Page 1

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

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

APPLICATION OF COG OPERATING, LLC CASE NO. 16019 FOR A NONSTANDARD OIL SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

March 22, 2018

Santa Fe, New Mexico

BEFORE: WILLIAM V. JONES, CHIEF EXAMINER DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, William V. Jones, Chief Examiner, and David K. Brooks, Legal Examiner, on Thursday, March 22, 2018, at the New Mexico Energy, Minerals and Natural Resources Department, Wendell Chino Building, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.

REPORTED BY: Mary C. Hankins, CCR, RPR New Mexico CCR #20 Paul Baca Professional Court Reporters 500 4th Street, Northwest, Suite 105 Albuquerque, New Mexico 87102 (505) 843-9241

Page 2 1 **APPEARANCES** 2 FOR APPLICANT COG OPERATING, LLC: 3 GARY W. LARSON, ESQ. HINKLE SHANOR, LLP 4 218 Montezuma Avenue Santa Fe, New Mexico 87501 (505) 982-4554 5 glarson@hinklelawfirm.com б 7 INDEX PAGE 8 9 Case Number 16019 Called 3 COG Operating, LLC's Case-in-Chief: 10 11 Witnesses: Matt Solomon: 12 13 Direct Examination by Mr. Larson 3 Cross-Examination by Examiner Brooks 11 Cross-Examination by Examiner Jones 14 11 Recross Examination by Examiner Brooks 12 Recross Examination by Examiner Jones 12 15 Redirect Examination by Mr. Larson 15 16 Brian Sitek: 17 Direct Examination by Mr. Larson 16 18 Cross-Examination by Examiner Jones 20 Redirect Examination by Mr. Larson 22 19 20 Proceedings Conclude 23 24 21 Certificate of Court Reporter 22 23 EXHIBITS OFFERED AND ADMITTED 24 COG Operating, LLC Exhibit Numbers 1 through 9 11 25 COG Operating, LLC Exhibit Numbers 10 and 11 19

Page 3 (8:40 a.m.) 1 2 EXAMINER JONES: Are there any other notice cases on the docket? I don't think there is, but if 3 anyone knows of one --4 5 I'll start on the top of the docket then. Call Case Number 16019, application of COG Operating, 6 7 LLC for a nonstandard oil spacing and proration unit and 8 compulsory pooling in Lea County, New Mexico. 9 Call for appearances. MR. LARSON: Good morning, Mr. Examiner. 10 11 Gary Larson, with the Santa Fe office of Hinkle Shanor, for the Applicant, COG Operating. I have two witnesses. 12 13 EXAMINER JONES: Any other appearances? Will the witnesses please stand and the 14 court reporter swear the witnesses? 15 16 (Mr. Solomon and Mr. Sitek sworn.) 17 MR. LARSON: May I proceed? 18 EXAMINER JONES: Yes. Thanks. 19 MATT SOLOMON, 20 after having been first duly sworn under oath, was questioned and testified as follows: 21 22 DIRECT EXAMINATION BY MR. LARSON: 23 24 Good morning, Mr. Solomon. 0. 25 Morning. Α.

Page 4 1 Would you state your name for the record? Q. 2 Α. Matt Solomon. 3 Q. Where do you reside? Midland, Texas. 4 Α. 5 By whom are you employed and in what capacity? Q. COG Operating, LLC. I'm a staff landman. б Α. 7 And what is the focus of your responsibilities 0. 8 as a landman at COG? 9 Α. I have an area in southeast New Mexico, specifically Lea County. 10 11 And are you familiar with the land matters that 0. 12 pertain to COG's application? 13 Α. I am. 14 Have you previously testified at a Division Q. 15 hearing? 16 Α. I have. 17 Q. And at each of those hearings, did the Examiner 18 accept your qualifications as an expert in petroleum 19 land matters? 20 Α. It did. MR. LARSON: Mr. Examiner, I tender 21 Mr. Solomon as an expert in petroleum land matters. 22 23 EXAMINER JONES: He is so qualified. 24 (BY MR. LARSON) Mr. Solomon, would you identify 0. 25 the document marked as Exhibit Number 1?

