

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 LOGOS OPERATING, LLC                      CASE NO. 16105  
FOR APPROVAL OF A NONSTANDARD PROJECT  
AREA COMPRISED OF ACREAGE SUBJECT TO  
A PROPOSED FEDERAL/STATE OF NEW MEXICO  
COMMUNITIZATION AGREEMENT AND A  
NONSTANDARD SPACING UNIT, SAN JUAN  
COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

May 4, 2018

Santa Fe, New Mexico

BEFORE:   MICHAEL McMILLAN, CHIEF EXAMINER  
             SCOTT DAWSON, TECHNICAL EXAMINER  
             DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the  
New Mexico Oil Conservation Division, Michael McMillan,  
Chief Examiner, Scott Dawson, Technical Examiner, and  
David K. Brooks, Legal Examiner, on Friday, May 4, 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.

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1 (8:29 a.m.)

2 EXAMINER McMILLAN: Okay. Now I would like  
3 to call Case Number 16105, amended application of LOGOS  
4 Operating, LLC for approval of a nonstandard project  
5 area comprised of acreage subject to a proposed  
6 Federal/State of New Mexico communitization agreement,  
7 San Juan County, New Mexico.

8 MR. HALL: You know, you might refer to the  
9 amended application itself, which is our Exhibit 5. The  
10 caption is a little different. We request approval of a  
11 nonstandard project area and nonstandard spacing unit,  
12 and the reason is the acreage was increased from the  
13 original application.

14 EXAMINER McMILLAN: So it's application of  
15 LOGOS Operating, LLC for approval of a nonstandard  
16 project area comprised of acreage subject to a proposed  
17 Federal/State of New Mexico communitization agreement --

18 MR. HALL: And a nonstandard spacing unit.

19 EXAMINER McMILLAN: -- and a nonstandard  
20 spacing unit, San Juan County, New Mexico.

21 Call for appearances.

22 MR. HALL: Mr. Examiner, Scott Hall, with  
23 Montgomery & Andrews in Santa Fe, appearing on behalf of  
24 the Applicant, LOGOS Operating, LLC. I have two  
25 witnesses this morning.

1 EXAMINER McMILLAN: Any other appearances?

2 MR. RANKIN: Mr. Examiner, Adam Rankin,  
3 with Holland & Hart of Santa Fe, on behalf of Hilcorp.  
4 I have one witness to make a statement in support of the  
5 application.

6 EXAMINER JONES: Okay. If the witnesses at  
7 this time would please stand up and be sworn in.

8 (Mr. Jeffus, Mr. McWilliams and  
9 Mr. Creekmore sworn.)

10 MR. HALL: Mr. Examiner, at this time we  
11 would call Chris Jeffus to the stand.

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

15 DIRECT EXAMINATION

16 BY MR. HALL:

17 Q. For the record, please state your name.

18 A. My name is Christopher Jeffus.

19 Q. Mr. Jeffus, by whom are you employed and in  
20 what capacity?

21 A. I am vice president of land and legal for LOGOS  
22 Operating, LLC.

23 Q. And you've not testified before the Division  
24 and had your credentials accepted; is that right?

25 A. I have not.

1           **Q.    Would you give the Examiners a summary of your**  
2           **educational background and work experience?**

3           A.    Sure.  I graduated in 2006 from Texas A & M  
4           University in College Station with a bachelor's in  
5           accounting and a master's in finance, and then from the  
6           University of Texas in 2009 was my juris doctorate.  
7           Immediately after law school, I began working for a  
8           small oil and gas law firm in Houston focused entirely  
9           on oil and gas.  And in 2014, I joined EnerVest working  
10          Utah properties and subsequently the San Juan Basin for  
11          EnerVest.  And in 2015, I came to LOGOS and have been  
12          working entirely in the San Juan Basin since that time.

13          **Q.    And you're familiar with the application we**  
14          **filed in this case?**

15          A.    I am.

16          **Q.    And you're familiar with the lands that are the**  
17          **subject of the application?**

18          A.    I am.

19                   MR. HALL:  At this point we would offer  
20          Mr. Jeffus as a qualified expert petroleum landman.

21                   MR. RANKIN:  No objection.

22                   EXAMINER McMILLAN:  So qualified.

23          **Q.    (BY MR. HALL) Would you explain to the**  
24          **Examiners what LOGOS is seeking by this application?**

25          A.    Yes.  LOGOS is seeking an approval of a

1 640-acre nonstandard spacing unit and nonstandard  
2 project area to conform to a 640-acre planned  
3 communitized area covering the Gallup Formation  
4 underlying the south half of Section 9 and the north  
5 half of Section 16, Township 23 North, Range 8 West.

6 The designated project area and nonstandard spacing unit  
7 includes one existing horizontal Gallup oil well and is  
8 intended to include four additional horizontal Gallup  
9 oil wells drilled in the Nageezi Gallup Oil Pool.

10 LOGOS is also seeking the dedication of the  
11 entire 640-acre nonstandard project area and nonstandard  
12 spacing unit to the existing Gallup oil well and, when  
13 drilled, to the four additional horizontal Gallup oil  
14 wells.

15 **Q. All right. Let's turn to Exhibit 1. Does this**  
16 **depict the communitized area?**

17 A. This does.

18 **Q. And it shows five wells. One is in red. Is**  
19 **that an existing well?**

20 A. Yes. That's the Heros 23 08 090 1H.

21 **Q. And is it currently subject to a**  
22 **communitization agreement?**

23 A. It is subject to a 160-acre communitization  
24 agreement.

25 **Q. What will happen to that communitization**

1     **agreement if this application is approved?**

2           A.     If this application is approved, we anticipate  
3     that the 640-acre communitization agreement will be  
4     approved, and the 160 acres will be terminated or  
5     superseded.

6           **Q.     All right. And you mentioned the**  
7     **Nageezi-Gallup Pool. Is that pool spaced on 40-acre**  
8     **units?**

9           A.     That is. It is standard spacing.

10          **Q.     Would you describe the leasehold ownership**  
11     **within the 640 acres?**

12          A.     There are three leases collectively covering  
13     this 640 acres: The Gallup rights and the federal lease  
14     covering the south half of Section 9 and 280 acres in  
15     the north half of Section 16, a State of New Mexico  
16     lease -- the Gallup rights are owned by LOGOS -- and one  
17     State of New Mexico lease covering 40 acres. The Gallup  
18     operating rights are owned by Hilcorp.

19          **Q.     And referring back to Exhibit 1, can you**  
20     **explain to us what plans LOGOS has for further**  
21     **development of the acreage?**

22          A.     Yes. If this application is approved, we plan  
23     to drill four additional horizontal Gallup oil wells in  
24     the very near future. These are depicted as the 2H, 3H  
25     4H and 5H on Exhibit A, and we plan to concurrently



1 develop those.

2 Q. And all of these wells are drilled off of a  
3 common pad?

4 A. They will be, yes.

5 Q. And will that minimize destruction of the  
6 surface resources?

7 A. Yes. And it's been encouraged by the BLM and  
8 the State Land Office.

9 Q. How soon do you plan to commence the additional  
10 four wells?

11 A. Depending on the timing of this application,  
12 within the month, all four.

13 Q. Let's turn to Exhibit 2. Would you identify  
14 that exhibit, please?

15 A. Yes. This is the form of communitization  
16 agreement on the State Land Office form for federal and  
17 state lands being communitized, and it covers the  
18 640-acre proposed communitization agreement.

