to
8 show you a certain, say, drainage area. And what we've
9 come up, what I've highlighted on this slide is with the
10 Paddock we've come up with a little over nine -- oh, I'm
11 sorry. I have to keep up here. We've come up with a
12 little over nine acres of average drainage in the
13 Paddock, less drainage in the Blinebry. And so
14 basically we're trying to illustrate what you call the
15 heterogeneity of the reservoir.

16 Q. And based on what you've just discussed, how do
17 you characterize the porosity in this area of the Yeso?

18 A. Well, I characterize it as hit or miss basically.
19 You know, you'll see a well has quite a bit of porosity,
20 quite a bit of net pay, and then you'll see the one
21 right next door very little. And so it's basically, you
22 know, a stratographic reservoir, a very lenticular
23 reservoir.

24 Q. And you see large variances then in the porosity?

25 A. Yes, large variances in the porosity and

1 permeability.

2 Q. Let's turn to your next slide, COG Exhibit 14.

3 A. Yes. This is a 10-acre cross section on the
4 shelf. It's in township 17 south, range 30 east. It's
5 three particular wells. They're on the Electra Federal
6 lease. And we show the cross section from the Glorieta
7 down through the Blinberry of these well logs. And it's
8 kind of hard to see on this slide, but the middle tract
9 here that's highlighted in green is your porosity tract.

10 Q. And, Mr. Bezner, will you put that up on the
11 screen?

12 A. Oh, I'm sorry. I've got to keep up with it.

13 EXAMINER EZEANYIM: I was wondering.

14 A. Yeah, it's the middle tract on the log where we
15 have a porosity cut off. Anything over that is
16 highlighted in green as your porosity curve. Just
17 looking at this geologically, you look at the well in
18 the middle and think there's a lot more net pay. This
19 is a classic example. It's Well Number 21. You would
20 think, well, that would be the best producer out of
21 these three wells. Well, that's not the case because at
22 the bottom I've put in the summary of what we have our
23 estimated ultimate recoveries in oil and gas in red.
24 And this well in question, Number 21, we expect about
25 73,000 barrels of oil, whereas the oil on the right, we

1 expect about 100,000 barrels of oil.

2 And just looking at it, you know, it's hard to
3 really find hardly any net pay in that well. But based
4 on all these wells that produce for at least several
5 years now, and we were able to do decline curves and the
6 well on the right is actually going to the best
7 producer. Again, this just illustrates the nature of
8 the reservoir. It's a statistical play. It's very
9 stratigraphic. The porosity comes and goes, and you
10 have to look at it in the big picture.

11 Q. (By Ms. Munds-Dry) And this ties into what
12 you've shown us with your general drawings, depictions
13 about the correlation between what you see at the well
14 and the productivity of the well?

15 A. Right. Those pictures before, you can definitely
16 see these porosity pods just come and go between wells.

17 Q. Let's go to your next slide, Mr. Bezner, Exhibit
18 Number 15.

19 A. Okay. Yeah, let me run the projector. This is a
20 scatter plot and it's trying to show out initial
21 12-month cumulative oil production versus fee H, fee H
22 being the porosity times the net pay calculated from
23 each well. There's a large number of wells here. And
24 what we tried to see is there's some correlation between
25 what you see, again, geologically, the fee H versus oil

1 production. And the general trend of this plot -- let
2 me back up. First of all, we had to pick wells that had
3 a minimum of 12 months production to make sure that the
4 wells are stabilized and we're getting a really good
5 picture of what they're going to make.

6 And then the other qualifier was I had to pick
7 wells that had both the Blinebry and the Paddock
8 completed within the first three months. And what I
9 wanted to do is make sure they're all consistent-type
10 wells. They're producing from the same type intervals.

11 What you would expect to see, you know, according
12 to theory is that the wells with the higher fee H should
13 have the better production. But in case, from the data,
14 we don't see that. If anything, the statistical nature
15 of these points is more just a horizontal regression.
16 And what tells you is there really is no correlation
17 between the fee H and the initial 12 months production.

18 So, again, this shows us that, you know, it's a
19 statistical reservoir. What you're tapping at the
20 wellbore can tap into a large pod porosity and make a
21 good well and vice versa. Some of the best looking
22 wells have turned into some of our biggest
23 disappointments.

24 Q. Let's go to --

25 EXAMINER EZEANYIM: Don't move on. I'm

1 sorry.

