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3	IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR
4	THE PURPOSE OF CONSIDERING:
5	APPLICATION OF COG OPERATING, LLC CASE NO. 14911 FOR A NONSTANDARD SPACING AND
6	PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.
7	ORIGINAL
8	
9	REPORTER'S TRANSCRIPT OF PROCEEDINGS
10	EXAMINER HEARING
11	
12	BEFORE:: DAVID K. BROOKS, Chief Examiner £2
13	RICHARD EZEANYIM, Technical Examiner-
14	October 18, 2012
15	October 18, 2012
16	
17	
18	This matter came on for hearing before the
19	New Mexico Oil Conservation Division, David K. Brooks, Chief Examiner, and Richard Ezeanyim, Technical
20	Examiner, on Thursday, October 18, 2012, at the New Mexico Energy, Minerals and Natural Resources
21	Department, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.
22	
23	REPORTED BY: Mary C. Hankins, CCR, RPR
24	New Mexico CCR #20 Paul Baca Professional Court Reporters
25	500 4th Street, Northwest, Suite 105 Albuquerque, New Mexico 87102
1. BOLPERSIE BERGE	

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Page 1 **APPEARANCES** 2 FOR APPLICANT COG OPERATING, LLC: MICHAEL H. FELDEWERT, ESQ. 3 HOLLAND & HART 110 North Guadalupe, Suite 1 4 Santa Fe, New Mexico 87501 (505) 988-4421 5 mfeldewert@hollandhart.com 6 7 8 INDEX PAGE 9 COG Operating, LLC's Case-in-Chief: 10 Witnesses: Stuart Dirks: 11 12 Direct Examination by Mr. Feldewert 4 Cross-Examination by Examiner Brooks l i 13 Cross-Examination by Examiner Ezeanyim 12 14 Greg Clark: 13 Direct Examination by Mr. Bruce 15 Cross-Examination by Examiner Ezeanyim 21,27 Redirect Examination by Mr. Feldewert 16 26 17 Hearing Concluded 30 31 Certificate of Court Reporter 18 19 20 21 22 EXHIBITS OFFERED AND ADMITTED 23 COG Exhibit Numbers 1 through 6 11 COG Exhibit Numbers 7 through 10 24 19 25

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Page 3 1 ± (8:20a.m.) EXAMINER BROOKS: At this time, we will 2 call the application of COG Operating, LLC for a 3 nonstandard -- we'll call Case Number 14911, application 4 of COG Operating, LLC for a nonstandard spacing and 5 proration unit and compulsory pooling, Eddy County, New 6 Mexico. 7 Call for appearances. 8 9 MR. FELDEWERT: Mr. Examiner, Michael Feldewert from the Santa Fe office of the law office of 10 Holland & Hart, appearing on behalf of the Applicant, 11 COG Operating, LLC. 12 I have two witnesses here today. 13 14 If I may approach? EXAMINER BROOKS: Thank you. 15 MR. FELDEWERT: Shall we have the two 16 17 witnesses sworn? EXAMINER BROOKS: Yes, please. 18 19 Would the witnesses please stand and identify themselves for the record? 20 21 MR. DIRKS: Stuart Dirks. 22 MR. CLARK: Greg Clark. 23 (Witnesses sworn.) 24 EXAMINER BROOKS: Call your first witness. 25 MR. FELDEWERT: Yes, Mr. Examiner.