Page 5 This is the C-102 which we submitted in 1 Α. Yes. 2 our request for a nonstandard spacing and proration unit for our Mortarboard Federal Com 13H. 3 4 ο. Is Exhibit Number 1 a true and correct copy of the C-102 for the Mortarboard Federal Com #13H? 5 6 Α. It is. 7 That's a bit of a mouthful. I'll refer to it Ο. 8 as the Mortarboard well. 9 Directing your attention to the east half of the southwest quarter of the well, which is not 10 included in the project area, does COG have other 11 12 development plans for that acreage? 13 Α. We do. We are planning to do a mile-and-a-half well to include that acreage, and that well will drill 14 from south to north. 15 16 And what formation is COG seeking to pool? Q. 17 Α. Bone Spring. 18 Are there any depth exceptions in the Bone Q. 19 Spring? 20 Α. No. 21 Would you next identify the document marked as Q. 22 Exhibit 2? 23 This shows the proposed well that we're Α. Yeah. 24 seeking to drill in the dashed line. North of it, it 25 shows existing wells that we also drilled in the Bone

Page 6 Spring Formation operated by Mewbourne. 1 2 And was this exhibit prepared by Mr. Sitek who 0. 3 will be providing the geology testimony? That's correct. 4 Α. 5 Would you identify the document marked as Q. Exhibit 3? 6 7 This document is a breakdown of the Α. Yes. 8 working interest ownership in this proposed 1.5 mile 9 well. You can see, as shown on the second page of the exhibit, the breakdown of the working interests in both 10 11 tracts and the overall working interest in the unit. 12 0. And did you prepare this document? 13 I did. Α. 14 And does COG hold working interests within each 0. 15 quarter-quarter section of the proposed project area? 16 Α. It does. 17 Q. Would you identify the document marked as 18 Exhibit 4? 19 Yes. This is an example of the well-proposal Α. 20 letter that we sent out to all working interest owners or unleased mineral interest owners. 21 22 And does it also include Federal Express 0. 23 delivery information? 24 Α. It does. 25 And did you prepare and sign the well-proposal 0.

Page 7 letters that were sent out? 1 2 I did. Α. 3 Q. And was the well-proposal letter sent to each of the interests identified in Exhibit 3? 4 5 Α. Correct. Did they all receive that letter? 6 0. 7 They did. Α. 8 Q. And after you sent the well-proposal letters did you communicate with the interest owners --9 10 Α. We did. 11 Ο. -- uncommitted interest owners? 12 Α. We did. And what was the outcome of those 13 Q. 14 communications? Two have now signed joint operating agreements 15 Α. with us. That would be OneEnergy and Energen. 16 17 And in your opinion, has COG made a good-faith 0. 18 effort to obtain voluntary joinders in the Mortarboard 19 well? 20 It has. Α. 21 Would you next look at Exhibit Number 5? Q. 22 Α. Yes. This is the notice sent out by your firm 23 on our behest notifying people of this hearing. And was the hearing notice letter sent to each 24 Q. of the interests identified in Exhibit 3? 25

Page 8 1 Α. It was. 2 0. Would you next identify the document marked as 3 Exhibit 6? Yeah. This is a map indicating the offset 4 Α. 5 interest to this proposed Mortarboard well. Did you also prepare this document? 6 0. 7 Α. I did. 8 Q. And would you identify the document marked as Exhibit 7? 9 10 Yes. This is the letter prepared by your firm Α. on our behest notifying all those offset owners of this 11 12 application. And did COG have good addresses for all of the 13 Q. offset interests? 14 Tt. did. 15 Α. Did they have a good address for Blackburn? 16 Q. 17 Α. It does. Was that letter returned? 18 0. 19 Α. It was. 20 And did COG publish notice of today's hearing? 0. 21 Yes, it did. Α. 22 0. And which publication was the notice? It was in the "Hobbs News-Sun." 23 Α. 24 And what is the date of the publication? Q. 25 Date of publication was March 1st. Α.