19 Q. And has the 640-acre communitization agreement  
20 been discussed with the BLM and the New Mexico State  
21 Land Office?

22 A. Yes, it has.

23 Q. And have those agencies indicated their  
24 preliminary approval for --

25 A. Yes, they have.

1           Q.    In your opinion, can the Gallup Formation  
2 reserves underlying this project area be efficiently and  
3 economically recovered from the 640-acre project area if  
4 configured as proposed?

5           A.    Yes.

6           Q.    Is the approval of the area subject to the  
7 communitization agreement as a single project area a  
8 logical extension of the Division's Rule 19.15.16.7.F?

9           A.    Yes, it is. It's consistent with part two of  
10 that definition.

11          Q.    And you're familiar with the Division's rules  
12 about spacing units and project areas?

13          A.    Yes.

14          Q.    Does this configuration of the unit result in  
15 any stranded acreage anywhere?

16          A.    No, it does not.

17          Q.    Let's turn to Exhibit 3 and identify that,  
18 please.

19          A.    Yes. Exhibit 3 is a -- well, a map again  
20 showing the nonstandard spacing unit and project area  
21 and communitized area in blue and then the operators  
22 or -- action in [sic] operator, the Gallup operating  
23 rights owner of all adjacent spacing units.

24          Q.    And all of those offset separators have been  
25 notified of LOGOS' application?

1           A.    Yes, they have.  And they actually participated  
2   in the formation of this communitization agreement, so  
3   they're very well aware.

4           Q.    In your opinion, Mr. Jeffus, will granting  
5   LOGOS' application be in the interest of conservation,  
6   prevent waste and result in the protection of  
7   correlative rights?

8           A.    Yes.

9           Q.    Were Exhibits 1 through 3 prepared by you or at  
10   your direction?

11          A.    Yes.

12                   MR. HALL:  And at this point, Mr. Examiner,  
13   we would move the admission of Exhibits 1 through 3,  
14   along with our notice exhibits, 4 and 5.  Exhibit 4 is  
15   notice for the original application.  Out of an  
16   abundance of caution, we renotified for the amended  
17   application well, and that is Exhibit 5.  We move the  
18   admission of 1 through 5.

19                   EXAMINER McMILLAN:  Any objections?

20                   MR. RANKIN:  No objections.

21                   EXAMINER McMILLAN:  Exhibits 1 through 5  
22   may now be accepted as part of the record.

23                           (LOGOS Operating, LLC Exhibit Numbers 1  
24                           through 5 are offered and admitted into  
25                           evidence.)

1 MR. HALL: Pass the witness.

2 MR. RANKIN: No questions from me.

3 CROSS-EXAMINATION

4 BY EXAMINER McMILLAN:

5 Q. Here's the first question: Is Nageezi frozen?

6 A. Nageezi is frozen. Yes.

7 Q. So then technically aren't you going to have  
8 two pools in here?

9 A. No. There is only one pool. The entire 640  
10 acres is covered by Nageezi Gallup Pool.

11 Q. Oh, that's easy.

12 A. On the plat, there were some Basin Mancos.  
13 There are some adjacent areas that are Basin Mancos, but  
14 the 640 is entirely --

15 Q. Okay. I see.

16 And then for notification, were all  
17 affected parties properly notified for the original 600?

18 MR. HALL: Yes.

19 EXAMINER McMILLAN: And do you expect there  
20 to be any notification problems with the additional 40?

21 MR. HALL: I hope not. It was very recent.

22 EXAMINER McMILLAN: Okay. So obviously  
23 this case would have to be continued, because the  
24 problem I'm getting is that the affected parties'  
25 interest would change for the 600 to the 640.

1                   MR. HALL: Well, that's right. And I had  
2   this discussion with Mr. Brooks, and we discussed  
3   whether there would be a need to -- whether we could go  
4   on the existing advertisement, but it was amended as  
5   well. So we anticipate that the record will need to be  
6   kept open until May 17th to allow some time for  
7   notification by the Division under its advertisement.  
8   It is --

9                   EXAMINER BROOKS: That is correct. That is  
10   what I decided ought to be done under the circumstances,  
11   and I think it can be done. But I think I have checked,  
12   and there is no requirement that the Division  
13   advertisement actually go out 20 days in advance of a  
14   hearing. And the strange thing about it -- that's a  
15   strange thing because they don't ever go out 20 days  
16   before the hearing because there is only 14 days between  
17   one hearing and the next hearing. Yeah. I think it can  
18   be done that way.

19                  MR. HALL: So the current docket  
20   advertisement is not the amendment. So the amendment  
21   will show up on the May 17th docket.

22                  EXAMINER BROOKS: Yes. I had a discussion  
23   yesterday about whether we would do an amended docket  
24   for today, and we decided legally it wouldn't accomplish  
25   anything and practicably it would add to her already

1 burdensome workload. So we went on the existing notice.

2 MR. HALL: Unless you think you can issue  
3 an order before the 17th.

4 EXAMINER McMILLAN: There are two  
5 possibilities: slim and none.

6 EXAMINER BROOKS: Of course, you can change  
7 the situation considerably from May 17th if somebody  
8 came in and protested.

9 Q. (BY EXAMINER McMILLAN) Okay. I do have one  
10 other thing. I'd like to, essentially, look at your  
11 Exhibit 3 and also -- sometimes we look at Exhibit 1.  
12 Exhibit 3 shows all the units. Exhibit 1 shows the well  
13 path. I'd like to see an exhibit that shows the well  
14 paths with the prospective units underlying by it.

15 A. Okay.

16 Q. My question is: Is the southeast quarter of  
17 the northwest quarter -- I've looked at one. Is that  
18 being developed?

19 A. It is not. This is the full well path. It's  
20 not just the completed interval in the well path, so the  
21 well path -- oh. Will it be developed under this plan?  
22 Yes. We believe it will be sufficiently developed with  
23 the five wells right now.

24 Q. And you're bringing it in -- you will -- you  
25 will have an engineer up here stating that?

1           A.     Yes.   Jay Paul McWilliams will be --

2                       EXAMINER McMILLAN:   Okay.   Because we've  
3   essentially run into this same situation in the potash,  
4   and then they brought -- in that particular case, they  
5   brought an engineer who said all the units will be  
6   developed with a planned development, and we just want  
7   to make sure that's on the record.

8                       And I want to also clearly say for the  
9   record that I think it's very -- it's a great idea to  
10   include the northeast quarter of the northeast quarter  
11   because without that, you run into the question of  
12   correlative rights.

13                      CROSS-EXAMINATION

14   BY EXAMINER DAWSON:

15           **Q.    Are there any depth severances within the**  
16   **proposed formation you're drilling?**

17           A.     Within the Gallup Formation, no.   It's not a  
18   uniform -- well, it's uniform ownership with Hilcorp in  
19   the northeast of Section 16.   But as communitized, it's  
20   uniform.