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	Page 4
1	Mr. Dirks.
2	STUART DIRKS,
3	after having been previously sworn under oath, was
4	questioned and testified as follows:
5	DIRECT EXAMINATION
6	BY MR. FELDEWERT:
7	Q. Would you please state your name and then
8	identify by whom you are employed and in what capacity,
9	please?
10	A. My name is Stuart Dirks. I'm employed with COG
11	Operating, LLC in Midland, Texas as a landman.
12	Q. Have you previously testified before this
13	Division?
14	A. Yes, I have.
15	Q. And were your credentials as a landman accepted
16	and made a matter of public record?
17	A. Yes.
18	Q. Are you familiar with the application that has
19	been filed in this matter?
20	A. Yes, I am.
21	Q. Are you familiar with the status of the lands
22	in the subject area?
23	A. Yes, I am.
24	Q. And would you please turn to what's been marked
25	as COG Exhibit Number 1? And using that, would you
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Page 5 1 identify for the Examiners what the company seeks with 2 this application? Highlighted in yellow is Section 1 of 19 South, Α. 3 25 Northeast in Eddy County. We seek to form a 160-acre 4 5 nonstandard spacing unit and proration unit covering the north half of the north half of Section 1. We also seek 6 7 to pool all mineral interest in the Yeso Formation 8 within our proposed unit. 9 0. Mr. Dirks, what well will be initially dedicated to this nonstandard unit? 10 The Clydesdale 1 Fee #1H. 11 Α. And what will be the orientation of that well? 12 Ο. 13 Α. From east to west. 14 And will you have a standard penetration point Ο. in Unit A, as well as a standard bottom hole location? 15 The surface location will penetrate at a 16 Α. 17 standard location -- penetrate the formation at a 18 standard location. And, yes, the bottom hole is a standard location. 19 And what pool is involved with this particular 20 Ο. 21 application? Α. The Penasco Draw. 22 And what is the status of the lands in this 23 Ο. particular area? 24 25 They're all fee lands. Α.

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Page 6 Then turn to what's been marked as COG Number 1 Q. 2 2. Does this identify the lease donors in each tract of the north half of the north half of Section 1? 3 Yes, that's correct. 4 Α. Now, first off, how many of the lessees that Q. 5 are shown on here remain uncommitted to this proposed 6 well? 7 8 Α. Only one. 9 0. And which company is that? 10 Α. That is OXY-Y1 Company. 11 Q. And then have you -- you also note on here that there was some open acreage; is that correct? 12 13 Α. That's correct. 14 0. Have you been able to identify the owners in 15 this open acreage? Α. Yes, I have. 16 17 And were you able to secure -- or was the 0. 18 company able to secure leases from some of the minerals 19 owners in this open acreage? We've secured almost 50 leases within our 20 Α. proposed unit. 21 And if I turn to what's been marked as COG 22 Q. 23 Exhibit Number 3, is that a sample of the well proposal letter that was sent to the interest owners in the 24 proposed nonstandard unit? 25

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Page 7 1 A. Yes, itis. Ο. And it contains an AFE; does it not? 2 Α. Yes, it does. 3 4 0. If we then turn to what's been marked as COG 5 Exhibit Number 4, is this, Mr. Dirks, a list of the mineral owners in the nonstandard unit that you have 6 been unable to locate and, therefore, obtain a lease 7 from? 8 9 Α. That's correct. Was notice -- and it also shows, does it not, 10 Ο. their percentage interest in the well or in the 11 nonstandard well in issue? 12 Α. Yes, it does. 13 14 0. Was the notice of this hearing provided by publication to this subset of interest owners that you 15 have been unable to locate? 16 All except for one. 17 Α. 18 0. Which one is that? That was the estate of Rufus Rand. 19 Α. 20 And what occurred with respect to that Ο. particular estate that caused notice not to be provided? 21 22 Α. His interest did not appear on our takeoffs 23 when we first sent out the well proposals. Once we received the title opinion, that's when we found his 24 25 interest. We do have a lease from an H.C. Rand, and we

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Page 8 got these two interests confused, but, in fact, they are 1 2 separate and unrelated interests. And does the company intend to provide 3 0. 4 additional notice by publication to the estate of Rufus Rand to address this very small interest in this 5 nonstandard unit? 6 7 Α. Yes, we do. 8 0. Now, with respect to the remaining interest 9 owners shown on this list, notice was provided by publication? 10 11 Α. Yes. And if you turn to what's been marked as COG 12 0. 13 Exhibit Number 5, i t contains, does i t not, two notices 14 of publication in the newspaper of general circulation of the daily press on September 27, on the second page, 15 16 and October 7th, on the first page, correct? 17 Α. Yes. And the individuals that we just went through 18 0. 19 on the prior list are actually listed by name, or their 20 estates, in these notices of publication? 21 Yes, they are. Α. 22 Then let's turn back to Exhibit Number 3, Ο. 23 because I want to take a quick look at the AFE that's attached to this letter, that was sent with this letter. 24 25 Are the costs that are reflected on this AFE consistent

