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1 2	ENERGY, MIN	STATE OF NEW MEXICO ERALS AND NATURAL RESOU OIL CONSERVATION DIVIS	JRCES DEPARTI	MENT
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4	THE PURPOSE OF			
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6	APPLICATION OF CIMAREX ENERGY COMPANY Case 1- FOR APPROVAL OF A NON-STANDARD OIL SPACING			
7		NIT AND COMPULSORY POOL		
8	LEA COUNTI, NEW	MEXICO		
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12	REPORTER'S TRANSCRIPT OF PROCEEDINGS			
13		EXAMINER HEARING	ر بانت 	Ē
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14	BEFORE:	WILLIAM V. JONES, Techr	ical Examine	er
15	DAVID K. BROOKS, Legal Examiner 2			
16	March 29, 2012			
17	Santa Fe, New Mexico			
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19	This matter came on for hearing before the			
20	New Mexico Oil Conservation Division, WILLIAM V. JONES, Technical Examiner, and DAVID K. BROOKS, Legal Examiner, on Thursday, March 29, 2012, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South St. Francis Drive, Room 102, Santa Fe, New Mexico.			aminer,
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23	REPORTED BY: J	acqueline R. Lujan, CCR	2 #91	
24	P	aul Baca Professional C	ourt Reporte	ers
		500 Fourth Street, N.W., Suite 105 Albuquerque, NM 87103 505-843-9241		
25				

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Page 2 1 APPEARANCES 2 FOR THE APPLICANT: 3 JAMES BRUCE, ATTORNEY AT LAW P.O. Box 1056 4 Santa Fe, New Mexico 87504 5 (505)982 - 20436 FOR FASKEN OIL & RANCH: 7 HOLLAND & HART MICHAEL H. FELDEWERT, ESQ. 8 110 N. Guadalupe, Suite 1 Santa Fe, New Mexico 87501 9 (505)988-442110 WITNESSES: PAGE 11 12 Hayden Tresner: 13 Direct examination by Mr. Bruce 4 Cross-examination by Mr. Feldewert 10 14 Examination by Examiner Jones 12 Examination by Examiner Brooks 15 Further Examination by Examiner Jones 15 17 16 Lee Catalano: (Telephonically) 17 Direct examination by Mr. Bruce 19 Cross-examination by Mr. Feldewert 18 23 Examination by Examiner Jones 24 19 Recross examination by Mr. Feldewert 28 20 INDEX PAGE 21 22 EXHIBITS 1 THROUGH 6 WERE ADMITTED 11 EXHIBITS 7 THROUGH 10 WERE ADMITTED 23 24 **REPORTER'S CERTIFICATE** 30 25

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Page 3 EXAMINER JONES: Let's call the first case 1 of the day, Case 14802, application of Cimarex Energy 2 Company, I assume of Colorado, for approval of a 3 4 non-standard oil spacing and proration unit and 5 compulsory pooling, Lea County, New Mexico. Call for 6 appearances. 7 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, representing the applicant. I have two 8 9 witnesses, one of whom will be by telephone. 10 MR. FELDEWERT: Mr. Examiner, Michael 11 Feldewert, Santa Fe office of Holland & Hart, appearing 12 on behalf of Fasken Oil & Ranch, and we have no witnesses here today. 13 EXAMINER JONES: Any other appearances? 14 15 Okay. Mr. Bruce, let's call your witness telephonically. MR. BRUCE: This is Mr. Bruce. You are on 16 17 the air in the OCD hearing room. Hayden is going to 18 testify first, but both of you will need to be sworn in. Will all witnesses please 19 EXAMINER JONES: 20 stand and state your names? 21 MR. TRESNER: Hayden Tresner. 22 MR. CATALANO: Lee Catalano. 23 (Two witnesses were sworn.) 24 25