21           **Q.    And there are no lands within your development**  
22   **area that are unitized?**

23           A.     No.   Nothing's unitized.   There is the existing  
24   communitization agreement that will be terminated.

25           **Q.    Is that the Heros well?**

1           A.     Yes, the 1H.

2           Q.     I can ask him about that well.  You'll have  
3     a -- he'll testify about the wells and stuff, right?

4           A.     Right.

5                               RECROSS EXAMINATION

6     BY EXAMINER McMILLAN:

7           Q.     And then the communitization agreement is  
8     for -- is it for the entire length of the Gallup?

9           A.     Yes.  It's the entire Gallup Formation.

10          Q.     Okay.

11                       EXAMINER DAWSON:  That's all the questions  
12     I have.  Thank you.

13                               CROSS-EXAMINATION

14     BY EXAMINER BROOKS:

15          Q.     Did I understand you to say the communitization  
16     agreement will be terminated?

17          A.     The 160-acre communitization agreement only  
18     covering the --

19          Q.     Oh, okay.  You're going to do a new  
20     communitization then, right?

21          A.     Yes, covering the full 640.

22          Q.     And the land office has indicated that they  
23     will accept that communitization?

24          A.     Yes, as long as the full 640 is dedicated to  
25     each of the wells.



1           Q.    Yeah. I'm a little confused here, but my  
2    confusion has to do with the land office and not with  
3    you. So I will -- I won't ask you about it.

4                   I will ask you: Do you anticipate getting  
5    execution of a communitization agreement by all  
6    interests in this?

7           A.    Yes. We had hoped to have it by today. We are  
8    just waiting the on record -- 50 percent record title  
9    owner in the northeast-northeast of Section 16, which we  
10   anticipate having early next week.

11          Q.    But that's the reason why you're not asking for  
12   compulsory pooling in this case, right?

13          A.    Right. We'll be able to get voluntary pooling.

14          Q.    Okay. Thank you.

15                   EXAMINER McMILLAN: Okay. Go ahead.

16                   RECROSS EXAMINATION

17   BY EXAMINER DAWSON:

18          Q.    This looks like a state com agreement, correct,  
19   the one that's in the exhibits? It's a state fed com --

20          A.    Yes.

21          Q.    -- but it's on a state form?

22          A.    Yes.

23          Q.    Do you also have a com agreement? The Feds  
24   require a com agreement also, correct?

25          A.    Yes. But they will allow use of the state

1 form.

2 Q. Okay. That's the only question I had. Thank  
3 you.

4 EXAMINER McMILLAN: Thank you.

5 MR. RANKIN: No questions.

6 EXAMINER McMILLAN: Thank you.

7 MR. HALL: Call our next witness, Jay Paul  
8 McWilliams.

9 EXAMINER McMILLAN: Please proceed.

10 JAY PAUL McWILLIAMS,  
11 after having been previously sworn under oath, was  
12 questioned and testified as follows:

13 DIRECT EXAMINATION

14 BY MR. HALL:

15 Q. For the record, please state your name.

16 A. Jay Paul McWilliams.

17 Q. Mr. McWilliams, where do you live?

18 A. Flora Vista, New Mexico.

19 Q. By whom are you employed and in what capacity?

20 A. I'm employed by LOGOS Operating and LOGOS  
21 Resources II. And I'm the CEO, but I also do the  
22 overall engineering for the company. I do the bulk of  
23 the reservoir engineering work there.

24 Q. And you've not testified before the Division  
25 previously, have you?

1           A.    No, sir.

2           **Q.    Would you provide the Examiners with a summary**  
3 **of your educational background and work experience?**

4           A.    Yes, sir.  I have a Bachelor of Science in  
5 Chemical Engineering from New Mexico Tech and then an  
6 MBA from Duke University.  I broke out in the San Juan  
7 Basin working for Burlington Resources.  When I was 17  
8 years old, I actually worked there through all my  
9 summers and broke out there full time subsequent to  
10 finishing my bachelor's degree.  I worked there for  
11 four-and-a-half years as a drilling and production  
12 engineer, left shortly after the ConocoPhillips merger,  
13 and went to work for Resolute Resources in the Paradox  
14 Basin working as a reservoir and production engineer.  
15 And at that time, I completed my MBA from Duke.

16                       Subsequent to that, I went to work for Linn  
17 Energy in Houston working mergers and acquisitions,  
18 where I successfully landed approximately one billion  
19 dollars of successful transactions.  We were looking at  
20 acquisitions all over the country, having been  
21 originally from the San Juan Basin as a fourth  
22 generation, to work in the Basin.  My great, great uncle  
23 helped drill the first well there, a lot of ties.  I was  
24 seeing the technological revolution that's taking place  
25 all across the country, also being in tune with what was

1 going on in the San Juan and there not being --  
2 technology had not infiltrated that yet.

3 So in 2011, I received a call from a friend  
4 of the family that had approximately 30,000 acres in the  
5 oil window of the Basin and five oil wells that they  
6 wanted to get rid of. And so I took life savings and  
7 left the corporate world, purchased those assets in  
8 2011.

9 Shortly thereafter, a large private equity  
10 firm out of Boston that I had done several negotiated  
11 transactions with reached out and said, Hey, come on, we  
12 have some growth capital; let us know. We closed the  
13 initial round of funding in January of 2012 for  
14 \$50 million. That was right as the Gallup horizontal  
15 play was taking off, and so we really focused on  
16 acquiring the acreage those first few years. I built up  
17 the position to approximately 20,000 acres. We started  
18 developing vertically down there and then transitioned  
19 to horizontally drilling -- I think as a whole, as a  
20 company, we've drilled a total of 37 wells in the oil  
21 window of the San Juan Basin. I have to break out here.  
22 But I can get it into a little more on the development.  
23 But all of our development has been focused on San Juan.

24 We sold off a portion of our assets in  
25 2014. Since then we've been continuing to acquire in

1 the Basin. We currently control approximately 280,000  
2 acres and produce about 100 million a day on a net  
3 basis. And so I think we're certainly a top ten  
4 operator in the state from a production standpoint of  
5 natural gas, and we're one of the top five largest  
6 operators in the San Juan Basin. And all of the -- you  
7 know, with LOGOS, it's janitor to CEO, but the bulk of  
8 my time is spent on the engineering side.

9 And I guess secondarily, I've served on  
10 industry-related boards. I've served on the board of  
11 Iron Bridge Resources, a publicly traded company, that  
12 is developing the Mokme [phonetic] Shale, and so I'm  
13 head of the Reserves Committee there as we're working to  
14 develop those assets.

15 **Q. All right. You're familiar with the**  
16 **application that's been filed in this case?**

17 A. Yes, sir.

18 **Q. And you're familiar with the lands that are the**  
19 **subject of the application?**

20 A. Yes, sir, absolutely.

21 MR. HALL: At this point, Mr. Examiner,  
22 we'd offer Mr. McWilliams as a qualified expert  
23 petroleum engineer.

24 MR. RANKIN: No objection.

25 EXAMINER McMILLAN: So qualified.

1 THE WITNESS: Yes, sir.

2 Q. (BY MR. HALL) Let's look at the exhibits. Go  
3 to Exhibit 1 initially. Does this accurately depict  
4 LOGOS' plans for development of the 640-acre  
5 communitized area?