Page 9 Would you identify the document marked as 1 0. 2 Exhibit 8? 3 Α. Yeah. This is a correct copy of that 4 publication. 5 It's the Affidavit of Publication? Q. 6 Α. Correct. 7 And would you identify your final exhibit, 0. 8 which is Number 9? 9 This is a copy of the AFE that was sent for Α. each well proposal to the working interest owners or 10 11 unleased mineral interest owners in the unit. 12 0. And is Exhibit 9 a true and correct copy of 13 those AFEs that were sent to the uncommitted interests? It is. 14 Α. 15 And what is the total estimated well costs Ο. 16 indicated on the AFE? 17 A little more than \$10.5 million. Α. And is the estimated cost consistent with the 18 Q. 19 costs incurred by COG for similar Bone Spring 20 mile-and-a-half wells? It is. 21 Α. 22 Do you have a recommendation for the amount COG 0. 23 should be paid for supervision and administrative 24 expenses? 25 Yeah, the standard -- the standard rate of Α.

Page 10 7,000 and 700. 1 2 And are those amounts similar to and consistent 0. 3 with those charged for COG further Bone Spring mile-and-a-half wells? 4 5 Α. That's correct. 6 And are they also the amounts set out in the Q. 7 JOA for the Mortarboard well? 8 Α. Correct. And do you also recommend the rates for 9 Q. supervision and administrative expenses be adjusted 10 11 periodically pursuant to the COPAS accounting procedure? I do. 12 Α. 13 And is COG also requesting a 200 percent charge 0. 14 for the risk of drilling and completing the Mortarboard well? 15 16 Α. It does. 17 Q. In your opinion, will the granting of COG's 18 application avoid the drilling of unnecessary wells, 19 protect correlative rights and serve the interests of 20 conservation and prevention of waste? 21 Α. I do [sic]. 22 MR. LARSON: Mr. Examiner, I'd move the 23 admission of Exhibits 1 through 9. 24 EXAMINER JONES: Exhibits 1 through 9 are 25 admitted.

Page 11 (COG Operating, LLC Exhibit Numbers 1 1 through 9 are offered and admitted into 2 3 evidence.) MR. LARSON: And I will pass the witness. 4 EXAMINER JONES: Mr. Brooks? 5 6 CROSS-EXAMINATION 7 BY EXAMINER BROOKS: 8 What pool is this in? Q. 9 Α. We have been told that it is going to be an Avalon wildcat pool, but we have not been assigned a 10 pool code yet. 11 12 Q. Okay. Yeah. You have to get those from Paul 13 Kautz. Nobody else knows anything about it. 14 The spacing would be statewide, right, 40-acre? 15 16 Α. Correct. 17 Q. I think that's all I have. 18 CROSS-EXAMINATION 19 BY EXAMINER JONES: 20 40-acre Bone Spring oil and maybe wildcat. Q. But 21 it's Upper Bone Spring. 22 EXAMINER BROOKS: Oh, I did -- I guess I did --23 24 25

	Page 12
1	RECROSS EXAMINATION
2	BY EXAMINER BROOKS:
3	Q. OXY is uncommitted, and you're pooling them?
4	A. That's correct. I've had continuing dialogue
5	with them right now. They are just reviewing our joint
6	operating agreement.
7	Q. These all look like industry people. I don't
8	know about Coppedge. Coppedge, I don't know. But is
9	there anybody is there anybody that's not in the
10	business on here?
11	A. Yeah. As you pointed out, James T. Coppedge is
12	an individual who lives in Indiana, but he is the only
13	one. David Arrington is the principal behind
14	Q. Yeah. I know who David Arrington is.
15	A. Sure.
16	Q. And you've gotten an actual notice to
17	Mr. Coppedge?
18	A. Yes, we have.
19	Q. Okay. Thank you.
20	RECROSS EXAMINATION
21	BY EXAMINER JONES:
22	Q. So all of the parties in yellow are still
23	uncommitted?
24	A. Well, that has changed. Right now we do have
25	signed JOAs from OneEnergy Partners and from Energen.