Page 4 HAYDEN TRESNER 1 Having been first duly sworn, testified as follows: 2 3 DIRECT EXAMINATION 4 BY MR. BRUCE: 5 Ο. Mr. Tresner, would you state your full name 6 and city of residence? 7 Hayden Tresner, and I reside in Midland, Α. 8 Texas. Who do you work for and in what capacity? 9 Q. I'm a landman for Cimarex Energy. 10 Α. Have you previously testified before the 11 Ο. Division? 12 Α. 13 Yes. Were your credentials as an expert petroleum 14 Q. landman accepted as a matter of record? 15 16 Α. Yes, they were. 17 Are you familiar with the land matters Q. involved in this case? 18 19 Α. Yes. 20 MR. BRUCE: Mr. Examiner, I tender 21 Mr. Tresner as an expert petroleum landman. 22 EXAMINER JONES: Any objection? 23 MR. FELDEWERT: No objection. 24 EXAMINER JONES: He's so qualified. 25 Q. (By Mr. Bruce) Mr. Tresner, Could you

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1 identify Exhibit 1 and describe what Cimarex seeks in 2 this case?

3 Α. Exhibit 1 is a package of C-102s that we filed 4 with the OCD. It shows the section, Section 26 of 2032, 5 where we plan on drilling four horizontal wells, the wells being the Snoddy Federal Number 20, which has a 6 7 surface location in northeast/northeast quarter, and a 8 bottomhole location in the northwest/northwest quarter; the Snoddy Federal Well Number 21, which has a surface 9 location in the northeast/northeast guarter and a 10 bottomhole location in the northwest of the southwest 11 quarter; Snoddy Federal Number 22, which has a surface 12 13 location in the northeast/northeast guarter and a 14 bottomhole located in the southeast quarter of the southwest quarter; and then the Snoddy Federal Number 23 15 Well, which has a surface location in the 16 northeast/northeast quarter and a bottomhole in the 17 southeast/southeast quarter. 18 19 Ο. Mr. Tresnor, does Cimarex request separate 20 well units for each well? 21 Α. No, we don't. We request the formation of a single 640-acre project area, which consists of the 22 entire Section 26 of 2032. 23 And what type of wells are these? 24 Ο. 25 Bone Spring wells, second sand. Α.

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Page 6 1 Ο. What is the spacing in the Bone Spring? Forty acres. 2 Α. 3 Q. Why are all of the locations in the 4 northeast/northeast guarter of section? 5 Α. This area is a potash area, and we have a certain restrictions there in Section 26. 6 So this is the only area the BLM would allow 7 Ο. surface locations for the wells? 8 The northeast/northeast quarter is the 9 Α. Yes. 10 only spot where we can have a drill site. What is the interest ownership in Section 26? 11 Ο. And I refer you to Exhibit 2. 12 Yes. Exhibit 2 is a breakdown of the 13 Α. ownership of Section 26. You have the interest listed 14 15 for each company. And the only company that we do not have committed to the project is Dow Chemical Company. 16 Dow owns a 15 percent working interest in the south half 17 of Section 26, which would give them a seven and a half 18 percent working interest in the 640-acre project area? 19 20 Ο. Is Dow Chemical Company the only person you seek to pool? 21 22 Ά. That's correct, yes. 23 Q. Could you discuss your efforts to obtain the voluntary joinder of the interest owners in the well? 24 And I refer you to Exhibit 3. 25

Page 7 Exhibit 3 is a copy of the well proposals that 1 Α. were sent to Dow Chemical Company. They were sent in 2 3 November of last year. I had a conversation with Rose Davidson of the 4 5 Treasury Department of Dow Chemical in January of this I've talked to her on the phone twice, so we have 6 year. 7 contacted Dow. We just have not gotten a deal worked out 8 with them yet. 9 Q. Have they responded in writing or anything to your proposals? 10 11 Α. No. 12 In your opinion, has Cimarex made a good-faith Q. effort to obtain the volutary joinder of the interest 13 owners in the well? 14 15 Α. Yes. 16 Q. Does Exhibit 3 also contain the AFEs for the 17 wells? 18 Α. Yes, it does. Could you discuss the cost of these wells? 19 Q. 20 The dryhole costs for the wells are Α. 21 approximately \$3 million. The application cost approximately \$3.6 million, and a total completed well 22 cost of approximately \$6.5 million. 23 Are these costs in line with the costs of 24 Ο. 25 other Bone Spring wells drilled to this depth in this