2 MS. MUNDS-DRY: Oh, please go ahead.

3 EXAMINER EZEANYIM: I need to go through
4 these. If you look at the fee H and your cum, it looks
5 like the average, because this is more than those for
6 the higher fee, how do you say it, the porosity fee.

7 MR. BEZNER: Yeah.

8 EXAMINER EZEANYIM: Well, why is that? Can
9 you explain it again?

10 MR. BEZNER: What was your question again?

11 EXAMINER EZEANYIM: My question is that if
12 you look at this on the plot you can see that those with
13 the average of fee H has more recovered than those with
14 higher fee H. You would expect otherwise?

15 MR. BEZNER: Yeah, exactly. You would
16 expect the ones with higher fee H to have the higher
17 cumulative. And, again, I'm trying to, you know, help
18 you visualize it. It's like, well, let me go back to
19 this previous slide. Say this picture, Exhibit 13, you
20 know, again, like well A would have a very low fee H.
21 And it's just intercepting this one little piece of
22 porosity here at the wellbore. But, you know, we frac
23 all these wells so once it expands away it's contacting,
24 draining much thicker porosity. Whereas well B may not
25 be as good a well but at the wellbore it's got a thicker

1 porosity pod that it intercepts. So I guess basically
2 what I'm saying is what you see at the wellbore doesn't
3 indicate what you're going to see even 10 feet away from
4 the wellbore.

5 EXAMINER EZEANYIM: Interesting.

6 MR. BEZNER: The porosity comes and goes,
7 like I said, very lenticular, very stratographic up and
8 down this column. So this is the data. You would
9 expect to see an inclining regression through this.
10 And, if anything, it may be slightly declining if you
11 actually were forced to fit a line through those points.
12 So it kind of blurs your theory, but it gives you an
13 idea of what you're facing in developing this reservoir.
14 Basically you need to develop every well you drill and
15 see what it makes basically.

16 EXAMINER EZEANYIM: Okay. Thank you.

17 Q. (By Ms. Munds-Dry) Then let's go to your next
18 slide if we could, Mr. Bezner, Exhibit Number 16.

19 A. This is another picture of the lenticular nature
20 of the wellbore. And we're looking down on the wells
21 this time. There's four wells labeled Well A, B, C, and
22 D, the generic wells. And what we're trying to show
23 with these blobs of different colors of gray and black
24 is varying depths of productive lenses. So, you know,
25 maybe this lighter color is above this dark black piece

1 of porosity.

2 And what it also shows us is if you imagine this
3 to be a 40-acre proration unit that we need to continue
4 to develop each of these proration units fully with four
5 wellbores on each 40 acres. Because you can see that
6 one particular well is not going to intercept -- even
7 three wells won't intercept all this porosity, that we
8 need to fully develop all four wells in order to prevent
9 waste and, you know, efficiently produce this reservoir.

10 Q. And based on your discussion about the nature of
11 the reservoir and the need to drill on the currently
12 allowed density, what does that tell you then about the
13 existing allowable and whether that's enough?

14 A. Well, and I'll have some slides later on that
15 kind of illustrate this. But if you go out and fully
16 develop, you know, each 40 back to back that we're going
17 to be over the allowable on a number of these proration
18 units, and so that's what we're trying to show here.

19 Q. Let's turn to your next slide, Exhibit Number 17.
20 What are you showing us here?

21 A. This is another scatter plot, and this is what we
22 call initial GOR versus time. And to get this plot I
23 took the initial -- it was either anywhere from 6 to
24 12 months of initial production to calculate a good
25 average GOR for each well. Each one of these points is

1 Yeso producer on the shelf. And you can see there are
2 hundreds if not thousands of points.

3 What it's showing, what you would expect to see,
4 again, according to the theory is if you are, say,
5 accelerating the reserves versus tapping new reserves
6 you would be depleting the reservoir energy and you
7 would expect to see the GOR to trend up as we continue
8 drilling on this dense pattern. Put the points down,
9 and I did go through and pick the best regression line
10 through that, and, if anything, that regression line
11 shows the GOR, realizing there's quite a bit of scatter
12 in the data. But when you fit a line through it, it is
13 slightly going down versus time.

14 And you can see starting in about year 2006 is
15 when our drilling has really accelerated in this field.
16 The later points have really started to, on average,
17 brought the average GOR down slightly. So, again, this
18 is opposite of what you would expect to see. And what
19 it tells me is that we're not the depleting the energy
20 of this reservoir, that it still has its virgin
21 reservoir energy basically.