Page 13 Chevron has notified us that they intend to participate 1 2 under a forced pooling order. 3 Q. Okay. So all three may -- when they signed --4 the two signed the JOAs. Does that mean you're 5 expecting them to also sign the AFE -- or the well б proposal? 7 Α. Yes. Yeah. I mean, they can be released from 8 this forced pooling request. 9 Okay. Now, which tract -- Tract 2 is the tract 0. that all of the parties -- except OXY. OXY owns 58 10 percent of Tract 1, and they're still a party. 11 12 Α. Correct. 13 Okay. So it's one little fee tract, and the 0. 14 rest is all federal? 15 Α. Correct. 16 And the fee tract is even split between COG and Q. 17 OXY. That's interesting. 18 The federal tract is, not the fee tract. Α. 19 Okay. Tract 1 is the big federal tract? Q. 20 Correct. Α. 21 And the location of the well, is that -- this Q. 22 is federal, and it's not permitted yet. So is it --23 you've got location -- footage locations on your -- is 24 that -- did you schedule an on-site yet or anything? 25 Yes. That's been done. Α.

	Page 14
1	Q. That's been done already?
2	A. Yeah.
3	Q. So you pretty much the location will not
4	change?
5	A. No.
6	Q. You don't expect it to change?
7	A. No.
8	Q. And you're going for a standard location
9	A. Correct.
10	Q completed location?
11	A. Correct.
12	Q. Okay. And Lot 3, I've got it our records
13	say 40 40.01. I guess your records you don't say
14	what acreage you've got here. Is your acreage the same
15	as the state acreage or
16	A. You know, our title our title shows that Lot
17	3 is actually 40.01.
18	Q. Okay. Sounds good. That's what our system
19	shows, and it's not always the same, so I just wanted to
20	ask.
21	So no nonstandard location, and you've
22	noticed everyone for NSL.
23	And all pooled parties are working
24	interests?
25	A. Except for Coppedge and Arrington. And I'm

Page 15 sorry. Chevron as well. They're mineral interest 1 2 owners. 3 Q. Are there any unleased mineral owners? They're not -- it's all leases, obviously; is that correct? 4 5 No. Coppedge is an unleased mineral interest Α. owner. Arrington is an unleased mineral owner, and б Chevron owns the minerals. 7 8 Chevron. Q. 9 Α. Yes. 10 And you located everybody, sounds like? Q. 11 Α. Yes. 12 Q. Thanks very much. 13 A. You're welcome. 14 REDIRECT EXAMINATION BY MR. LARSON: 15 16 Your target interval is the Lower Bone Spring Q. 17 rather than the Upper Bone Spring? 18 A. It is. 19 EXAMINER JONES: Okay. The word "Avalon" 20 is a pool -- is a field name, basically. THE WITNESS: It's 3rd Bone Spring. 21 22 MR. LARSON: I have nothing further from this witness. 23 24 EXAMINER JONES: Thanks, Mr. Solomon. 25

	Page 16
1	BRIAN SITEK,
2	after having been previously sworn under oath, was
3	questioned and testified as follows:
4	DIRECT EXAMINATION
5	BY MR. LARSON:
6	Q. Good morning, Mr. Sitek.
7	A. Good morning.
8	Q. Would you please state your full name for the
9	record?
10	A. Brian Sitek.
11	Q. And where do you reside?
12	A. Midland, Texas.
13	Q. And by whom are you employed and in what
14	capacity?
15	A. COG Operating, LLC as a geologist.
16	Q. What is the focus of your responsibilities in
17	the geology department at COG?
18	A. The geology of southeast New Mexico.
19	Q. And are you familiar with the geological
20	aspects of the Mortarboard well and the matters
21	addressed in the application?
22	A. Yes.
23	Q. Have you previously testified at a Division
24	hearing?
25	A. No, I have not.

