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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:

AMENDED APPLICATION OF MARATHON OIL CASE NO. 16420 PERMIAN, LLC FOR A NONSTANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

September 20, 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, September 20, 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 MARATHON OIL PERMIAN, LLC: 3 DEANA M. BENNETT, ESQ. JENNIFER L. BRADFUTE, ESQ. MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A. 4 500 4th Street, Northwest, Suite 1000 5 Albuquerque, New Mexico 87102 (505) 848-1800 6 deanab@modrall.com jlb@modrall.com 7 8 9 INDEX 10 PAGE 11 Case Number 16420 Called 3 12 Case Presented by Affidavit 3 13 Proceedings Conclude 17 Certificate of Court Reporter 18 14 15 16 17 EXHIBITS OFFERED AND ADMITTED 18 Marathon Oil Permian, LLC Exhibit 17 Numbers 1 through 3 19 20 21 22 23 24 25

Page 3 (1:36 p.m.) 1 2 EXAMINER JONES: Let's go back to the 3 docket. Call Case Number 16420, amended application 4 of Marathon Oil Permian, LLC for a nonstandard spacing 5 and proration unit and compulsory pooling, Lea County, 6 7 New Mexico. 8 Call for appearances. 9 MS. BENNETT: Deana Bennett on behalf of 10 Marathon, and I'd like to present this case by 11 affidavit. 12 Good afternoon. 13 The case that I'm going to be presenting now is Case 16420, and this involves the Wolfcamp 14 Formation. This is a continuation or similar case as 15 16 Cases 16418 and 16419, the Ramathorn wells. This packet of materials is similar to the packet that I provided 17 18 earlier today. The first few pages are our amended 19 application. The next page is an overview map showing 20 the well's location in the unit, and then behind Tab Number 1 is the landman's affidavit. 21 22 EXAMINER JONES: Okay. 23 MS. BENNETT: And in this case, 16420, like 24 Cases 16418 and 16419, we amended the application to request alternative relief in the event that the 25

Page 4 horizontal rule is stayed, which is why we also notified 1 offsets. And this case also will be continued until 2 October 18th given the notice issue that we discussed 3 4 earlier. 5 EXAMINER JONES: Okay. MS. BENNETT: So I'd like to start with the 6 7 landman's affidavit and then move to the geologist's 8 affidavit and then my affidavit about notice. Again, this is an affidavit prepared by 9 Ryan Gyllenband, and he has previously been qualified by 10 11 the Division as an expert in -- as an expert petroleum landman. And in this case, Marathon seeks an order 12 pooling all mineral interests in the Wolfcamp horizontal 13 spacing unit underlying the west half of Section 14, 14 Township 22 South, Range 32 East. And this unit will be 15 16 dedicated to the Ramathorn Fed Com 22-32-14 WA 2H and 17 the Ramathorn Fed Com 22-32-14 WXY 7H wells. 18 When we get to the exhibits, the exhibits 19 contain a plat outlining the unit being pooled, which 20 shows the proposed well's location within the unit. Exhibit A also has information about the parties being 21 22 pooled and the nature and percent of their interests, as 23 well as their last known addresses. 24 EXAMINER BROOKS: Now, is this -- did you 25 say Wolfcamp?

Page 5 MS. BENNETT: Wolfcamp. Uh-huh. 1 2 EXAMINER BROOKS: Okay. Go ahead. 3 MS. BENNETT: Exhibit A also includes information about the working interest owners, 4 overriding interest owners and offsets. There are no 5 depth severances in the Wolfcamp here. 6 7 And based on Mr. Gyllenband's efforts, he 8 testifies that he's conducted a diligent search of 9 public records in the county where the wells are located. He conducted a phone directory search and 10 11 computer searches to locate contact information for the parties entitled to notification, and he emailed 12 proposal letters to those parties, including an AFE with 13 each letter. It's his belief that Marathon has made 14 good-faith efforts to obtain voluntary joinder of the 15 16 working interests in the proposed wells. 17 Exhibit B are the proposed C-102s for the 18 wells, and these wells will develop -- it's a wildcat 19 pool, WC-025 G-09 S233216K, Upper Wolfcamp Pool, Pool 20 Code 98166, which is an oil pool. And the producing interval for the wells will be orthodox and will comply 21 with the Division setback rules. 22 23 EXAMINER BROOKS: So this is a wildcat 24 Wolfcamp? 25 MS. BENNETT: Yes, it is.