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1 with what the company has incurred for drilling similar wells in this area? 2 Yes, they are. 3 Α. Has the company made an estimate of the 4 0. overhead and administrative costs while drilling this 5 well and also while producing this well if successful? 6 Α. Yes, we have. 7 8 0. Would you please provide those numbers for the Examiners? 9 500 a month, drilling; 550 a month while 10 Α. producing. 11 And are these costs likewise consistent with 12 0. 13 what the company and other operators in this area charge for similar wells? 14 Yes, they are. 15 Α. 16 Ο. And does the company request that these figures 17 be incorporated into any order and that the order 18 provide them to be adjusted in accordance with COPAS quidelines? 19 20 Α. Yes, we do. 21 Now, with respect to the formation of the 0. nonstandard union -- first off, has the company brought 22 a geologist today to provide technical testimony in 23 support of the proposed nonstandard union? 24 25 Α. Yes.

Page 10 Q. Was the company able to identify the leased 1 mineral interest owners in the 40-acre tracts 2 3 surrounding the proposed nonstandard unit? A. Yes, wedid. 4 And did the company then include these leased 5 Ο. б mineral owners in the notice of this hearing? A. Yes, wedid. 7 And finally, then, is Exhibit Number 6 an 8 Ο. affidavit with attached letters providing notice of this 9 hearing, then, to all the affected parties? 10 11 A. Yes. Mr. Dirks, were Exhibits 1 through 6 prepared 12 Ο. 13 by you or compiled under your direction and supervision? 14 A. Yes, they were. 15 MR. FELDEWERT: Mr. Examiner, at this time 16 we'd move for admission into evidence of Exhibits COG 1 17 through 6. 18 EXAMINER BROOKS: 1 through 6 are admitted. 19 (COG Exhibit Numbers 1 through 6 were 20 offered and admitted into evidence.) 21 MR. FELDEWERT: That concludes my examination of this witness. 22 23 EXAMINER BROOKS: Thank you. 24 25

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Page 11 1 CROSS - EX/AMINATION 2 BY EXAMINER BROOKS: 3 Ο. You said the Penasco Draw pool. Is that Penasco Draw Glorieta-Yeso, or what is it? 4 San Andres. 5 Α. Q. San Andres. 6 Now, is this to be a San Andres or a 7 8 Blinebry? 9 A. It's to be Yeso. 10 0. So the Penasco Draw-San Andres pool includes the Yeso Formation? 11 Α. It's the San Andres-Yeso. 12 13 Q. San Andres-Yeso pool? 14 A. Yes, sir. Good. That'll be enough for me to find it. 15 Ο. 16 Now, were there any -- you said the estate that was listed did not get notice initially, but I 17 18 didn't follow everything you said about it. Is there any interest owner who has not been -- for whom you have 19 not been able to get notice to? 20 21 Just that one that has not been published. Α. 22 Just that one. 23 You say it 's not been published. Are you 0. 24 going -- are you asking -- are you asking the case be continued? 25

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age 12 1 MR. FELDEWERT: Mr. Examiner, I intend to ask the case be continued for two weeks to allow --2 (BY EXAMINER BROOKS) And you do not have an 3 Ο. address for the people entitled to that interest? 4 5 Α. No, sir. 6 I take it you are asking to pool only -- you Ο. 7 are asking for compulsory pooling only of this unit only as to the portion that's included in the Penasco Draw 8 9 San Andres-Yeso pool? 10 Yes, sir. Α. 11 You're not asking for any up-hole pooling? Ο. 12 Α. No, sir. I think that's all I need to ask. 13 Ο. 14 EXAMINER BROOKS: Mr. Ezeanyim? EXAMINER EZEANYIM: I don't have anything 15 16 for you, but --17 CROS S - EXAM I NAT I ON BY MR. EZEANYIM: 18 The bottom hole location of the well, is it 19 Ο. standard. or nonstandard? I didn't get what you said. 20 21 Α. The bottom hole is standard. It's standard? 22 Ο. 23 It's standard, yes, sir. Α. 24 Allright. That'sall. Ο. 25 Α. Thank you.