22 Q. And then what does that tell you then about the
23 impact on the reserves still in the ground?

24 A. Right. The continued development on 10-acre
25 spacing would no adversely affect any recoveries. It

1 would just make recoveries even better in my opinion.

2 Q. And I guess it's important to know, I think the
3 Examiners are already understanding, but how has
4 production occurred? Has there been any historical
5 restriction of production in this pool or even in this
6 area?

7 A. Yeah. I mean, historically there's been at least
8 two different allowables that I'm aware of that have
9 limited amount of wells. You know, if you drill up a 40
10 over the allowable then you got to start shutting some
11 wells in. You know, and that's to me, in my opinion,
12 very wasteful.

13 EXAMINER EZEANYIM: Yeah, let's explore that
14 because I don't want to miss it. That's a good question
15 you just asked. Does that comply with the last rule we
16 issued last year or what? You said that some of the
17 wells that I see are exceeding the allowables, is that
18 what you said?

19 MR. BEZNER: Yes.

20 EXAMINER EZEANYIM: Because the allowable
21 right now is 300 barrels a day per unit, right?

22 MS. MUNDS-DRY: Except for in this pool.
23 This pool still has the statewide allowable.

24 MR. BEZNER: The lower allowable.

25 EXAMINER EZEANYIM: Oh, okay. I thought the

1 question you asked was what's happening in the other
2 well that has been approved.

3 MR. BEZNER: No, no.

4 MS. MUNDS-DRY: No, huh-uh. This is just in
5 this pool and in this unit. I was asking Mr. Bezner how
6 production has occurred, whether we were stopping at the
7 allowable or not.

8 EXAMINER EZEANYIM: Oh.

9 MR. BEZNER: Yeah, all the pools around it
10 are up at 300 now.

11 EXAMINER EZEANYIM: Okay. But this one is
12 not yet a member of that.

13 MR. BEZNER: Right.

14 EXAMINER EZEANYIM: Okay, then my question
15 is made clear. I mean, he described last year what's
16 happening with the 300 barrels. Are we exceeding that?

17 MS. MUNDS-DRY: I'm sorry. Mr. Midkiff has
18 very sadly left Concho.

19 MR. BEZNER: Yes, I took his place.

20 MS. MUNDS-DRY: But Mr. Bezner is now fully
21 capable of --

22 EXAMINER EZEANYIM: Yeah, I know. Do you
23 have an idea whether you're exceeding that allowable?

24 MS. MUNDS-DRY: What can you say about the
25 overproduction? Because as you notice from my

1 application we are asking for a cancelation of
2 overproduction. So there has been overproduction in
3 this unit as there were other places in the shelf.

4 MR. BEZNER: Yeah. But since we have been
5 granted the 300 barrel-a-day allowable we are staying
6 under that. It's adequate.

7 MS. MUNDS-DRY: Except for in this area. I
8 think you're keeping -- I know Mr. Midkiff was keeping
9 track of the production.

10 MR. BEZNER: Yeah, he has --

11 MS. MUNDS-DRY: Do we still have
12 overproduction in this unit?

13 MR. BEZNER: Yes, we do. And so that's one
14 thing we're applying for is to cancel that
15 overproduction. With this higher allowable I don't
16 expect that we'll go over it again.

17 EXAMINER EZEANYIM: Okay.

18 Q. (By Ms. Munds-Dry) And actually we'll look at a
19 slide here in a minute. I think that will show why you
20 think that will happen.

21 A. Yeah.

22 Q. Let's go then to your next slide, Exhibit
23 Number 18.

24 A. Yes. This is basically another scatter plot
25 versus time. This is what we call the peek rate. And

1 to get this I just took the peak monthly production
2 volume for, again, all the wells drilled on the shelf in
3 the Yeso. And we actually go through, it's part of our
4 allowable calculation where we identify each individual
5 well, whether it's the first, second, third, or fourth
6 well drilled in that proration unit.

7 And what this plot shows is the light green
8 circles are the first well in the proration unit. And
9 then the heavy black dots are the fourth well in the
10 proration unit. We also have the data for the second
11 and third but when you put it all on one plot it's
12 really too busy to see. So we just kind of simplified
13 it to the first and the fourth. Again, according to
14 theory, if you are overdrilling a reservoir you would
15 expect to see the fourth well in the proration unit
16 producing at a lower rate, that you're depleting the
17 reservoir energy, you're basically accelerating
18 reserves. You're not really recovering any new
19 reserves.