6 A. Yes, sir.

7 Q. All right. Let's talk about some of the  
8 underlying geology, if you would turn to Exhibit 7.  
9 Would you identify that, please?

10 A. Yes, sir. This is the type log for a well in  
11 the region, 23 8, Section 4, which is just north of  
12 where this proposed communitized area is at. We'll be  
13 focused -- we drilled this well back in 2013. You know,  
14 it kind of gives you the strat column from the Upper  
15 Mancos down through the Greenhorn. The zone of  
16 interest -- you kind see my arrow there drawn with the  
17 blue porosity bench. That is the Lower Gallup where  
18 most of the horizontal development in the Gallup oil  
19 window has taken place, just right below the El Vado C,  
20 kind of down into that upper portion of the Gallup.

21 Q. So the arrow indicates your landing target for  
22 your well?

23 A. Yes, sir.

24 Q. Let's turn to your next exhibit, Exhibit 7.  
25 Can you explain that to us?

1           A.    Yes, sir.  Similar to Exhibit 1, this showcases  
2   our planned development.  We'll be taking, you know, the  
3   north half of Section 9 -- I'm sorry -- the south half  
4   of Section 9, the north half of Section 16.  And the red  
5   line on the westside of that 640 acres is where we  
6   drilled the Heros 1H, and then the additional blue lines  
7   are where we plan to drill the upcoming horizontal  
8   wells.  The 2H and 3H are in the northern part of  
9   Section 9, and then -- and, Scott, I don't think this is  
10  the latest -- oh, I'm sorry.  This is -- and then the 4H  
11  is drilled down across there.

12                       We are -- Scott, this is -- my apologies.  
13  This does not reflect the additional well that we'll be  
14  drilling in there.  It is in Section -- referenced in  
15  Exhibit 1.

16           **Q.    Okay.  Exhibit 7 does reflect your cross**  
17 **section?**

18           A.    Oh, yes, sir.  Yeah.  Yeah.  It is the cross --  
19  my apologies.  That is the cross section going from  
20  A prime to A, which we'll look at the cross section.

21           **Q.    Let's look at that now.**

22           A.    Yes, sir.  So the cross section will be running  
23  from north to the south and looking at the vertical logs  
24  and will be showcasing the continuity of the reservoir  
25  through this region.

1           Q.    All right.  Based on your interpretation and  
2   based on LOGOS' experience drilling Gallup wells in the  
3   area, do you expect the same geologic stratum will be  
4   developed throughout this 640-acre communitized area by  
5   your four additional wells?

6           A.    Yes, sir.

7           Q.    And that same stratum is present in the 1H  
8   well?

9           A.    Yes, sir.  Yeah.  In referencing Exhibit 8, it  
10   showcases logs running through that cross section from  
11   the south to the north, and you can see in the lower  
12   portion, the porosity bench there is very, very similar  
13   throughout the region.  And we've drilled -- within a  
14   two-mile radius of this well, we've drilled four  
15   vertical wells and four horizontal wells, so we're very  
16   in tune with the reservoir there.  And just recently,  
17   within the last two months, we drilled two horizontal  
18   wells in Section 15 -- the south half of Section 15 on  
19   the -- so just to --

20          Q.    You're looking back at Exhibit 7?

21          A.    Yeah, back at Exhibit 7.  If you can see the  
22   yellow in Section 15, we just drilled the two horizontal  
23   wells in the south half of that section, put those on  
24   about two weeks ago.  They're both producing  
25   approximately 800 barrels a day each and so very, very



1 good, strong wells. These are great wells. This is  
2 kind of the core of the core of the Gallup oil window.

3 Q. All right. And so you're confident that the  
4 Gallup reservoir is continuous throughout the 640-acre  
5 project area?

6 A. Yes, sir.

7 Q. And, of course, in your evaluation of the  
8 geology for the area, did you see any faults, pinch-outs  
9 or discontinuities that would make drilling horizontal  
10 wells problematic?

11 A. No, sir.

12 Q. What is the prevailing orientation of the  
13 tectonic stress in this part of the Basin?

14 A. It's 45 degrees northwesterly.

15 Q. And how does this affect well completions in  
16 resulting EURs?

17 A. Yeah. So ultimately the optimal way to orient  
18 wells is in that northeast -- westerly direction -- I'm  
19 sorry -- 45 degrees northeasterly. And so drilling  
20 perpendicular to that is -- is -- is optimal. And, you  
21 know, there is a 25 to 50 percent, from a geo --  
22 geometric standpoint reservoir contact, we -- two of the  
23 wells, the 4H and 5H, will be able to take advantage of  
24 that. It is challenging when you're dealing with, you  
25 know, 640 acres square getting all of the wells oriented

1 in that manner without leaving some resources stranded.

2 We do believe -- one of the things we've  
3 done -- and I'll speak to that in a moment -- on our --  
4 we've been advancing our completion design, and so we're  
5 being significantly more aggressive on our -- our fracs,  
6 bringing smaller -- smaller stages, tighter cluster  
7 spacing. And so we believe we'll be able to overcome  
8 some of the inefficiencies of drilling on an east-west,  
9 north-south basis with that design and the results  
10 support that.

11 The Heros 1H is one of the best wells on a  
12 per lateral foot that's been drilled in the play. We  
13 drilled that last year in May and put it on in August.

14 **Q. If we look again at Exhibit 7, can the**  
15 **prevailing development pattern in the broader area be**  
16 **seen there?**

17 A. Yeah. So, you know, you have Section 8 and  
18 Section 17 drilled in that northwesterly direction. And  
19 as you can see, others have just been drilled from the  
20 land perspective predominantly east-west or west-east.  
21 And we did drill the Heros 1H north to south.

22 **Q. And so your plans for the additional Heros**  
23 **wells are in alignment with the existing --**

24 A. Yes, sir, for the 4H and 5H.

25 **Q. Mr. McWilliams, in your opinion, can the Gallup**

1 reserves underlying the project area be efficiently and  
2 economically recovered from this 640-acre project area  
3 if configured and developed as proposed?

4 A. Yes, sir. Yes, sir.

5 Q. Will the five wells recover those reserves  
6 without causing waste or impairing correlative rights?

7 A. Yes, sir.

8 Q. Is the plan that all five wells will utilize  
9 the same production facilities?

10 A. Yes, sir.

11 And I think we're -- I think we might be  
12 the first pad to drill -- with this configuration, to  
13 develop a 640 off of one pad in the region.

14 Q. All right. And the 1H well, would you discuss  
15 what its producing rates are currently?

16 A. It's currently producing 250 barrels a day  
17 after being on line for approximately seven-and-a-half  
18 months. It peaked at about 1,100 barrels a day. We  
19 were constrained on facilities for the first few months.  
20 It's produced a total of 115 MBOE in the last  
21 seven-and-a-half months. So it's a great well.

22 Q. All right. And is LOGOS' position to start the  
23 2H, 3H, 4H and 5H wells immediately?

24 A. Yes, sir. Yeah. We set surface casing on the  
25 2H and 3H, as those being federal leasehold wells that

1 we could drill whether -- whether the communitized area  
2 is approved or not. And then -- so we'll be moving a  
3 drilling rig -- a big drilling rig in two weeks --  
4 within the next two weeks to drill those two wells. If  
5 this is approved, we'll drill continuously, just skid  
6 the rig to drill the other two wells.