Page 6 EXAMINER BROOKS: And so it's on 40-acre 1 2 spacing? 3 MS. BENNETT: Yes, it is. 4 EXAMINER BROOKS: And is your -- your 5 Ramathorn Federal 22-32-14 22H -- that's the one that's б kind of in the middle -- is that going to be less than 330 from the centerline? 7 8 MS. BENNETT: Yes, it is. That was the 9 Bone Spring well. 10 EXAMINER BROOKS: Oh, that's a Bone Spring. 11 MS. BENNETT: That's a Bone Spring. 12 Uh-huh. 13 EXAMINER BROOKS: Well, you're drilling a Wolfcamp --14 EXAMINER JONES: It's the next page. 15 16 EXAMINER BROOKS: Oh, I'm on the wrong 17 page. I'm sorry. MS. BENNETT: Well, that overview shows all 18 19 of the wells, if that's what you're looking at. Ιt 20 shows the Wolfcamp and the Bone Spring wells. EXAMINER BROOKS: Four wells there? 21 22 MS. BENNETT: Yeah. 23 EXAMINER BROOKS: That's all we're 24 concerned with? MS. BENNETT: Yes. And that does include 25

Page 7 the Bone Spring wells as well. 1 2 EXAMINER BROOKS: Okay. 14 WXY 7H is the 3 center. Is that a Wolfcamp well? MS. BENNETT: That is the Wolfcamp well. 4 5 Yes. 6 EXAMINER BROOKS: Okay. Now, you're on 7 40-acre spacing, so you're going to have a west 8 half-west half unit that's going to have, what, one well 9 or two wells? No. The WXY is west -- is west of the centerline of the --10 11 MS. BRADFUTE: So the 7H well is located 12 near the center of the 320-acre spacing unit, which will be within 330 feet of the adjoining spacing units, 13 basically right on the center. That's the well that'll 14 define the spacing unit, and then the other wells will 15 16 be concurrently drilled with the 7H well, but they'll be 17 marked as infill wells. EXAMINER JONES: We're not allowed to call 18 19 it a defining well, but we can say it's the well that 20 defines. 21 MS. BRADFUTE: Yes. Thank you. 22 (Laughter.) 23 EXAMINER BROOKS: I'm concerned about --24 since this is not -- the Wolfcamp is not on 320 spacing 25 here -- or not on either 320- or 160- or on 40-acre

Page 8 spacing -- right? 1 2 MS. BRADFUTE: Yes. So the spacing unit would either be -- typically, if you had a well that was 3 directly within a quarter-quarter section, you'd have 4 160-acre for a one-mile lateral. 5 6 EXAMINER BROOKS: Right. 7 MS. BRADFUTE: But here, the whole lateral 8 for that center well will be located closer than 330 9 feet to the other adjoining proximate tracts, which falls under the proximity tract rule and the horizontal 10 11 well rule. 12 EXAMINER BROOKS: Well, I'm still not sure, 13 but let's go through the presentation, and then I'll ask 14 some more questions. Go ahead. 15 16 MS. BENNETT: Great. 17 So Exhibits C and D are the sample proposal 18 letters and the authorization for expenditure, the AFEs, 19 and then Mr. Gyllenband's opinion, the estimated cost of 20 the wells set forth in the AFEs is fair and reasonable and comparable to the cost of other wells of similar 21 22 depths and lengths drilled in this area of New Mexico. 23 And in their proposal letters and in this 24 matter, Marathon is requesting overhead and 25 administrative rates of 7,000 per month for drilling and

Page 9 700 per month for producing. And in Mr. Gyllenband's 1 opinion, these rates are fair and comparable to the 2 rates charged by other operators in this area, and 3 Marathon requests that these rates be adjusted 4 periodically as provided in the COPAS accounting 5 б procedure. Marathon also requests the maximum cost plus 7 200 percent risk charge be assessed against 8 nonconsenting working interest owners and that it be 9 designated operator of the wells. Mr. Gyllenband testifies that the 10 11 attachments to the affidavit were prepared by him or compiled under his direction and that the information 12 provided herein is correct and complete to the best of 13 his knowledge, and in his opinion, the granting of this 14 application is in the interest of conservation and the 15 16 prevention of waste. 17 So with that, we can look first at Exhibit 18 A, which again is the lease tract map, and it shows 19 Tract 1 and Tract 2, the federal acreage. 20 EXAMINER JONES: So there are three wells 21 involved or -- yeah. There are three wells. EXAMINER BROOKS: Four wells. 22 23 MS. BENNETT: In Case 16420, there are just two wells, the 7H and the 2H. 24 25 EXAMINER BROOKS: Oh.