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Page 8 1 area of New Mexico? 2 Yes, they are. Α. Do you request that Cimarex be appointed 3 Q. 4 operator of the wells? Yes, we do. 5 Α. What is your recommendation as to overhead 6 Q. 7 rates? 8 Α. For the drilling rate, we request 6,000, and for the producing well rate, 600. 9 10 Q. And are those rates equivalent to those normally charged by operators in this general area for 11 wells of this depth? 12 Α. Yes. 13 14 Ο. Do you request that the rates be adjusted periodically according to the COPAS accounting 15 procedures? 16 Α. 17 Yes. 18 0. Was Dow Chemical notified of this hearing? 19 Α. Yes. 20 0. Is that reflected in Exhibit 4? 21 Exhibit 4 is the notice pursuant to the Α. Yes. working interest owner, Dow Chemical Company. 22 What is Exhibit 5? 23 Q. 24 Exhibit 5 is a list of the offset working Α. 25 interest owners for Section 26.

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Page 9 Were the offsets notified of this hearing? 1 Q. 2 Α. Yes, they were. Is that reflected in Exhibit 6? 3 Q. Yes, it is. 4 Α. MR. BRUCE: Mr. Examiner, all of these 5 parties did receive actual notice of the application. 6 7 Ο. (By Mr. Bruce) Were Exhibits 1 through 6 prepared by you or under your supervision or compiled 8 9 from company business records? Yes, they were. 10 Α. In your opinion, is the granting of this 11 0. application in the interest of conservation and the 12 prevention of waste? 13 14 Α. Yes, it is. 15 MR. BRUCE: Mr. Examiner, I move the 16 admission of Exhibits 1 through 6. 17 EXAMINER JONES: Any objection? 18 MR. FELDEWERT: No. 19 EXAMINER JONES: Exhibits 1 through 6 will be admitted. 20 21 (Exhibits 1 through 6 were admitted.) 22 MR. BRUCE: I have no further questions of this witness. 23 24 EXAMINER JONES: Mr. Feldewert? 25

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Page 10 1 CROSS-EXAMINATION BY MR. FELDEWERT: 2 Mr. Tresner, do you know who the potash 3 Q. 4 lessees are in this particular area? 5 Α. I do not. 6 Ο. Have you had any discussions with them? 7 Α. No. Q. Your surface restriction up there in the 8 northeast quarter of -- is that the northeast quarter of 9 10 the northeast quarter? Yes, sir. 11 Α. Is that driven by the BLM, or is it driven in 12 Q. any way by the potash lessee? 13 It is driven be a combination of both, I 14 Α. 15 believe. There was an existing location there in the northeast/northeast quarter, so that's the only spot 16 where we'll be able to conduct operations. 17 Ο. When you say that, was that a restriction 18 19 imposed by the Bureau of Land Management? 20 Α. I'm not sure. 21 Okay. So you're not aware of the source of Ο. that surface restriction? 22 23 Α. No. And do you intend to utilize a single wellbore 24 Q. for all four of these laterals, or are you looking at 25

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Page 11 1 four different --2 Ά. No. Four different wellbores from a single pad site. 3 4 Ο. How large is your pad site? I believe it will be approximately 300 by 300 5 Α. to approximately 350 by 350. 6 7 That's all been approved by the BLM? Q. The permit -- the APD for the Snoddy Federal Α. 8 9 Number 20 Well, that will be the -- well, the north 10 half/north half has been approved. The other three have not been approved? 11 Ο. 12 Α. No. The C-102s have been submitted but not approved yet. 13 Q. Have you been in touch with the BLM as to why 14 they have not been approved? 15 It has to do with the timing on our part. 16 Α. We 17 just submitted them not too long ago. 18 0. Just recent submissions? 19 Α. Yes. Did you submit the remaining three about the 20 Ο. same time? 21 Α. 22 No. We submitted the Number 20 first, and then 21, 22 and 23 followed that, I believe. 23 21, 22 and 23 in a single package or about the 24 Q. same time? 25