7 **Q. If you remain on the current schedule, when do**  
8 **you perceive being able to complete these wells?**

9 A. We have a frac date scheduled for late July.  
10 And that's part of -- we're moving a rig to get it  
11 drilled, but we won't be getting it done all at once.

12 **Q. If the nonstandard project area communitization**  
13 **agreements for the unit are not approved, how would**  
14 **LOGOS be developing this acreage?**

15 A. So we'll be developing Section 9 with a federal  
16 leasehold. We'll drill those two wells either way in  
17 the next couple of weeks. And, you know, certainly the  
18 north half of 16, how we would approach that, we'll  
19 certainly have to move the rig off, and from an economic  
20 standpoint, it would be very inefficient, as well as  
21 from a technical perspective developing the reserves.

22 **Q. So five wells is preferable to three?**

23 A. Yes, sir, absolutely.

24 **Q. Do you have an estimate of the incremental**  
25 **reserves you would recover with five wells above the**

1     **three?**

2           A.     Yes, sir, approximately 1 million MBOE.

3           **Q.     Okay.  If for some reason the planned**  
4     **development schedule for drilling and developing**  
5     **Sections 16 and 19 is disrupted, what incremental costs**  
6     **will be added to the project?**

7           A.     For the project, if we were to have to come  
8     back -- have to come back to develop the north half of  
9     Section 16 in some manner or another, it would be,  
10    between rig moves, frac mobilization, et cetera,  
11    approximately \$200,000 of incremental costs.

12          **Q.     All right.  So the application is denied, what**  
13    **would be the plans for the 4H and 5H wells?**

14          A.     I think somewhat uncertain.  Obviously, we  
15    wouldn't be drilling them this summer and -- most likely  
16    in 2018.

17          **Q.     Is it the plan to simultaneously fracture,**  
18    **complete the remaining four wells?**

19          A.     Yes, sir.  Yeah.  So we'll move the frac crew  
20    on.  We'll knock out -- do a zipper frac on two of them  
21    and then zipper frac on the other two.

22          **Q.     If you lose the ability to do that, is your**  
23    **production adversely affected?**

24          A.     Yes, sir, we believe so.  You know, we believe  
25    in industry best standards, getting everything at once

1     versus -- you know, if you produce the wells, drain them  
2     for a bit, it creates an inefficient frac.

3           **Q.     Would your correlative rights be impaired as a**  
4     **result?**

5           A.     Yes, sir. I believe so.

6           **Q.     If you're not able to drill all five wells, can**  
7     **you estimate the loss of revenues and royalties and**  
8     **severance taxes?**

9           A.     Yes, sir. You know what, based on a million  
10    BOE, we look at severance tax, royalties, somewhere --  
11    in the life of the well, it's approximately \$10 million,  
12    and then from a total revenue standpoint, approximately  
13    \$50 million for the life of the wells.

14          **Q.     In your opinion, Mr. McWilliams, will granting**  
15    **LOGOS' application be in the interest of conservation,**  
16    **prevent waste and result in the protection of**  
17    **correlative rights?**

18          A.     Yes, sir. Yes, sir.

19          **Q.     Were Exhibits 6 through 9 prepared by you or at**  
20    **your direction?**

21          A.     Yes, sir.

22                   MR. HALL: At this point, Mr. Examiner, we  
23    move the admission of Exhibits 6 through 9, and that  
24    concludes our direct examination.

25                   MR. RANKIN: No objection.

1 EXAMINER McMILLAN: Exhibits 6 through 9  
2 may now be accepted as part of the record.

3 (LOGOS Operating, LLC Exhibit Numbers 6  
4 through 9 are offered and admitted into  
5 evidence.)

6 EXAMINER McMILLAN: Let me ask the LOGOS  
7 attorney -- I'm sorry -- I meant Hilcorp.

8 Is Hilcorp in support of this?

9 MR. RANKIN: We are, and I have a witness  
10 following Mr. --

11 EXAMINER McMILLAN: Okay. I've got a weird  
12 favor to ask of you. Could the LOGOS engineer crudely  
13 draw on this where the 5H is? Do you have a problem  
14 with that?

15 MR. RANKIN: We have no problem with that.

16 THE WITNESS: Absolutely.

17 EXAMINER McMILLAN: Do it on my copy  
18 because it's not going to be scanned.

19 THE WITNESS: Yeah. Apologies. We put --

20 EXAMINER McMILLAN: I just want to see  
21 where the 5H is. But I want to see it on that map of  
22 the overall developments.

23 THE WITNESS: Yes, sir. Yeah.

24 EXAMINER McMILLAN: But I want to see it  
25 for the testimony so I can examine it.

1 MR. HALL: Sure.

2 THE WITNESS: Yes, sir. We had initially  
3 contemplated initially three wells when we put together  
4 the cross section.

5 EXAMINER McMILLAN: That's fine.

6 CROSS-EXAMINATION

7 BY EXAMINER McMILLAN:

8 Q. Let it be stated for the record, the 5H will  
9 penetrate the northeast quarter of the northeast  
10 quarter.

11 Let me ask: Okay. First thing, you're  
12 obviously going to update Exhibit 7.

13 A. Yes, sir. We will get that updated.

14 Q. Now, my question relates to Section 8, the  
15 diagonal wells.

16 A. Yes, sir.

17 Q. How much better performing are those wells  
18 versus the north half-north half, the wells in the north  
19 half of Section 15, in terms of reserves?

20 A. In terms of reserves, the wells in Section 15,  
21 additionally the wells in Section 9 are -- in the north  
22 half of Section 9 are -- they are not performing. I  
23 would say approximately 50 percent less on a  
24 per-lateral-foot basis.

25 However, these wells were drilled and



1 completed in 2013 by WPX. They were drilled transverse  
2 through the reservoir in 15 and 9. And so, you know,  
3 going back to the type log, rather than staying in kind  
4 of the sweet spot of the reservoir, they were -- they  
5 were up front, drilling up through kind of from the base  
6 of the Gallup up through the top of the C. Industry  
7 best practices have migrated to, you know, landing in  
8 that sweet spot.

9                   Additionally, they were completed with  
10 somewhere -- approximately 750 proppant intensity -- 750  
11 to 1,000 proppant pounds per foot, where the wells in  
12 Section 8 were -- migrated to a proppant intensity of  
13 1,000 proppant pounds per foot. We -- we are just --  
14 just for informational purposes, we used 1,250 proppant  
15 pounds per foot in Section 16 with the Heros well being  
16 on par with the wells in Sections 8 and 17. And we used  
17 1,500 proppant pounds per foot over in Section 15 where  
18 we just drilled, and we plan on the same completion  
19 design here in the upcoming wells.

20           **Q.    So how much more reserves are you getting using**  
21 **the diagonals versus straight north-south, east-west**  
22 **using -- assuming the same completion techniques?**

23           A.    The same completion techniques, from a -- from  
24 a theoretical basis, you would get somewhere between 25  
25 to 50 percent.