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Page 13 EX/AMINER BROOKS: 1 Thank you. MR. FELDEWERT: Call our next witness, 2 then, Mr. Greg Clark, geologist. 3 4 GREG CLARK, after having been previously sworn under oath, was 5 questioned and testified as follows: 6 DIRECT EXAMINATION 7 BY MR. FELDEWERT: 8 9 Mr. Clark, would you please state your full Q. name for the record and identify by whom you are 10 employed and in what capacity? 11 Yes. Greg Clark, geologist for Concho. 12 Α. And have you previously testified before this 13 Q. Division? 14 15 Α. I have. And were your credentials as a petroleum 16 Q. geologist accepted and made a matter of public record? 17 18 Α. They were. And are you familiar with the application 19 Q. that's been filed in this case? 20 21 Α. Yes. 22 Q. And have you, Mr. Clark, conducted a study of the lands that are the subject of this application? 23 Α. I have. 24 MR. FELDEWERT: Mr. Examiner, I would 25

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tender Mr. Clark as an expert witness in petroleum 1 2 geology. 3 EXAMINER BROOKS: He is so qualified. 4 Q. (BY MR. FELDEWERT) Mr. Clark, i f you turn, 5 then, to what's been marked COG Exhibit Number 7. Please identify that for the Examiners, and then walk 6 7 them through i t , please. 8 Α. I will. This is a regional structure map on 9 top of the Paddock Formation. What we are depicting

10 here are offset fields that have been completed in the Paddock and Blinebry in order to show the structural 11 12 analogy to where we want to drill the Clydesdale 1 Fee 13 The wells that are depicted in red are Paddock #1H. 14 producers. The wells that are depicted in blue are 15 Blinebry producers. And where they both have red and blue, they were completed in both the Paddock and the 1 G 17 Blinebry.

18 The yellow represents Concho's acreage, and 19 then the red line from east to west represents the 20 orientation and path of the Clydesdale 1 Fee #1H, in 21 which we request to drill.

Q. And I may have missed it. What is the generalstructural orientation here?

A. That's correct. If you -- if you look at the
structure map, you'll see that the general dip is from a

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Page 15 northeast to a southwest direction. We don't see any 1 major faulting or any major geologic impediments that 2 3 would separate us from any of these offset fields that we feel are analogous to where we want to drill. 4 Then turn to what's been marked as COG Exhibit 5 0. 6 Number 8. Will you please identify that for the 7 Examiners, and discuss this exhibit with us, please? I will. This is the same map in terms of it's 8 Α. 9 a geographic reference. The structure's been taken off. And the main point here is to show the line of section 10 11 in which will be the next exhibit that we'll go through. 12 The line of section is going to go from a south to north 13 direction. That is labeled A to A prime. And it depicts wells that are in these offset fields that we 14 15 feel are analogous to where we want to drill our Clydesdale 1 Fee #1H well. 16 17 Ο. Okay. If we keep this map in mind, we can then move to what's been marked as COG Exhibit Number 9. 18 Ιs this a cross section, Mr. Clark, that corresponds with 19 COG Exhibit Number 8? 20 A. Itis. 21 22 Would you please walk the Examiners through 0. this COG Exhibit Number 9, please? 23 24 Α. Again, this cross section is oriented Yes. 25 from a south to north direction, with A being on the

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south end of the cross section, and A prime being to the 1 2 north. So that would be going from the Cemetary field through the Dagger Draw, up through our Lakewood area 3 and to the Penasco Draw field area that we feel all 4 5 analogous to where we want to drill our Clydesdale 1 Fee #1H well. This cross section is a stratigraphic cross 6 7 section, and it's been flattened on top of the Paddock. The structure's been taken away in order to 8 9 show the stratigraphic relationship of the producing fields to where we would like to drill our well. 10 As you can see, there is no major stratigraphic variance from 11 these fields in relationship to where we would like to 12 We have similar log characteristics 13 drill our well. 14 throughout the cross section that we feel is analogous to where we would like to drill our Clydesdale well. 15 If you'll notice, on the wells, the second 16 well from the left and the last well on the right, 17 and then the middle of depth track, there are red rectangle 18 19 boxes that represent perforated intervals within these 20 wells. And you'll see in the well that is the second 21 from the left, that that well has been perforated and completed in the Paddock. And if you look at the last 22 23 well on the right, i t also has been perforated and 24 completed in the Paddock. 25 The first well on the left, which is to the