Page 17 And given that, would you summarize for the 1 0. 2 Examiner your educational background and experience in 3 the oil and gas industry? Sure. I earned my Bachelor's of Science degree 4 Α. 5 from the University of Kansas in geology in 2014 and my Master's of Science in geology from the University of 6 7 Kansas in 2017. And I've been working for COG Operating 8 for about six months. 9 MR. LARSON: Mr. Examiner, I tender Mr. Sitek as an expert in petroleum geology. 10 11 EXAMINER JONES: I worked with a petroleum 12 engineer from Kansas for many years. 13 THE WITNESS: Oh, yeah? EXAMINER JONES: You have large cornfields 14 15 growing outside Kansas; is that right? 16 THE WITNESS: That's right. 17 EXAMINER JONES: So qualified. 18 MR. LARSON: Thank you. 19 Ο. (BY MR. LARSON) Mr. Sitek, I'll direct your attention to Exhibit Number 2. Will the completed 20 21 interval of the Mortarboard well comply with the Division setback requirements? 22 23 Α. Yes. 24 Looking at the offset wells identified in 0. 25 Sections 35 and 36 on Exhibit 2, are those all Bone

Page 18 1 Spring wells? 2 Α. Yes. 3 Q. And in your opinion, is the north-to-south 4 orientation of the Mortarboard well appropriate for the 5 proposed project? It is. б Α. 7 Would you identify the document marked as 0. 8 Exhibit 10? 9 Yes. This is a structure map. Α. 10 And did you prepare this document? Q. 11 Α. Yes. 12 Q. And could you summarize what your map is 13 intended to depict? So it shows the proposed location of the 14 Α. Mortarboard well as the dashed line, and then it shows 15 16 structured contours of the top of the Wolfcamp. It has black lines. And a cross section, A to A prime, and COG 17 18 acreage is shown in yellow. 19 And did you prepare this exhibit? Q. 20 I did. Α. 21 I'll next ask you to identify Exhibit Number Q. 22 11. 23 This is a stratigraphic cross section, A to A Α. 24 prime. 25 And did you prepare this document? Q.

Page 19

A. I did.

1

2 Q. And what is your cross section intended to 3 depict?

A. It shows the targeted interval shown bracketed in green and the top of the Wolfcamp shown in red and the top of 3rd Bone Spring Sand in purple. And it shows the continuity of the target interval across the area.

Q. Are there any geologic faults or impediments in
9 the target interval?

10 A. No.

Q. And in your opinion, are all quarter-quarter sections to be included in the proposed project area expected to be more or less equally productive?

14 A. Yes.

Q. And in your opinion, will the granting of COG's application avoid the drilling of unnecessary wells, protect correlative rights and serve the interest of conservation and the prevention of waste?

19 A. Yes.

20 MR. LARSON: Mr. Examiner, I'll move the 21 admission of Exhibits 10 and 11.

EXAMINER JONES: Exhibits 10 and 11 are
admitted.
(COG Operating, LLC Exhibit Numbers 10 and
11 are offered and admitted into evidence.)

	Page 20
1	MR. LARSON: I'll pass the witness.
2	EXAMINER JONES: Mr. Brooks?
3	EXAMINER BROOKS: No questions.
4	CROSS-EXAMINATION
5 E	BY EXAMINER JONES:
6	Q. So you're drilling a toe-down well?
7	A. Yes.
8	Q. And is that for a reason, or why are you
9 1	putting your surface location there? That's probably a
10 1	land question, but
11	A. You know, I'm not sure. I think it may be a
12]	land issue. I'm not certain.
13	Q. Okay. Did you pick the location with the
14 v	within the vertical extent of the Bone Spring? Is this
15 y	your location?
16	A. Yes.
17	Q. And you decided to drill your well a mile and a
18 k	half. Is that why why is that?
19	A. I believe we're drilling a well from south to
20 r	north a mile and a half in the section offsetting this.
21]	I believe.
22	Q. Okay. So that well in the spacing unit
23 c	offsetting is going to develop the west half of the
24 r	northwest quarter of Section 12, is that correct, that
25 v	well you're talking about?