1 Q. So you're getting 25 to 50 percent --

2 A. Yes, sir.

3 Q. -- increase reserves using diagonal wells? Is  
4 that a --

5 A. Yes, sir. I think that's a fair -- fair  
6 statement theoretically. And it's really kind of just a  
7 geometry thing because you're contacting more of the  
8 reservoir.

9 Q. You hit more of the fracs, natural fractures?

10 A. Yes, sir.

11 Q. Okay. So let me ask you -- this is a geologic  
12 question. Which one is your type log? What exhibit is  
13 that?

14 A. Exhibit 6.

15 Q. Okay. This is purely for my knowledge. If you  
16 go to that really good BP well in the gas section --

17 A. Yes, sir.

18 Q. -- where is that?

19 A. That is going to be in the El Vado C, which --  
20 which -- it is the similar zone that we're landed in.  
21 However, this being a sandstone and that being a  
22 relatively silty shale.

23 Q. So the BP well is essentially landed in the  
24 same --

25 A. Yes, sir.

1           Q.    -- same interval --

2           A.    Yes, sir.

3           Q.    -- but the BP well shale?

4           A.    Yes, sir.  Yes, sir.

5           Q.    And the Heros is essentially a sand?

6           A.    Yes, sir.

7                     And as an FYI, we acquired WPX -- their gas  
8 window assets, and so we own the acreage right adjacent  
9 to that.

10          Q.    Yeah.  That's why I asked you that question.

11          A.    Yes, sir.  Yes, sir.  And we have plans to  
12 drill there when gas prices are at a little bit better  
13 level in the San Juan Basin.  Sure.

14          Q.    Okay.  I didn't know that.  I always  
15 thought that -- my lack of knowledge of the San Juan  
16 Basin, to be honest with you, geology is blatantly  
17 obvious.  I thought that the BP well was actually higher  
18 than the oil zone.  So it's really kind of crudely the  
19 same in terms of time?

20          A.    Yeah.  And when -- and that's a fair statement.  
21 And when WPX did -- and we own the WPX horizontal wells  
22 up there, and they kind of pioneered it.

23          Q.    Yeah.

24          A.    They did a bit of a wine rack, where they were  
25 in the C and kind of in the A, B.  And so they

1 wine-racked here, here (indicating). You know, BP  
2 landed in that C, and I think our future drilling plans  
3 there would be to land it just in that one zone. So  
4 yes, sir.

5 **Q. Okay. So going back, essentially, to your type**  
6 **log, if you -- is the Juana Lopez Lower Carlile ever**  
7 **going to be prospective?**

8 A. A lot -- so when we were drilling vertically --  
9 you can see in this well that we drilled, in 2013 -- you  
10 can see the perfs there in pink.

11 **Q. Yes.**

12 A. Okay. So we -- we did frac that zone, and we  
13 fracked that in most of the vertical wells that we  
14 drilled in 2012 through 2014. There's -- if you -- if  
15 you look at a core -- the TOC is the best there, and  
16 it's the source rock for a lot of this. A lot of the  
17 Gallup, it has a lot of clay in it, and so we fracked  
18 it. It fracked at really high pressures, you know,  
19 5- to 6,000 pounds, and it's challenging to get those  
20 fracs off. So it's a good question.

21 I have to think industry will ultimately  
22 figure it out. But it is -- it is a tough one to, I  
23 think, get your frac off and to -- and the clay content  
24 concerns me a bit. But I think the pressure is really  
25 good there, which one of the challenges in why we have

1 to pump nitrogen, the energized fractures, because we're  
2 underpressure. So to get our frac load back, we have to  
3 pump nitrogen. There, I think it certainly would be a  
4 slickwater job, and that's what we did when we were  
5 fracking that interval. So --

6 Q. Okay. Will an energized frac work in an  
7 underpressured reservoir? I'm just curious.

8 A. Yes, sir. Yes, sir. And that's -- that's what  
9 nearly all of the Gallup oil window horizontal wells  
10 have been, is the energized frac.

11 Q. I thought they were using nitrogen.

12 A. Yeah. Energized being nitrogen.

13 Q. Okay. They're not using the slickwater fracs  
14 like you see in the southeast?

15 A. No, sir. No, sir.

16 Q. Could you use the slickwater fracs -- and I'm  
17 just curious -- in the Juana Lopez and Lower Carlile?

18 A. Yes, sir. That would be -- and when we were  
19 fracking vertically, when we fracked that zone in this  
20 particular well, we used slickwater. Yes, sir. The  
21 only interval that we did with nitrogen is up there in  
22 that Gallup interval because it is so low pressured.  
23 So yes, sir.

24 Q. I don't have any questions.

25 EXAMINER McMILLAN: Go ahead, Scott.

1 CROSS-EXAMINATION

2 BY EXAMINER DAWSON:

3 Q. Mr. McWilliams, in your development of Section  
4 16, do you feel like the plan -- the development plan  
5 you're proposing will adequately drain the east half of  
6 the northwest quarter of Section 16?

7 A. Yes, sir. Yes, sir. And there's that -- the  
8 -- we'll be -- yes, sir.

9 MR. HALL: Are you looking at Exhibit 1?

10 EXAMINER DAWSON: I am looking at Exhibit  
11 Number 7 with the planned well pads.

12 THE WITNESS: Yeah. And that's the same  
13 well pads we'll be taking.

14 Q. (BY EXAMINER DAWSON) Or Exhibit 1 also. I'm  
15 just asking about this northwest quarter of Section 16  
16 and asking again if it'll be adequately drained.

17 A. Yes, sir. Yeah. And there is also -- there's  
18 a vertical well that had been drilled there  
19 historically, and that's why we're kind of steering --  
20 we're steering just to the north of that vertical well  
21 that was historically drilled there.

22 And when we drilled the type well, the  
23 LOGOS 5, the bit walked -- you know, it wants to drill  
24 perpendicular to the reservoir, and it walked  
25 approximately 150 feet to the southwest of this surface

1 location. And so that's why we're drilling just to the  
2 north. We're looking at 100 feet north of this wellbore  
3 just because -- it was drilled in the early '80s, and as  
4 you guys know, the overall orientation of the well is  
5 challenging, to know which way they drilled and how far  
6 they got off course. That well was plugged and  
7 abandoned -- or is plugged and abandoned.

8 **Q. It's been plugged and abandoned?**

9 A. Yes, sir.

10 **Q. You don't foresee any wellbore communications**  
11 **issues with that existing -- or plugged well in your**  
12 **proposed path of your horizontal?**

13 A. No, sir. We don't believe so. We certainly  
14 hope not. We are -- I mean, to be quite candid, we are  
15 contemplating not putting a frac stage right where that  
16 well is, you know, within 100 feet of that wellbore.  
17 We're contemplating skipping a frac stage there. And  
18 from both a wellbore protection standpoint and then also  
19 with that well having produced enough and drained a  
20 little bit of the reservoir, it could be a -- stage or  
21 unnecessary stage.