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Page 17 south, and the third well from the left and the fourth 1 well from the left are all Morrow gas wells. They have 2 3 not yet been completed to the Paddock. That's why you 4 don't see any perforated intervals there. 5 And then the well that we're using, that is the second from the right, is a pilot hole of one of the 6 7 recent wells that COG has drilled, so that's why you also don't see any completed interval within the 8 Paddock. 9 But overall, this cross section shows wells 10 in offset fields that have been completed in the 11 12 Yeso-Paddock Formation, and we feel that the comparison is an equivalent to where we would like to drill our 13 Clydesdale 1 Fee #1H well. 14 7And speaking of that, looking at Exhibit Number 15 0. 9, you've identified your target interval by way of a 16 17 red marking labeled "Lateral Interval," correct? 18 That is correct. That is the interval in which Α. 19 we intend to land our horizontal well. Now, Mr. Ezeanyim had a question about the 20 Ο. 21 location of the proposed well. Is COG Exhibit Number 10 22 a well diagram demonstrating compliance with the setback required by the Division's rules? 23 A. Itis. 24 Mr. Clark, what conclusions have you drawn from 25 0.

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Page 18 1 your geologic study of this area? 2 With the work that we've done, the conclusions Α. 3 are that we -- I don't feel there are any major geologic impediments or stratigraphic differences that would keep 4 us from developing these wells using full-section 5 horizontals -- or this well, rather, from drilling 6 full-section horizontals. 7 Also feel that we can be -- efficiently and 8 9 economically, the best way to drill these wells would be in a horizontal fashion, and also feel that all parts of 10 11 the unit will, on average, contribute equally to the overall production of said well. 12 So in your opinion, Mr. Clark, would the 13 0. granting of this application be in the best interest of 14 15 conservation, prevention of waste and the protection of correlative rights? 16 17 Α. Yes. And were COG Exhibits 7 through 10 prepared by 18 0. you or compiled under your direction and supervision? 19 20 Α. Yes, they were. MR. FELDEWERT: Mr. Examiner, I would move 21 for admission into evidence of COG Exhibits 7 through 22 23 10. 24 EXAMINER BROOKS: 7 through 10 are 25 admitted.

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Page 19 (COG Exhibit Numbers 7 through 10 were 1 offered and admitted into evidence.) 2 3 MR. FELDEWERT: That concludes my examination of this witness. 4 And as I alluded to earlier, Mr. Examiner, 5 we would ask this be continued for two weeks to allow 6 7 published notice to the estate that is reflected on Exhibit Number 4, the estate of Rufus Rand. 8 9 EXAMINER BROOKS: Okay. Is the two weeks -- has the notice been published? 10 11 MR. FELDEWERT: I believe not yet. I think 12 it's this Friday, tomorrow. 13 EXAMINER BROOKS: My concern is , I believe that it 's supposed to be published 20 days in advance, 14 but I ' l l have to check the rule on that, because I don't 15 16 remember exactly how it 's worded. 17 MR. FELDEWERT: You know, I ' l l check that. 18 We may have to -- I ' l l let you know. We may have to 19 back. 20 EXAMINER BROOKS: Well, I need to -- you 21 know, I need to decide what day to continue it to. 22 MR. FELDEWERT: I'm wondering -- I think 23 the publication was in the newspaper of general 24 circulation. 25 EXAMINER BROOKS: Yeah. That's what I need

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1 to figure out.