Page 10 MS. BENNETT: The other wells are the Bone 1 Spring wells that we talked about a moment ago. 2 3 EXAMINER BROOKS: They're in a different 4 case. 5 MS. BENNETT: They're in a different case. They're in a case that we discussed earlier. It's 6 7 unfortunate that the -- the next time I'll do a better 8 job on the overview map. But the overview map does have all of the wells for all of the cases because these are 9 10 part of the Ramathorn project. 11 EXAMINER BROOKS: Yeah. Well, let me --12 let me -- qo ahead and finish your presentation, and I'll clarify what's still not clear, if anything. 13 14 MS. BENNETT: Perfect. All right. A, we talked about, is the 15 16 federal acreage. The next page of A are the interests -- summary of interests, which is the same as 17 18 what we discussed earlier today. A, again, is the 19 forced pooled owners, the overrides and the offsets and 20 the summary of attempted contacts. Exhibit B is the C-102 for the 2H well and 21 the C-102 for the 7H well. And it shows the 22 surface-hole location and the bottom-hole location and 23 24 the well pool name, which is the Wolf Cat [sic] 25. Ι 25 won't go through the whole number again.

Page 11 EXAMINER JONES: Yeah. Just call it 1 2 wildcat. MS. BENNETT: Yeah. 3 And the pool code is 98166. 4 5 And Exhibit C is a copy of the proposal б letter. 7 And Exhibit D is the AFE -- the AFEs for 8 these two wells, the 2H and the 7H. And I did have a chance to email our 9 geologist about the TVD, and for the WXY well, which is 10 the 7H -- WXY 7H, which is -- the depth for that is 11 12 12,040 feet. 13 EXAMINER JONES: Okay. Thank you. MS. BENNETT: And for WA well, which is the 14 2H, which is the first C-102 in the packet, the depth is 15 16 12,150 feet. 17 EXAMINER JONES: Okay. So that one is the 18 Wolfcamp A, and the shallower one is the X-Y? 19 MS. BENNETT: That's right. 20 Before we leave the landman's affidavit and 21 exhibit and turn to the geologist's affidavit and 22 exhibit, did you have questions, or do you want to wait 23 until the very end? 24 EXAMINER BROOKS: I think I understand 25 what's going on now, though, looking at these two

Page 12 C-102s. Now, the two wells that you are including in 1 2 Case Number 16420 -- you said there were two wells. 3 MS. BENNETT: There are two wells. Yes. 4 EXAMINER BROOKS: And they are both wildcat? 5 MS. BENNETT: They are both wildcat wells. 6 7 Yes. 8 EXAMINER BROOKS: What is the zone? 9 MS. BRADFUTE: They're both Upper Wolfcamp 10 wells. 11 EXAMINER BROOKS: So they're in the same --12 well, it doesn't really matter because they're both in 13 the Wolfcamp and the spacing unit is the Wolfcamp. MS. BRADFUTE: Yeah. And they're both in 14 15 the same pool. 16 EXAMINER BROOKS: Okay. And the first one -- well, I don't know what order you drilled them, 17 18 but the first plat is the 22-32-14 WA Fed Com #2H, 19 right? 20 MS. BENNETT: Uh-huh. EXAMINER BROOKS: And one that is going to 21 be located 330 feet from the west line? 22 23 MS. BENNETT: That's right. 24 EXAMINER BROOKS: And the next one is the 25 WXY -- the WXY Fed Com #7H --

Page 13 1 MS. BENNETT: Uh-huh. 2 EXAMINER BROOKS: -- and that one is going to be located 1,307 from the west line? 3 MS. BENNETT: It looks like 1,310 from the 4 west line for the last take point. 5 EXAMINER BROOKS: Well, yeah. Okay. 6 So 7 the first take point is 1,307 and the last is 1,310; is 8 that right? 9 MS. BENNETT: Yeah. 10 EXAMINER BROOKS: So it's basically 11 about -- it's 10 feet from the centerline -- 10 feet 12 west of the centerline. 13 MS. BENNETT: Uh-huh. 14 EXAMINER BROOKS: So what you've got here is your spacing unit is D, E, L, M plus -- D, E, L, M as 15 16 your spacing unit defined by the #7H, and then your proximity tracts, then C, F, K, N are joined as 17 proximity tracts --18 19 MS. BRADFUTE: Yes, that is correct. 20 EXAMINER BROOKS: -- to define a resulting spacing unit, which consists of the west half of Section 21 22 14?23 MS. BRADFUTE: Yes. 24 EXAMINER BROOKS: Okay. That's perfectly 25 kosher. I just needed to figure it all out. Thank you.