22 **Q. Okay. In looking at your exhibits, Number 7**  
23 **and comparing it to Exhibit Number 8 and looking at your**  
24 **cross section, in looking at your cross section, your**  
25 **prospect is pretty much between the second and third**

1 well in this -- on the cross section? Is that kind of  
2 where you put the Section 9? I'm saying the --

3 A. Yes, sir.

4 Q. -- second and third well going right in there.

5 A. Yes, sir.

6 Q. Looks like some of those -- that well -- the  
7 third well over --

8 A. Yes, sir.

9 Q. -- which is in Section 8?

10 A. Yes, sir. And we drilled that well in 2013.

11 Q. How much has that well produced?

12 A. Very -- very good question. On a vertical --  
13 I'd be lying if I gave you an exact amount of cum, but I  
14 will tell you the peak month there was over 100 barrels  
15 a day from that wellbore, vertical well, when we drilled  
16 it back in 2013. So -- this is a great reservoir. It  
17 can be developed economically from a vertical  
18 standpoint, but it's inferior economics to the  
19 horizontal.

20 Q. Is that well still producing?

21 A. No, sir, it is not.

22 Q. Is it plugged?

23 A. Periodically it is producing. After -- I think  
24 WPX, after they -- they purchased that from us.

25 They've -- most of the verticals, they've shut down for



1     their horizontals -- to produce their horizontals. As  
2     you can see, they have horizontals running -- a  
3     horizontal running right by that wellbore.

4           Q.     So your target -- in looking at the third well  
5     on the cross section on Exhibit Number 8 --

6           A.     Yes, sir.

7           Q.     -- your target's going to be the middle  
8     perforated on that well, right?

9           A.     Yes, sir.

10          Q.     And it looks pretty thick right there --

11          A.     Yes, sir.

12          Q.     -- in that area?

13          A.     Yes, sir. It's very thick.

14          Q.     That's all the questions I have. Thank you.

15                   CROSS-EXAMINATION

16     BY EXAMINER BROOKS:

17           Q.     There's something I don't understand in this  
18     whole proceeding. If you have the -- or expect to  
19     have the whole area consolidated by the communitization  
20     agreement, why do you need to be declared to be a  
21     nonstandard spacing unit?

22           A.     I would defer to Scott on that.

23                   EXAMINER BROOKS: Okay. I've heard a lot  
24     of talk about this subject, and I've never really  
25     understood, because if it's going to be voluntarily

1     pooled, then it doesn't have to be compulsory pooled.

2     And then if it doesn't have to be compulsory pooled, I

3     don't understand why -- why people want it to be

4     declared a nonstandard spacing unit.

5                     MR. HALL:   Well, we're following existing

6     precedent in the San Juan Basin and doing so because

7     these are 40-acre spacing units being combined.

8                     EXAMINER BROOKS:   Yes.  Is it a lease --

9     lease retention?  But if a unit is put -- if a lease is

10    put in a communitization agreement, that would hold the

11    lease whether there is a well drilled on that part of

12    the lease or not.

13                    MR. HALL:   That's not an issue here.

14                    EXAMINER BROOKS:   What I don't understand

15    is what is the issue here.

16                    MR. HALL:   We're following established

17    protocol for the approval of nonstandard project areas

18    and/or spacing units.

19                    EXAMINER BROOKS:   Yeah.

20                    MR. HALL:   And I'm thinking of the form --

21    I can cite an order.

22                    EXAMINER BROOKS:   I wrote an order on one

23    of these recently.

24                    MR. HALL:   One that I think probably

25    influences is this Order R-13817.  It's the WPX order

1 for their project area under the communitization  
2 agreement. They also sought downhole commingling.  
3 That's not an issue here.

4 EXAMINER BROOKS: R-13 --

5 MR. HALL: 817.

6 EXAMINER BROOKS: -- 817.

7 EXAMINER McMILLAN: Is that the Chaco?

8 EXAMINER BROOKS: No. It couldn't be the  
9 Chaco because the Chaco is unique.

10 EXAMINER McMILLAN: I think I sat on that  
11 case.

12 EXAMINER BROOKS: Thank you.

13 MR. HALL: Yeah.

14 EXAMINER BROOKS: That doesn't answer my  
15 question, but maybe somebody can.

16 MR. HALL: Well, we are following  
17 established Division protocol for proceeding --

18 EXAMINER BROOKS: Well, I don't think it  
19 was established by me, but I could be wrong.

20 EXAMINER McMILLAN: I think you may have  
21 been in -- when you were in exile.

22 EXAMINER BROOKS: Oh, I was going to say I  
23 may have pled temporary insanity.

24 (Laughter.)

25 EXAMINER McMILLAN: We won't go there.

1 MR. HALL: The Durango days.

2 EXAMINER BROOKS: Well, that might be --  
3 that may have been temporary insanity anyway.

4 RECROSS EXAMINATION

5 BY EXAMINER McMILLAN:

6 Q. I wasn't clear on that point. You said -- what  
7 vertical well drifted 150 feet?

8 A. Oh, the well in Section 16.

9 Q. Is it the one that's showing active?

10 A. It's inactive. See how we're kind of  
11 steering -- we have the Heros that comes down like this  
12 and then we're looking to drill that 4H? We're drilling  
13 right around -- and really Exhibit 1 may be the best.

14 EXAMINER DAWSON: You're talking about the  
15 well in the northeast quarter of the northwest quarter  
16 of Section 16, correct?

17 THE WITNESS: Yes, sir.

18 Q. (BY EXAMINER McMILLAN) And did that plugged  
19 well make any -- did that plugged well make anything?

20 A. Yes, sir. It made 16,000 barrels. And my  
21 apologies. The well that walked -- we do not have what  
22 we believe are trustworthy deviation surveys from that  
23 specific well, but the well that we drilled -- we  
24 drilled -- the type well that we're showing is right up  
25 here, I believe, in Section 4. We drilled that, and we

1 have a gyro survey on that. And it walked 150 feet. So  
2 we're having to assume that this one followed a  
3 similar -- because the structure is similar, that, you  
4 know, the drill bit walked in the same manner, but we  
5 really don't know. That's why we're steering 100 foot  
6 to the north of that well, you know, again, because the  
7 drill bit will want to be perpendicular to the  
8 reservoir.

9 Q. Oh, okay. So the 150 feet is really based on  
10 experience?

11 A. Yes, sir. It's based on an offset well that we  
12 have good data on.

13 Q. Okay. And just for clarity purposes, you think  
14 the development plan will develop all the units?

15 A. Yes, sir.

16 EXAMINER McMILLAN: Any questions?

17 EXAMINER DAWSON: I think that's all the  
18 questions I have. Thanks.

19 THE WITNESS: And to sort of answer your --  
20 I just realized on our cross section. The well you  
21 asked about that we drilled in the middle of the -- the  
22 cross section, it looks like it cumed approximately  
23 29,000 barrels.

24

25



1                   You know, one of the challenging things  
2    about the Gallup play, you know, in comparison to like  
3    the southeast, you have 20 different companies  
4    experimenting with different completion designs. Not a  
5    lot of active operators here. So obviously we want to  
6    be on the cutting edge but not the bleeding edge. And  
7    so, you know, we're kind of slowly trying to step up  
8    that completion. You know, it's a couple hundred grand  
9    to go that extra 250 proppant pounds per foot. So --

10           **Q.    Is cutting and bleeding edge a visionary term?**

11           A.    (Laughter.)

12                   MR. HALL:  It's economic, I think.

13           **Q.    (BY EXAMINER DAWSON) So you don't assume that**  
14 **implementing a 1,500-pound-per-foot frac on any of these**  
15 **proposed wells will increase reserves versus a 1,250**  
16 **pound?**

17           A.    We believe it will. Yes, sir. We believe it  
18 will. Absolutely.

19                   And based on the Heros results, as I  
20 mentioned -- looking at the Heros -- the Heros well in  
21 comparison to these direct offsets, it's kind of a 2X on  
22 our first seven-month cum, and so significantly better  
23 results by -- and, of course, these two were drilled in  
24 a transverse manner, but they were completed with small  
25 fracs. But we do believe that does affect reserves.