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Page 12 Α. I'm not exactly sure. 1 MR. FELDEWERT: That's all I have. 2 Thank 3 you. 4 EXAMINATION 5 BY EXAMINER JONES: 6 Mr. Tresner, you have a dryhole cost, an after Ο. 7 casing cost and a completed well cost. Are there 8 elections between each one of those? I mean once they 9 drill the hole, is there an election to decide to set pipe? 10 Under the operating agreements that we 11 Α. Yes. 12 use, you have a casing point election that occurs at the total measured depth of the well. And you can either not 13 pay the completion cost, or you can pay the completion 14 cost and you're in the well. 15 But the completion cost would be running pipe, 16 Ο. 17 and the -- but then you've got another step there to go 18 to completed well cost? 19 Α. The dryhole costs are just the costs to drill 20 to total measured depth. The after casing point costs 21 would include the setting pipe and the stimulation, and then the total well cost would be the combination of both 22 the dryhole and the casing. 23 24 Q. Okay. And the first well is planned to be north, east, west, straight across the top of the 25

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Page 13 1 section? The first well will be the Number 2 Ά. Yes, sir. That will be drilled from east to west. 3 20. The surface hole is in the northeast/northeast quarter. The bottom 4 hole is located in the northwest/northwest guarter. 5 6 Ο. So is Dow Chemical Company -- their interests are with them now? Are they not doled out to someone 7 else? 8 9 Α. No, sir. It's still held in -- Dow Chemical 10 Company is still the record title. They own 15 percent working interest in the south half of the section. 11 12 Ο. Okay. Well, if you drill this one well and 13 you never drill any more, you would -- your allowable 14 would be 16 times the depth allowable, I assume? Yes, sir. 15 Ά. 16 ο. It would be quite a potential well, anyway. 17 Α. We have plans to drill the wellbore in the north half/north half first, the Number 20. And then we 18 would most likely drill the Number 23, which has the 19 surface hole in the northeast/northeast guarter and the 20 21 bottomhole in the southeast/southeast guarter. 22 And at that point, we would come in and drill 23 the two diagonals across the section after we drilled the north half/north half and the east half/east half. 24 25 For someone to participate here, do they have Ο.

Page 14 to send you money up front for all four wells or just for 1 2 one well at a time? We would propose these as we went. We would 3 Α. drill the north/north half first. We would evaluate that 4 5 data, and then we would drill the second well. 6 Ο. But when you drill the second well, you would 7 send another AFE? Α. Yes. 8 9 EXAMINER JONES: David, do you have questions? 10 EXAMINER BROOKS: Yeah. I missed the 11 announcements, I guess. 12 You're representing Dow, Mr. Feldewert? 13 14 MR. FELDEWERT: No, I'm not. I represent Fasken Oil & Ranch. 15 16 EXAMINER BROOKS: What is their interest 17 in this? 18 MR. FELDEWERT: They are a lessee in Sections 22 and 23. So they got notice of this. They're 19 an offset operator. 20 21 EXAMINER BROOKS: They don't have any interest in the proposed unit? 22 23 MR. FELDEWERT: Correct. 24 I suppose since Fasken EXAMINER BROOKS: 25 has an interest in the offsetting unit, I suppose I

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Page 15 should raise the issue do I have an interest in that 1 2 offset location? Because I probably should recuse myself 3 if I do. 4 Do you know the answer to that? 5 MR. FELDEWERT: I'm not going to give you 6 any advice, Mr. Brooks. 7 EXAMINER BROOKS: This is in 20 -- I don't 8 think that I do, but I don't know. I'll go ahead and ask questions. I'm not going to be making any decision 9 10 anyway. 11 EXAMINATION BY EXAMINER BROOKS: 12 13 Q. What pool is this in? This would be the Bone Spring pool. 14 Α. What Bone Spring pool; do you know? 15 Q. 16 MR. BRUCE: Mr. Examiner, I looked that up 17 at some point, but I don't remember where it is right I can email that to you later. 18 now. THE WITNESS: Lee Catalano might be able 19 to answer that. 20 The Bone Spring pools 21 EXAMINER BROOKS: usually own 40- or 80-acre spacing. I don't know of any 22 that's anything else other than 40 or 80. 23 24 MR. BRUCE: There's a couple on 160s. Ι 25 do believe these on 40s.