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1	MS. BENNETT: Thank you.
2	Thanks, Jennifer.
3	Okay. With that, then we'll move to the
4	geologist's affidavit, and this is an affidavit prepared
5	by Ethan Perry, who has been qualified by the Division
б	as an expert petroleum geologist. And if you'd like to
7	look at the exhibits as I talk through his affidavit,
8	that might work well.
9	Exhibit A is the structure map of the top
10	of the Wolfcamp, and this structure map shows the
11	project area in the dashed black line. It shows the two
12	wells that we're talking about here. They're called
13	out. And then it also has a line running from A to A
14	prime, a line of cross section, and three representative
15	wells. And Exhibit A shows that the structure dips
16	slightly down to the east.
17	Exhibit B is the Wolfcamp cross section.
18	And, again, this is the three wells that are
19	representative of the unit here. And like the cross
20	section that we looked at earlier today in the earlier
21	cases, the middle well has that same sort of scaling
22	issue, the same calibration issue as we discussed
23	earlier, which is why it's not representative in that
24	dark green continuous green area. The target zone
25	for this well is in the Wolfcamp Y Sand and Wolfcamp A,

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1 as identified by the words "Producing Zone" and the 2 shaded area in the cross section, and the geologist has 3 determined that the zone is continuous across the well 4 unit.

5 Exhibit C is a gross interval isochore of б the Wolfcamp Wolfcamp B, and the geologist has 7 determined that the Wolfcamp Wolfcamp B thickness is 8 relatively uniform across the proposed well unit. And here he's using a contour interval of 20 feet. From 9 these maps, he concludes that the spacing unit is 10 11 justified from a geologic standpoint, that there are no 12 structural impediments or faulting that will interfere with the horizontal development and that each 13 quarter-quarter section in the unit will contribute more 14 or less equally to production. And he noted that the 15 16 preferred well orientation in this area is north to south, and, again, that's because the inferred 17 18 orientation of maximum stress -- excuse me -- maximum 19 horizontal stress in this area is roughly east to west. 20 Any questions about the geology exhibits 21 before I move on to notice? 22 EXAMINER JONES: Except it says "Wolfcamp 23 Y" on this cross section, but they meant X-Y, I quess. 24 MS. BRADFUTE: Yeah. They refer --25 Mr. Examiner, Marathon refers to what is sometimes

Page 16 called the Y sands to X-Y, and that's their internal 1 2 nomenclature. 3 EXAMINER JONES: Okay. 4 MS. BENNETT: Okay. Turning then to the final affidavit here, this is my affidavit that I think 5 includes information about mailing and publication for 6 7 this hearing. And what you have here on the first page 8 is a spreadsheet showing the names and addresses to 9 people whom we attempted to mail notice of the hearing and the status of those mailings, and you can see that 10 11 some of them were to be returned or have not yet been 12 delivered. Again, those are only offsets or overriding interest owners. The final page of my affidavit is an 13 affidavit of publication showing that we published 14 notice of this hearing in the "Hobbs News-Sun" on 15 16 September 7th, 2018. 17 EXAMINER BROOKS: Okay. You mentioned overrides. Did you get notice to all the overrides that 18 you think you need notice to? 19 20 MS. BENNETT: Ramathorn -- we were not able to get notice to all the overrides, but they were all 21 22 identified in the publication. 23 EXAMINER BROOKS: Okay. And did you --24 your landman, does he testify -- does he say in his affidavit that he exercised diligence to find the 25

Page 17 addresses of those who -- that you didn't have actual 1 2 notice to? 3 MS. BENNETT: Yes. EXAMINER BROOKS: Okay. I'm good then. 4 5 MS. BENNETT: Okay. Any other questions? EXAMINER JONES: No, I don't think so. 6 7 MS. BENNETT: With that, I would ask this 8 case -- well, first I'd like to move the admission of 9 Exhibits 1 through 3 with their included attachments for the record. 10 11 EXAMINER JONES: Exhibits 1, 2 and 3 with 12 the attachments are admitted. 13 (Marathon Oil Permian, LLC Exhibit Numbers 14 1 through 3 are offered and admitted into evidence.) 15 16 MS. BENNETT: And I would ask this case be continued October 18 for notice only. 17 18 EXAMINER JONES: Case 16420 is continued to 19 October 18th. 20 Thank you very much. 21 MS. BENNETT: Thank you. 22 EXAMINER BROOKS: Thank you. 23 (Case Number 16420 concludes, 1:55 p.m.) 24 25

Page 18 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 7th day of October 2018. 21 22 MARY C. HANKINS, CCR, RPR 23 Certified Court Reporter New Mexico CCR No. 20 Date of CCR Expiration: 12/31/2018 24 Paul Baca Professional Court Reporters 25