1	to figure out.
2	MR. FELDEWERT: I want to say 10.
3	EXAMINER BROOKS: 412.
4	I'm not finding i t , unfortunately.
5	Okay. 412B: ™If an Applicant has been
6	unable to locate persons entitled to notice after
7	exercising reasonable diligence, the Applicant shall
8	provide notice by publication and submit proof of
9	publication. Such proof should consist of a copy of
10	legal advertisement that was published ten business
11	days"
12	MR. FELDEWERT: I think I had i t counted.
13	I believe it was Friday.
14	EXAMINER BROOKS: I think i t would be
15	I'm thinking it would be today. You count the day
16	you're counting from, but not the day you're counting
17	to, under standard New Mexico and also Texas practice.
18	MR. FELDEWERT: Correct.
19	EXAMINER BROOKS: And I believe that i t had
20	to be published today, because Thursday, Friday,
21	Monday, Tuesday, Wednesday, Thursday, Friday, Monday,
22	Tuesday, Wednesday. So that's your ten business days.
23	MR. FELDEWERT: Let me my secretary
24	calendared i t . She may have calendared it for today. I
25	know we were going to get going to get the publication
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Page 21 1 out, but if we could continue it for two weeks --2 EXAMINER BROOKS: Yeah. I ' l lcontinuei t until November 1st. If you can show that i t was 3 published today, you'll be okay on November 1st. 4 5 Otherwise, we'll have to continue i t again until 6 November 29th. 7 MR. FELDEWERT: Correct. 8 EXAMINER BROOKS: Okay. Very good. Case Number 14911 is continued to November 9 10 1 for purposes of notice. 11 I didn't have any questions. 12 Do you have questions --13 EXAMINER EZEANYIM: Yes. EXAMINER BROOKS: -- for our witness? I'm 14 15 sorry. Back on the record in Case Number 14911. 16 17 Mr. Ezeanyim, you may question the witness. 18 CROSS-EXAMINATION 19 BY EXAMINER EZEANYIM: 20 Ο. As you were talking about, if you can't get it in by November 4th [sic], it's going to be November 21 22 29th. And one of the questions is: Is there anything 23 that will impact on your operations, you know, like you have a rig waiting or something like that? Maybe you 24 25 have to walk out and get it out today, because we don't

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Page 22 1 have anything on the 15th. So I'm wondering if you're going to have any problem if we continue to the 29th, if 2 we can't get the publication out today. 3 I believe we're okay. 4 Α. Okay. Even though it 's going to continue 5 Ο. 6 I know -- I know we can do it on November 1, but I'm 7 just -- in case you didn't. So I wanted to make sure that's the day I'm looking at. 8 9 Okay. Having taken care of that, let's go 10 back to Exhibit Number 7 on the -- on your estimated 11 if you look -- if you look at that, I'm looking at the 12 well you're going to drill. First of all, what is the pool? What is the name of the pool here? 13 14 It is the Yeso Formation. Α. 15 0. I mean the name of the pool. I believe that was testified earlier by the 16 Α. landman. 17 18 Ο. As what? 19 MR. FELDEWERT: I think i t was the -- I 20 wrote it down. Penasco Draw San Andres-Yeso pool. 21 (BY EXAMINER EZEANYIM) Okay. Now, going to 0. Section 36 just above that Section 1. Those wells add 22 23 really to what pool? 24 I'm not sure. I'd have to go back and look at Α. 25 the application.

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Page 23 You didn't find out who -- who owns these 1 0. wells -- I mean those wells? 2 3 Α. Those are COG's wells. 4 Q. Your wells? Yes, sir. 5 Α. COG wells. But you don't know what pool 6 0. they're at? 7 Α. I don't know for sure without having the APD in 8 9 front of me, sir. Now, what are the wells down south? Are those 10 0. your wells, too? Are those your wells? 11 12 How far south? Α. I'm talking about, for example, Sections 24, 13 0. 14 25, 35, 36? No, sir. 35, 36 in Section 2, those are COG 15 Α. wells. 16 Those are COG wells? 17 0-18 Α. Yes, sir. 19 And you don't know what --0. 20 Α. No,sir. You are COG, right? 21 Ο. 22 Α. Yes, I am. You know where I'm going? I'm looking at --23 Ο. 24 I'm looking at where you're going to take that orientation, you know. If those wells are produced from 25