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Page 16 1 Q. (By Examiner Brooks) Is the ownership all an undivided interest, or is it split up by areas? 2 3 The ownership -- with the exception of Dow Α. 4 Chemical Company, the ownership is common in the north half and the south half. Dow only owns an interest in 5 the south half of the section. 6 7 0. So if you didn't, in effect, unitize all of 8 this, they wouldn't own anything in this north half/north half? 9 10 Α. That's correct. Now, you said something in response to 11 Ο. Mr. Jones' questions about casing point elections. 12 Are you aware of the fact that we don't normally provide 13 casing point elections in compulsory pooling orders? 14 Yes, I am. 15 Α. So you would give that to the people under 16 Ο. your operating agreement? 17 Α. That's correct. 18 But are you asking that we make that provision 19 Ο. 20 in the compulsory pooling order? Because I'm not aware 21 that we ever have. 22 Α. No, we're not requesting that. 23 Q. Very good. But are you asking that we make separate elections for each well? 24 That's correct. 25 Α.

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Page 17 1 Q. Okay. Dow's interest, is that an interest 2 under an oil and gas lease, or is that a federal --It's a federal lease. 3 Α. The whole section is federal? 4 Ο. There's one federal lease that covers the 5 Α. entire section. 6 Thank you. That's all I 7 EXAMINER BROOKS: 8 have. 9 EXAMINER JONES: I've got a couple comments. I looked it up, and it looks like Salt Lake 10 Bone Spring. 11 12 MR. BRUCE: That sounds right. 13 EXAMINER BROOKS: What is the spacing; do 14 you know? 15 MR. BRUCE: I'm pretty sure it's 40. I'11 16 verify that. 17 EXAMINER BROOKS: I don't guess it makes any difference. I never saw a Bone Spring pool spaced on 18 640. 19 20 EXAMINER JONES: Just a couple more points. 21 22 FURTHER EXAMINATION 23 BY EXAMINER JONES: The specifics in the application, are they all 24 Q. 25 correct? Has anything changed since -- in other words,

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Page 18 the locations of these wells, the names of the wells? 1 2 Α. The location, both the surface hole and the bottomhole for the Number 20 that we have permitted, that 3 4 stayed the same, those footages have. 5 Ο. Okay. 6 Α. I'm sure that the other three will stay the 7 same, as well. And the application was under Cimarex Energy 8 Ο. 9 Company, but Cimarex Energy Company of Colorado would be the operator? 10 That's the operator for Cimarex Energy 11 Α. 12 Company. EXAMINER JONES: As far as Fasken is 13 concerned, the entry was for Fasken Oil & Ranch, Limited. 14 But there's also a Fasken Land & Minerals, Limited? 15 16 MR. BRUCE: Mr. Examiner, I named both. Generally I -- and correct me if I'm wrong. One is the 17 entity that owns working interest. The other one is 18 19 generally the operator. And Fasken Oil & Ranch is the operator, and Fasken Land & Minerals owns the working 20 interest themselves. 21 22 EXAMINER JONES: You can tell I'm not a 23 landman. Okay. I don't believe we have any more 24 questions of this witness. 25

Page 19 1 LEE CATALANO Having been first duly sworn, testified as follows: 2 DIRECT EXAMINATION 3 BY MR. BRUCE: 4 5 Ο. Mr. Catalano, can you hear me? Α. 6 Yes. 7 Ο. Would you please state your name and city of residence? 8 9 Α. My name is Lee Catalano and I live in Midland, 10 Texas. And who do you work for? 11 Q. 12 Α. Cimarex Energy. 13 What is your job there? Q. 14 I'm a geologist with Cimarex. Α. Have you previously testified before the 15 Q. 16 Division? Α. 17 Yes. 18 ο. And were your credentials as an expert petroleum geologist accepted as a matter of record? 19 20 Α. Yes. And does your area of responsibility at 21 Q. 22 Cimarex include this portion of Lea County? Yes, it does. 23 Α. 24 Are you familiar with the geology involved in Q. in application? 25