Page 21 I think it'll be directly offsetting this well Α. 1 2 to the south, so --3 ο. To the south? If I'm understanding you. 4 Α. So it's going to develop the west half of 5 0. southwest quarter, that other well. So you're drilling 6 7 your well to not to strand acreage? 8 Α. Correct. Even though it's still federal down there. 9 0. Okay. And what about the acreage -- the 10 fee acreage over to the west? I mean, as far as wells 11 12 go, are you -- is that acreage prospective, too? I 13 guess if you can talk about it. I'm not familiar with the -- our plans with 14 Α. 15 that acreage. Q. Okay. Okay. Well, it doesn't fall within our 16 17 rules for stranded acreage as far as the current horizontal well rules. 18 19 Why the 3rd Bone Spring Sand? 20 That's our most prospective unit in that area. Α. So other wells have drilled in that? 21 Q. 22 Α. Yeah. There are some wells just offsetting it to the north that are drilled in a similar interval. 23 Have you talked to the geologists or engineers 24 Q. 25 in the other companies that are being pooled, like

Page 22 Chevron and any of these other companies' professionals? 1 2 Α. I have not yet. 3 Q. Okay. Okay. So this is just -- are you 4 optimistic about this well? Is this well going to spawn 5 some more drilling in the area? We -- based on offset production, we think this б Α. 7 will be a productive well. 8 Q. Productive well. Okay. 9 And where are you going to put your mudloggers on this well? Are you going to put them on 10 11 at the -- at the beginning of the Delaware Formation? 12 Is that correct? 13 I think that's typically -- typically what we Α. do, yeah. 14 15 Ο. Okay. Thanks very much. 16 Α. Thank you. 17 MR. LARSON: Couple of follow-up questions, 18 Mr. Examiner. 19 EXAMINER JONES: Yes. 20 REDIRECT EXAMINATION BY MR. LARSON: 21 22 Mr. Sitek, look at Exhibit 1. There's been 0. 23 discussion about a well coming from the south. Is that 24 going to be in the east half of the southwest quarter? 25 East half of the southwest quarter? Yes. Α.

Page 23 1 And in your expert opinion, is Kansas going to Q. 2 win the national championship? A. Absolutely. 3 (Laughter.) 4 5 MR. LARSON: That's all I have, б Mr. Examiner. 7 THE WITNESS: Thank you. 8 EXAMINER JONES: Thank you very much. Good luck on that basketball team. 9 Is that it for Case 16019? 10 11 MR. LARSON: Yes, it is. EXAMINER JONES: Case 16019 is taken under 12 13 advisement. 14 (Case Number 16019 concludes, 9:03 a.m.) 15 16 17 18 19 20 21 22 23 24 25

Page 24 1 STATE OF NEW MEXICO 2 COUNTY OF BERNALILLO 3 CERTIFICATE OF COURT REPORTER 4 5 I, MARY C. HANKINS, Certified Court Reporter, New Mexico Certified Court Reporter No. 20, 6 7 and Registered Professional Reporter, do hereby certify 8 that I reported the foregoing proceedings in 9 stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings that 10 were reduced to printed form by me to the best of my 11 12 ability. 13 I FURTHER CERTIFY that the Reporter's Record of the proceedings truly and accurately reflects 14 the exhibits, if any, offered by the respective parties. 15 16 I FURTHER CERTIFY that I am neither employed by nor related to any of the parties or 17 18 attorneys in this case and that I have no interest in 19 the final disposition of this case. 20 DATED THIS 10th day of April, 2018. 21 MARY C. HANKINS, CCR, RPR 22 Certified Court Reporter New Mexico CCR No. 20 23 Date of CCR Expiration: 12/31/2018 Paul Baca Professional Court Reporters 24 25