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Page 24 there, are those wells going north-south? 1 We want to find the geology and why we want to go east-west in this 2 3 particularsection. 4 Sir, I can answer to that if you want. Α. 5 Yes. That's my question. 0. Okay. Well, i f you look overall regionally, 6 Α. 7 you'll see that there are a number of wells that are oriented north-south and a number of wells that are 8 oriented east-west. 9 There has not been one preferred direction 10 of orientation for these wells. And the reason being, 11 12 one, we have not seen any significant difference in 13 production from wells that are oriented east-west versus oil wells that are oriented north-south. But from a 14 15 geologic perspective, we feel that SHmax, the maximum

16 horizontal stress direction, is in a northeast to

17 southwest direction, and as long as you drill these

18 wells oblique and/or perpendicular to SHmax, you're 19 going to be effective when you're completing these wells

20 in terms of your fracking.

Q. I understand what you just said. This case isgoing to be continued.

A. One second. The main purpose for the east-west
in Section 1 is the southern half of that section is
offset by Cimarex. So we only own the north half of the

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section. So in order to also develop a full 160 unit,
 we'd have to orient these in an east-west direction, or
 we would only be able to do half-section laterals if we
 did them in the north-south.

Well, not if -- not if you are going to produce 5 Ο. 6 more if you go north-south. I know what you're talking 7 about. You only address east-west. Okay. But you don't want to drill north-south because of someone 8 9 else's interest. That's why we drill wells. I mean, east-west is not going to impede COG interest there. 10 Someone may have something there. Anybody can have 11 12 something. What I'm trying to determine here is for the 13 technical point. It's not who owns what, because you 14 can drill a well regardless of who owns anything, i f you 15 want to be the operator.

16 A. Sure.

My only concern is, what is the proper 17 0. 18 orientation? You know, if you are telling me the 19 proper -- why you do that is because you don't own an interest, I don't think that will fly. Because are you 20 21 going to reduce waste [sic] by going east-west, or do 22 we -- you know, is this more hydrocarbons if we go 23 north-south? I guess we can work out, I assume, even if 24 somebody has an interest in the south portion. 25 Α. So normally in --

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Page 26 1 0. So i f you tell me the geology is that way and 2 convince me that's how we can do it, I can agree with that, but not if somebody owns that. Somebody can walk 3 4 out and we can drill wells in that fashion. To be able to -- what is our aim here? To get out as much 5 hydrocarbon as we could regardless of who owns what. 6 7 MR. FELDEWERT: Mr. Examiner, can I address that with the witness? 8 9 EXAMINER EZEANYIM: Yes. 10 REDIRECT EXAMINATION BY MR. FELDEWERT: 11 Q. Mr. Clark, the company has chosen, in this 12 particular case, to drill the well from east to west; is 13 14 that correct? That's correct. 15 Α. 16 Ο. In other circumstances, the company has also chosen to drill the well north-south? 17 Α. That is correct. 18 19 Ο. In your examination of the structure, in the geology in this area, is there any difference in terms 20 of the production of hydrocarbons when you orient the 21 22 well north-south or east-west? 23 Α. We have not seen that to be the case. 24 EXAMINER EZEANYIM: What was the question? 25 What did you just ask?

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Page 27 1 Can you read that back? 2 (The record was read as requested.) 3 EXAMINER EZEANYIM: What was the answer? THE WITNESS: No. 4 5 CONTINUED CROSS-EXAMINATION 6 BY EXAMINER EZEANYIM: 7 0. How did you determine that? Α. Excuse me? 8 How did you -- what -- what tells you that 9 Ο. there is no difference? 10 Production data. 11 Α. From which wells? 12 0. From wells in Section 32, wells in Section 5, 13 Α. wells in Section 36, and then the whole Cemetary area 14 and a full analysis down there. 15 16 As I testified to earlier, the first point that we have in terms of science is the production 17 itself. And in the production, we have not seen, in any 18 of these wells that are oriented north-south versus 19 east-west, an appreciable difference in terms of 20 21 production because of the orientation. And secondly, from a geologic perspective, 22 we have evidence and science that shows us that the SH 23 maximum stress direction is in a northeast to southwest 24 25 direction. Therefore, technology tells us that if we

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stay oblique or perpendicular to SHmax, that you're 1 going to have an effective tracking when you're tracking 2 3 these wells.