Page 20 1 Α. Yes. MR. BRUCE: Mr. Examiner, I tender 2 Mr. Catalano as an expert petroleum geologist. 3 4 EXAMINER JONES: Any objection? MR. FELDEWERT: 5 No. EXAMINER JONES: Mr. Catalano is so 6 7 qualified. 8 Ο. (By Mr. Bruce) Mr. Catalano, could you refer 9 to Exhibit 7, the structure map, and discuss that for the Examiners? 10 Α. This is a structure map on top of the 11 Sure. Bone Spring Formation. The contour interval is 100 feet. 12 It shows that dip is to the south/southeast at about 75 13 foot per mile or thereabouts. 14 Also shown on that map are the four locations 15 16 that we are seeking here, the Number 20, the 21, 22, 23, with the surface and bottomhole locations. And also 17 18 shown are the -- this is an area that because of the potash, there's very limited drilling and not much well 19 20 control. There are two wells in the area that have 21 22 produced or are producing from the Bone Spring Formation. The well in the northeast of the northeast of 26 produced 23 24 about 1,200 barrels of oil from the Bone Spring, in the third Bone Spring carbonate to be exact. 25 That well is

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Page 21 1 currently producing out of the Delaware Sand Formation. 2 And then the well up in Section 23 produces from the Second Bone Spring Sand and the Third Bone 3 4 Spring Carbonate commingled. 5 0. Let's move on to your Exhibit 8, the type log. 6 Discuss that and tell us what the primary target is in 7 the initial well. 8 Α. Okay. Yeah, this is a type log. And what 9 I've shown on here is the top of the Bone Spring at 7,900 feet, the base of the Bone Spring at 10,970 feet. Our 10 proposed well -- all our wells will be basically twins to 11 this well. 12 13 The Number 20 well is located 100 -- or this well is located 151 feet north of the proposed Snoddy 14 Federal Number 20, so it's basically a twin to it. 15 The 16 target that we have for this well for our horizontal is 17 down in the Second Bone Spring Sand. On the exhibit 18 you're looking at, that's colored in orange. The end of curve target is at 9,900 feet TTD. 19 20 0. And what is Exhibit 9? Exhibit 9 is an isopach map, porosity isopach 21 Α. map, on the Second Bone Spring Sand Reservoir, which is 22 the target of this horizontal well. I mapped that using 23 a 10 percent density/porosity cutoff. 24 It shows the 25 trend -- hopefully, the trend of this sand coming through

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Page 22 Section 26 from kind of northwest to southeast. 1 2 ο. In your opinion, will each quarter/quarter 3 section contribute to production from these wells? Α. I do, based upon the control that I have. 4 And in your opinion, are multiple wells 5 Ο. necessarily to adequately drain this portion of the Bone 6 7 Spring Reservoir? 8 Α. Yes, they are. 9 Ο. Finally, Mr. Catalano, Exhibit 10 is the directional drilling plan. Could you just discuss that 10 briefly and describe how Cimarex completes these wells, 11 how many stages, et cetera? 12 13 Α. Okay. That's our plan that we prepare to file 14 our permits. And this was prepared under our direction by Baker Hughes Company. 15 And what it shows is our surface hole location 16 811 feet from the north, 644 from the east line. And we 17 will be drilling to the west/northwest and landing our 18 curve at a 9,900 foot TTD and basically drilling it flat 19 20 across the top part of the section there. 21 Typically what we do is run 22 five-and-a-half-inch casing through our curve and to the total of the lateral, and then do a frack, a 23 multiple-stage frack. Usually -- and we would have eight 24 stages planned with about 300,000 pounds of sand per 25