20 What this plot shows to contradict that is
21 actually, and, again, you can see in 2006 our drilling
22 activity has really accelerated. All those heavy black
23 dots, which are the fourth well, if anything, have
24 tended to be some of the better wells in each proration
25 unit. So, again, what this shows is that we're not

1 accelerating reserves. We're tapping new reserves, and
2 we're efficiently producing this reservoir with this
3 current well density.

4 Q. Let's go to your next slide, if we could,
5 Mr. Bezner, and it's been marked as Exhibit Number 19.

6 EXAMINER EZEANYIM: Before you go there,
7 where is this unit? Where does the southern meet?
8 Because the --

9 MR. BEZNER: We're not asking for an
10 increased density, no, sir.

11 A. Concho Exhibit 19 is really a simple plot. This
12 is taking all the COG operated wells on the shelf in the
13 Yeso and summarizing them, going back to 1993 to
14 present. Your green line is your oil, is traditional,
15 the red line is gas, your blue line is water. You can
16 see the heavy black line is your well count. Again, in
17 2006 you can see that well count is really ramping up
18 steadily. I mean, we've been knocking down holes pretty
19 consistently through there.

20 The main point of this slide, magenta line at the
21 bottom is the gas/oil ratio calculated in NCF per
22 barrels of oil. Again, according to theory, if you were
23 depleting accelerating reserves, reducing reservoir
24 energy what you would see is your GOR on an average
25 basis going up in that field. Starting in 2006 to

1 present, if anything, you can see the GOR has been
2 trending generally down. And so what this shows me is
3 that we're not wasting energy, we're not accelerating
4 reserves, that we're efficiently producing this
5 reservoir with continued drilling.

6 Q. (By Ms. Munds-Dry) And then do you agree that
7 this would show you that you're continuing to intersect
8 new reserves?

9 A. Yes. Continuing to intersect new porosity.

10 Q. Let's go to your next slide, Exhibit 20.

11 A. Exhibit 20, I tried to go out and find some of
12 the last, most recent wells drilled in this area. And
13 to get a good number of wells I took both wells
14 completed in the GJ West Unit and also in the Dodd
15 Federal Unit. And these are all the wells completed in
16 2011 and 2012 in these two properties.

17 I took what we call the peak oil test. And we
18 took, again, the same data as the first approximately
19 six months of production and averaged that into barrels
20 of oil per day. And so what this gives you is a good
21 average stabilized initial production rate. I just took
22 those points and sorted them from least to greatest, and
23 that's what this plot shows. The green squares are the
24 wells that are completed in the GJ west and the black
25 circles are the Dodd Federal.

1 You can see there's a wide scatter of production
2 rates, some wells good, some wells bad. And the GJ is
3 scattered kind of consistently with the rest of the
4 wells. And also on this plot there's two horizontal
5 lines. The red line is the existing statewide rules
6 allowable of 80 barrels a day for this pool. And then
7 the blue line is the pool-specific depth bracket
8 allowable for this pool of 142 barrels a day.

9 Either case, and keep in mind, each of these
10 points is just a single well. So either allowable
11 you're looking at, depending on how good the wells are,
12 you would have to take this peak oil rate and multiply
13 by 4 for a single proration unit. So even the higher
14 allowable we would be well over. If we drilled four
15 wells like that back to back we would be well over the
16 allowable for that proration unit. So that's one reason
17 we're asking for this increased allowable.

18 Q. Mr. Bezner, I think this is the point you're
19 making and I just want to make sure it's clear and
20 Mr. Ezeanyim had asked, the existing density for the
21 statewide rules, we're not asking for any increase at
22 this time?

23 A. Right, 10-acre spicing is fine. That's all we
24 need.

25 Q. But you previously discussed the need to continue

1 with what we're allowed with four wells per spacing
2 unit?

3 A. Yes. Right.

4 Q. Now, some would say, well, you've reached the
5 allowable with one well so it's wasteful to continue to
6 drill more wells.

7 A. Right.

8 Q. But what would you say to that and the need to
9 continue to drill oil per spacing unit?

10 A. I think it's absolutely wrong that what we've
11 shown, again, statistically on average is we've
12 calculated we're only draining a little over nine acres
13 per well. So if we don't drill the rest of that acreage
14 we're actually wasting reserves.

15 Q. In your opinion then if you drill just one well
16 that may there and then meet the allowable, you're
17 leaving reserves in the ground?