And thirdly was my point about Cimarex 4 being to the south of this. So third being the less --5 6 the less strength in terms of my point, and number one 7 being the first strength, the strongest point.

8 Q. Okay. Very good. What I would like to add 9 here is, on that Section 36, directly above Section 1 operated by COG, I would like to see information on 10 11 those wells and the pooling from --

We can get that to you. In terms of 12 Α. information, what information? 13

14 Q. I want production data and from what pool they 15 are.

Okay. Well, sir, there are also other dynamics 16 Α. that are going on in that Section 36. 17

What is that? 18 Ο.

There are some wells that have been landed in 19 Α. 2.0 the lower part of the Paddock, and there are some wells that have been landed in the upper part of the Paddock. 21 22 0. That's why I want to know what pool they're producing from. 23 2.4 The Yeso is Yeso. Α. 25

What is the name of the -- is it the Penasco, Ο.

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Page 29 1 too? But I have some questions. You say you don't 2 know. Is that the Penasco or some other pool in the Yeso? 3 I am certain that whatever pool it was assigned 4 Α. to included the Yeso. 5 Can I get the production data from those wells 6 Ο. 7 in that section? As we are waiting for the continuance, I can look at that data. 8 I ' l l have to get back to you on that. 9 Α. EXAMINER BROOKS: Data -- the latest time 10 that's been reported to the OCD --11 12 EXAMINER EZEANYIM: Yeah. 13 MR. FELDEWERT: Mr. Examiner, we should 14 have access to the data already within the system, and we'd be happy to provide it to you. But that data 15 16 should be there. We can certainly provide the pool I can give you -- I know the current pool number 17 name. for Section 1 for this particular well that's been 18 19 assigned by the Oil Conservation Division. The number is 50270. 20 EXAMINER EZEANYIM: Yes, I know we can get 21 22 the data, but I don't know the name of wells, the IP 23 numbers. I can go in there and look at it. 24 THE WITNESS: They're in Section 36. MR. FELDEWERT: Mr. Examiner, I do have a 25

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Page 30 sheet here now that would provide --1 2 EXAMINER EZEANYIM: The information I need? If I have the names of the wells, that would be fine. 3 4 MR. FELDEWERT: I can give you the names of 5 the wells, yes. I'm assuming, then, Mr. Examiner that you would -- if you get an opportunity to look at that 6 7 data and the names of the wells and pool, i fyou would 8 let me know, so we can have the geologist brought back. 9 EXAMINER EZEANYIM: I will do that, because I want to look at that. 10 I'm concerned. 11 MR. FELDEWERT: Okay. EXAMINER EZEANYIM: That's all I have. 12 13 Thank you. EXAMINER BROOKS: 14 Very good. Case Number 15 14911 will be continued to November 1st, 2012 for 16 purposes of notice. 17 (The hearing concluded, 8:55 a.m.) 18 19 a somplete record of the procession 9n ~ jtaatnmer tworing of Case No. 14 22 fee "eaxi bj^rne o* iJLrLJ. 22 Oil Conservation Division 23 24 25

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Page 31 STATE OF NEW MEXICO 1 COUNTY OF BERNALILLO 2 3 CERTIFICATE OF COURT REPORTER 4 I, MARY C. HANKINS, New Mexico Certified 5 Court Reporter No. 20, and Registered Professional 6 Reporter, do hereby certify that I reported the 7 foregoing proceedings in stenographic shorthand and that 8 the foregoing pages are a true and correct transcript of 9 those proceedings that were reduced to printed form by 10 11 me to the best of my ability. I FURTHER CERTIFY that the Reporter's 12 Record of the proceedings truly and accurately reflects 13 the exhibits, if any, offered by the respective parties. 14 I FURTHER CERTIFY that I am neither 15 16 employed by nor related to any of the parties or attorneys in this case and that I have no interest in 17 the final disposition of this case. 18 19 Maux (Hankind 20 MARY <Zi. HANK INS, CCR, RPR 21 Paul Baca Professional Court Reporters New Mexico CCR No. 20 22 Date of CCR Expiration: 12/31/2012 23 24 25