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Page 23 1 stage. Were Exhibits 7 through 10 prepared by you or 2 0. compiled from company records? 3 4 Α. Yes. 5 Ο. And in your opinion, is the granting of this application in the interest of conservation and the 6 7 prevention of waste? 8 Α. Yes, it is. 9 MR. BRUCE: Mr. Examiner, I move the 10 admission of Exhibits 7 through 10. EXAMINER JONES: Any objection? 11 12 MR. FELDEWERT: No objection. 13 EXAMINER JONES: Exhibits 7 through 10 will be admitted. 14 15 (Exhibits 7 through 10 were admitted.) 16 MR. BRUCE: And I pass the witness. 17 CROSS-EXAMINATION 18 BY MR. FELDEWERT: Mr. Catalano, I think you testified that the 19 Q. target of your proposed wells is the Second Bone Spring 20 21 Sand Reservoir; is that correct? That's correct. 22 Α. Would you agree that that's a -- the Second 23 0. Bone Spring Sand Reservoir is a reservoir that's 24 25 independent from, say, the Third Bone Spring Sand

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Page 24 Reservoir? 1 2 Α. Yes. And the target of all four of your wells is 3 Ο. going to be the Second Bone Spring Sand Reservoir; 4 5 correct? 6 Α. At this point, that's what we're applying for 7 right now. There could be other pays, I quess, that are encountered. But more than likely, that's going to be 8 9 our target. 10 That's all the questions I MR. FELDEWERT: 11 have. 12 EXAMINATION 13 BY EXAMINER JONES: 14 Ο. Mr. Catalano, the four wells you're going to drill, it looks like they would drain that sand pretty 15 16 good in the northeast quarter, but in the southwest quarter, they look kind of sparse. Is there any plans 17 to -- what would you do about that? 18 Α. What we attempt to do and what we've done in 19 20 similar situations like this, is the toe stages, we would pump extra sand to try to get more growth, to try to 21 22 drain more of the acreage, and then less sand as you go back to the northeast where those -- all four of those 23 horizontals kind of converge. But other than that, 24 that's about all you can do. 25

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Page 25 1 Ο. Did you say you're drilling a pilot hole at 2 least for one of these wells? No. Basically, that well in the northeast 3 Α. 4 quarter is the pilot hole. So we'll just drill to a 5 kickoff point of about 9,600 feet and then start turning it at the point. 6 You said that five-and-a-half casing would be 7 Ο. set at the end of your curve or at the end of the toe of 8 the well? 9 10 Α. It will be run back to the surface, all the way to the end of the well. 11 Okay. But your first perforation -- well, 12 Ο. your wells are being spudded at a standard location? 13 14 Α. Yeah. We're within the -- well within the 330 15 setbacks. 16 Ο. Do you have any trouble cementing these wells, getting a good cement job? You're going to cement the 17 whole thing; is that correct? 18 19 Α. Yes. We haven't -- I can't really recall off 20 the top of my my head any that we've had problems with, 21 and we've drilled guite a few out in this area. 22 Okay. And are you picking this target because Q. of the success of that well up in Section 23? 23 24 Α. Yes. Okay. But that well is a vertical well; is 25 Q.

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1 that correct?

2 A. That's a vertical well. It's a good vertical 3 well.

So your potash reserves would be protected 4 Ο. 5 pretty well? How would they be protected here? Α. We're drilling within -- it's kind of an offset to that 6 or a twin to that existing well, the Snoddy Number 1. 7 8 And our regulatory guy has -- one of the questions that came up was about the restrictions. 9 And our regulatory guy has communicated with the BLM in the 10 potash, and we restricted to right around that well, that 11 old wellbore. 12

13 Q. But your kickoff point is so much -- even 14 below the Delaware. It's in the Bone Spring; is that 15 correct?

A. Yeah. It will be about 4- or 500 foot abovethe our target. So it will be in the Bone Spring.

18 Q. Is there a way you could ever use these wells19 to target an upper Bone Spring horizontal target?

A. Yes. It would be -- and we have done that in
other wells in the play, drilling an additional
horizontal well perhaps in the First Bone Spring Sand or
the Avalon Shale, which would be shown on that type log.
Q. Your strike is southwest/northeast and your
dip is basically to the southeast; is that correct?