18 A. Yes, ma'am.

19 Q. Okay. Let's go then to your next slide, COG
20 Exhibit Number 21.

21 A. Yes. Again, this is a generic slide. This is
22 not a particular well or a particular proration unit.
23 But what I'm trying to show is there are four production
24 declines shown here labeled first well, second well,
25 third well, fourth well. Under the existing allowable

1 of 80 barrels a day if you had to stay under that
2 allowable, and then again these are kind of a generic
3 average production rate we would expect, it would
4 effectively just delay your development of that
5 proration unit.

6 In order to stay under the allowable you wouldn't
7 be allowed to drill that fourth well until year '15 in
8 the future. And so, you know, this current allowable is
9 kind of restrictive in certain areas of the field and
10 would force us to delay full development of those
11 proration units.

12 Q. And is Concho looking at potentially doing
13 secondary recovery in this unit?

14 A. Yes. Yeah, that's a good point that one of the
15 reasons we want to continue to do full development is we
16 are looking at secondary recovery in the Yeso pool in
17 this area. And so in order to do that you would need
18 all your 10-acre spots drilled up, you know, to come up
19 with a good five-spot pattern or line drive pattern,
20 whichever you come up with. So it not only benefits us
21 in efficiently producing the reservoir but it sets it up
22 for possible future secondary recovery.

23 Q. And based on the data and your testimony today,
24 what in your expert opinion do you believe the allowable
25 should be for this new pool that we're requesting?

1 A. Well, you know, technically I would say unlimited
2 allowable would be fine. But I know you have to have a
3 number to put down, and one good reason is all the
4 surrounding pools have been granted 300 barrels a day,
5 and I think we would be able to live with 300 barrels a
6 day.

7 Q. And I would ask you the same question as to what
8 you propose is the gas/oil ratio for the pools?

9 A. And, again, there's really no technical basis to
10 limit the GOR at all, but you need a number. The
11 offsetting pools have 3,000 to 1 GOR. I think that
12 would be sufficient for our needs.

13 Q. That gives us consistency across the pools.

14 A. Exactly.

15 Q. And based on what you reviewed today, do you see
16 any damage that has been caused by the past unrestricted
17 production in this pool and in this area?

18 A. There's no evidence that I can find of any
19 damage.

20 Q. And will the granting of this application be in
21 the best interest of conservation, the prevention of
22 waste, and the protection of correlative rights?

23 A. Yes, it will.

24 Q. Were Exhibits 10 through 21 either prepared by
25 you or compiled under your direct supervision?

1 A. Yes, they were.

2 MS. MUNDS-DRY: Mr. Brooks, we move to admit
3 Exhibits 10 through 21 into evidence.

4 MR. EXAMINER: Very well. Exhibits 10
5 through 21 will be admitted.

6 [Exhibits 10 through 21 admitted into evidence.]

7 MS. MUNDS-DRY: That concludes my direct
8 examination of Mr. Bezner.

9 MR. EXAMINER: Okay. I have no questions of
10 this witness.

11 Mr. Ezeanyim?

12 EXAMINER EZEANYIM: Well, you said you will
13 be fine on limited allowable. I don't know why you said
14 this. This is a very important graph for me. I don't
15 think you really need unlimited. You said already once
16 you're not asking for unlimited.

17 MR. BEZNER: Well, I'm just saying on a
18 technical basis I can't come up with a number but you
19 need a number, and 300 barrels a day will be fine.

20 EXAMINER EZEANYIM: And I know how you come
21 up with that number, when I issued that order before.
22 And then of course at that point COG was asking for
23 unlimited gas and oil ratio, which is not going to be
24 granted because, as you said, the reservoir here has
25 production, right?

1 MR. BEZNER: Yes.

2 EXAMINER EZEANYIM: Now, you have to apply a
3 production mechanism to produce oil instead of gas,
4 right?

5 MR. BEZNER: Right.

6 EXAMINER EZEANYIM: Okay. If I approve
7 unlimited gas and oil ratio I might deplete energy.
8 Although as we know the rate of production doesn't
9 affect the recovery. But if I pool that gas very well
10 then I produce gas and MCF. But when I want to explore
11 is where I can produce oil. So that ratio will not fly
12 because at that point most of those energies granting
13 oil to the wellbore will be depleted. So you cannot be
14 granted that ratio and allowables because you have to
15 protect correlative rights.

16 So I wanted to say that because you started
17 working for them for three months or something. But we
18 don't do that. And this a very good graph.