1 And we're able to contact more reservoir with tighter  
2 stage spacing and then just put in more sand into the  
3 reservoir. Yes, sir.

4 **Q. Thank you.**

5 EXAMINER McMILLAN: Thank you. You did an  
6 excellent presentation. I want that on the record.

7 Let's take a 15-minute break.

8 MR. RANKIN: That's fine. We probably will  
9 talk two minutes. It'll be quick.

10 EXAMINER McMILLAN: If that's all it is,  
11 sounds good. We will not take a break, and we'll  
12 proceed with --

13 MR. RANKIN: Mr. Examiner, one witness,  
14 Mr. Chuck Creekmore.

15 CHARLES "CHUCK" E. CREEKMORE,  
16 after having been previously sworn under oath, was  
17 questioned and testified as follows:

18 DIRECT EXAMINATION

19 BY MR. RANKIN:

20 **Q. Mr. Creekmore, will you please state your full**  
21 **name for the record?**

22 A. Charles Creekmore.

23 **Q. By whom are you employed?**

24 A. Hilcorp Energy Company.

25 **Q. In what capacity?**



1           A.    I'm a landman with them.

2           Q.    And, Mr. Creekmore, are you familiar with the  
3 original application that was filed by LOGOS in this  
4 case?

5           A.    Yes, I am.

6           Q.    And has Hilcorp had discussions with LOGOS as a  
7 result of its concerns with the original application?

8           A.    Yes, we did.

9           Q.    And what were the results of those  
10 communications and discussions with LOGOS?

11          A.    We were concerned about our acreage. It was  
12 state lease, and it's located in the northeast-northeast  
13 of Township 23 North, Range 8 West, and we were  
14 concerned it was going to be isolated, and because of  
15 that isolation, it would be undeveloped.

16          Q.    And did you come to some resolution with LOGOS?  
17 Obviously, you guys were able to come to some agreement  
18 with the development of that?

19          A.    Yes. Hilcorp was very appreciative of LOGOS  
20 working with us and revising the original plan to  
21 include our 40-acre tract and change the 600-acre com  
22 agreement to a 640-acre com agreement.

23          Q.    Okay. As a result of that change, do you  
24 now -- does Hilcorp now support the application that's  
25 been amended?

1           A.    Yes, we do.

2           Q.    You believe that's in the best interest of the  
3   State and all the affected parties within the area of  
4   the development?

5           A.    That is correct.

6           Q.    And you have no concerns about the development  
7   of the acreage with the full communitized area?

8           A.    (Indicating.)

9           Q.    You have no other concerns about the full  
10   development of the acreage in the proposed amended  
11   communitized area?

12          A.    No, I don't.

13                   MR. RANKIN:  With that, no further  
14   questions of this witness.

15                   EXAMINER McMILLAN:  He is an expert  
16   witness?

17                   MR. RANKIN:  I'm happy to have him --

18                   EXAMINER McMILLAN:  Yeah.  Let's have him  
19   qualified in case -- well, just say for the record he's  
20   an expert witness based on previous testimony and  
21   numerous cases.

22                   MR. RANKIN:  In fact, I think this is a  
23   continuation of yesterday's hearing; is it not?

24                   EXAMINER McMILLAN:  Yeah.  Okay.  That's  
25   fine.

1 CROSS-EXAMINATION

2 BY EXAMINER McMILLAN:

3 Q. In case there is any question, you believe this  
4 is a prevention of waste and protection of correlative  
5 rights?

6 A. I do.

7 Q. Okay. That's fine.

8 CROSS-EXAMINATION

9 BY EXAMINER DAWSON:

10 Q. One question, Mr. Creekmore. You're talking  
11 about the northeast-northeast of Section 16, correct?

12 A. Correct.

13 Q. And when you do commit to be included in the  
14 communitization agreement, that will dilute your acreage  
15 somewhat of what it is presently? I mean if you drilled  
16 it on your own?

17 A. Well, we feel like this is a much better  
18 program, having it developed on a horizontal basis.

19 Q. That was my question. I was just -- I know  
20 your interest will be diluted a little bit, but you'll  
21 be included in the communitized area. But with that  
22 dilution, the increase in reserves that you will gain  
23 offsets -- that makes Hilcorp happy, correct?

24 A. That is correct.

25 Q. Okay. That's my question. Thank you.

1 MR. HALL: I have no questions.

2 EXAMINER McMILLAN: Okay.

3 MR. RANKIN: No further questions,

4 Mr. Examiner. Pass the case to Mr. Hall.

5 MR. HALL: I think that concludes our case.

6 We'll provide you with supplemental Exhibits 3 and 7

7 showing the well paths.

8 EXAMINER McMILLAN: Yes.

9 MR. HALL: And I understand that the case

10 will be continued to May 17th and called under the

11 amended advertisement at that time.

12 EXAMINER McMILLAN: Yes. And also go ahead

13 and update --

14 EXAMINER DAWSON: Exhibit 9?

15 EXAMINER McMILLAN: -- Exhibit 9.

16 MR. HALL: What do we need on 9?

17 EXAMINER DAWSON: It didn't have all the

18 wellbores on it, or does it?

19 EXAMINER McMILLAN: I'll tell you what, if

20 you could redo Exhibit 9, just go ahead -- actually, I

21 don't want to see the wells on there because to me it's

22 too much information.

23 THE WITNESS: You just want the structure.

24 EXAMINER McMILLAN: So Exhibit 9 without

25 the wells.

1                   EXAMINER DAWSON: We have the wells on  
2 Exhibits 1 and 7 anyway.

3                   EXAMINER McMILLAN: Yeah. So let's do  
4 that.

5                   With that, Case Number 16105 shall be  
6 continued to May 17th.

7                   And guess what? The hearing is over.

8                   (Case Number 16105 concludes, 9:41 a.m.)

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1 STATE OF NEW MEXICO  
2 COUNTY OF BERNALILLO

3

4 CERTIFICATE OF COURT REPORTER

5 I, MARY C. HANKINS, Certified Court  
6 Reporter, New Mexico Certified Court Reporter No. 20,  
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  
10 a true and correct transcript of those proceedings that  
11 were reduced to printed form by me to the best of my  
12 ability.

13 I FURTHER CERTIFY that the Reporter's  
14 Record of the proceedings truly and accurately reflects  
15 the exhibits, if any, offered by the respective parties.

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

20 DATED THIS 9th day of June 2018.

21

22

23 MARY C. HANKINS, CCR, RPR  
24 Certified Court Reporter  
New Mexico CCR No. 20  
Date of CCR Expiration: 12/31/2018  
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25