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Page 27 1 Α. Correct. Does that have anything to do with your 2 Ο. 3 fracturing of the formation? Α. 4 No. Q. Okay. So this is not a real fractured 5 6 formation; is that correct? 7 Α. It's not -- as far as we know, it's not fractured at all. 8 9 Ο. So you don't have any idea of preferential permeability? 10 We don't have any data right in the immediate 11 Α. 12 area. We have data that's a ways away from here that would indicate kind of a northeast to an east/west to 13 14 maybe a northeast drilling best stress direction. But we 15 don't know specifically right in here. 16 Your drilling engineer, which way did they Q. 17 want to drill in here, or do they care? 18 Α. Frankly, there's only one way to do this here. So we want to drill the first one, because we're more or 19 20 less drilling towards -- in the direction of where that 21 good well was up to the north. 22 Q. Okay. I have no control to the south here at all or 23 Α. 24 to the west. And what kind of -- do you do a logging while 25 Q.

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Page 28 Do you do an induction log behind your dip? 1 drilling? 2 Α. No, just a gamma ray. Just a gamma ray? Q. 3 Α. Yes. And a mud log, of course. 4 5 Q. So the mud log gives you some pretty good information? 6 7 Α. Yeah. And we'll be able to land our curve in 8 the target and then just follow it from there. It's 9 fairly -- the overall interval is a big interval of 3,400 feet, so we should be able to stay within sand. 10 11 EXAMINER JONES: Thank you. 12 THE WITNESS: Thanks. 13 EXAMINER BROOKS: No questions. 14 MR. FELDEWERT: Mr. Examiner, I do have two additional questions, if I may. 15 16 **RE-CROSS EXAMINATION** BY MR. FELDEWERT: 17 Mr. Catalano, how many barrels of fluid do you 18 Q. 19 anticipate pumping per stage of your fracks? Somewhere -- I want to say 300,000 to 400,000, 20 Α. 21 per stage, gallons. And what do you anticipate the fracture 22 Q. 23 orientation to be out here? 24 It may be northeast/southwest, or it could be Α. 25 east/west. We're not quite sure. So the well going

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Page 29 east/west here, is -- either way, it's going to -- I 1 don't think it's going to be east/west. 2 It's either 3 northeast or maybe more northerly of northeast. But again, I don't have any data right here specifically to 4 5 know that. Thank you, sir. 6 MR. FELDEWERT: 7 THE WITNESS: Yes, sir MR. BRUCE: No further questions. 8 9 EXAMINER JONES: Thank you, Mr. Catalano. 10 We're going to hang up the phone now. 11 THE WITNESS: Okay. Thank you. That's all I have, 12 MR. BRUCE: Mr. Examiner. 13 14 EXAMINER JONES: With that, we'll take 15 Case 14802 under advisement. EXAMINER BROOKS: 16 I'm sorry. Does Fasken 17 take a position on this? Are you opposing the application? 18 19 MR. FELDEWERT: We are not. 20 EXAMINER BROOKS: Very good. 21 MR. FELDEWERT: Just interested in the 22 project. 23 EXAMINER BROOKS: Thank you. 24 25 I do hereby certify that the foregoing to a complete record of the proceedings in the Examiner hearing of Case No. neard by me ou

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Oll Conservation Division

	Page 30			
1	REPORTER'S CERTIFICATE			
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3				
4	I, JACQUELINE R. LUJAN, New Mexico CCR #91, DO			
5	HEREBY CERTIFY that on February 2, 2012, proceedings in			
6	the above captioned case were taken before me and that I			
7	did report in stenographic shorthand the proceedings set			
8	forth herein, and the foregoing pages are a true and			
9	correct transcription to the best of my ability.			
10	I FURTHER CERTIFY that I am neither employed by			
11	nor related to nor contracted with any of the parties or			
12	attorneys in this case and that I have no interest			
13	whatsoever in the final disposition of this case in any			
14	court.			
15	WITNESS MY HAND this 7th day of February, 2012.			
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18				
19	Jacque Line R. Lujan, CR #91			
20	Expires: 12/31/2012			
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