19 MR. BEZNER: Thank you.

20 EXAMINER EZEANYIM: If you have that four
21 wells in that unit, with that as a project, I think you
22 have enough to deal with the unit. You may get up to
23 300 but at least it gives you the time. And if you look
24 at the gas/oil ratio, 3,000 barrels I think is very
25 worthwhile. Of course in 2014 you guys are going to

1 come back and tell me whether -- is that true or do we
2 go back to see what we do according to the order that
3 was issued last year. So, anyway, we are not going to
4 do unlimited allowable.

5 MR. BEZNER: Well, yeah. And I said to be
6 consistent with the offset pool we'll ask for 3,000.

7 EXAMINER EZEANYIM: What is the type of the
8 San Andres? Do you know the type of this San Adres?

9 MR. BEZNER: What type of --

10 MS. MUNDS-DRY: In the San Andres, what type
11 of reservoir?

12 MR. BEZNER: As far as is it a solution gas
13 drive? Yes, it's a solution gas drive.

14 EXAMINER EZEANYIM: Okay. And now I'm
15 looking at your Electra 1. I'm looking at those API
16 numbers. And I think the geologist, as the one person
17 mentioned, that you did some commingling.

18 MR. BEZNER: Yes.

19 EXAMINER EZEANYIM: Do you do commingling of
20 San Andres with Yeso?

21 MR. BEZNER: There are some wells that are
22 like that, yes. I don't have a plot with me. But like
23 I said this one I picked just because it was clean and
24 it went strictly from the Yeso to the San Adres so you
25 can see the difference in production.

1 EXAMINER EZEANYIM: Can you read this plot
2 again?

3 MR. BEZNER: Yes.

4 EXAMINER EZEANYIM: And your numbers are in
5 the thousands?

6 MS. MUNDS-DRY: Mr. Ezeanyim, I'm sorry.
7 Which one are you looking at?

8 MR. BEZNER: It's Exhibit 19.

9 MS. MUNDS-DRY: Exhibit 19. Thank you.
10 Sorry.

11 EXAMINER EZEANYIM: Yes. Is that the
12 number 1 or, you know, is that in thousands or that's
13 in --

14 MR. BEZNER: No. That's in units, and it's
15 barrels per day. This is daily rates.

16 EXAMINER EZEANYIM: Okay, very good. Thank
17 you.

18 MR. BEZNER: And, of course, the well count
19 is just in number of wells. And GORs and MCF per
20 barrel.

21 EXAMINER EZEANYIM: And then what is your
22 red line at the bottom?

23 MR. BEZNER: That's the GOR. It's kind of a
24 pink or a magenta line. And it's calculated in MCF per
25 barrels just because that's the easiest way to display.

1 EXAMINER EZEANYIM: Okay. I just get
2 confused because when you said that unit, you know, when
3 you mentioned MCF. That answers my question.

4 MR. BEZNER: Yeah, the traditional is
5 standard cubic per barrel but it would have overlaid my
6 other lines.

7 EXAMINER EZEANYIM: Okay, I see. I know you
8 described by unit. I think we use the small little M.
9 The unit is the thousands so I get confused which one is
10 which.

11 MR. BEZNER: Right. Yeah, I should have
12 probably put that in the legend to be more clear.

13 EXAMINER EZEANYIM: Well, all the questions
14 I answered myself. That's okay. Okay.

15 MR. EXAMINER: That's all I have.

16 MS. MUNDS-DRY: We have nothing further,
17 Mr. Examiner. We ask that this matter be taken under
18 advisement.

19 MR. EXAMINER: Very good. Case number 14885
20 will be taken under advisement, and this docket is
21 adjourned.

22 MS. MUNDS-DRY: Thank you, Mr. Examiners.

23 [Case number 14885 taken under advisement.]

24 [Docket number 27-12 adjourned]
25 I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 14885,
heard by me on 9-23-12.

REPORTER'S CERTIFICATE

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I, Lisa Reinicke, New Mexico Provisional Reporter, License #P-405, working under the direction and direct supervision of Paul Baca, New Mexico CCR License #112, Official Court Reporter for the US District Court, District of New Mexico, do hereby certify that I reported the foregoing proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings and was reduced to printed form under my direct supervision.

I FURTHER CERTIFY that I am neither employed by nor related to any of the parties or attorneys in this case and that I have no interest whatsoever in the final disposition of this case in any court.

Lisa Reinicke

Lisa R. Reinicke,
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Ex count: