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 HILCORP ENERGY COMPANY FOR AN EXCEPTION TO THE WELL DENSITY REQUIREMENTS OF THE SPECIAL RULES AND REGULATIONS OF THE BLANCO-MESAVERDE GAS POOL, RIO ARRIBA COUNTY, NEW MEXICO.	CASE NOs. 15934 and 15936, 15937, 15938, 15939, 15940, 15941, 15942, 15943, 15944, 15945

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

January 11, 2018

Santa Fe, New Mexico

BEFORE: MICHAEL McMILLAN, CHIEF EXAMINER
WILLIAM V. JONES, TECHNICAL EXAMINER
DAVID K. BROOKS, LEGAL EXAMINER
GABRIEL WADE, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, Michael McMillan, Chief Examiner, William V. Jones, Technical Examiner, and David K. Brooks and Gabriel Wade, Legal Examiners, on Thursday, January 11, 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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EXHIBITS OFFERED AND ADMITTED

(2:15 p.m.)

EXAMINER McMILLAN: I'd like to call this hearing back to order.

The question I have is which cases are going to be consolidated?

MR. RANKIN: Mr. Examiner, we are requesting for hearing purposes that we consolidate Case Numbers 15934 and 15936 through 15945, 11 cases altogether.

EXAMINER McMILLAN: Okay. Case Number 15934, application of Hilcorp Energy Company for an exception to the well density requirements of the special rules and regulations of the Blanco-Mesaverde Gas Pool, Rio Arriba County, New Mexico. That case shall be combined with Case Number 15936, application of Hilcorp Energy Company for an exception to the well density requirements of the special rules and regulations of the Blanco-Mesaverde Gas Pool, Rio Arriba County, New Mexico;

Further combined with Case Number 15937, application of Hilcorp Energy Company for an exception to the well density requirements of the special rules and regulations of the Blanco-Mesaverde Gas Pool, Rio Arriba County, New Mexico, combined with Case Number 15938, application of Hilcorp Energy Company for an

exception to the well density requirements of the special rules and regulations of the Blanco-Mesaverde Gas Pool, Rio Arriba County, New Mexico, combined with Case Number 15939, application of Hilcorp Energy Company for an exception to the well density requirements of the special rules and regulations of the Blanco-Mesaverde Gas Pool, Rio Arriba County, New Mexico;

Combined Case Number 15940, application of Hilcorp Energy Company for an exception to the well density requirements of the special rules and regulations of the Blanco-Mesaverde Gas Pool, and Case Numbers --

EXAMINER JONES: They're all the same.

EXAMINER McMILLAN: -- 15941, 15942, 15943 and 15944 and 45, all combined together, and all have the same name combined.

And let's move on.

MR. RANKIN: Mr. Examiner, I'm entering my appearance. Adam Rankin, on behalf of Holland & Hart with the Santa Fe office, on behalf of Hilcorp Energy Company. With me today second chair is Mr. Mike Feldewert. And I have five witnesses.

But, first, if I might make some brief introductory remarks just to set the context for the presentation, I think it might help and also to explain

our exhibit packet that you have before you today.

Mr. Examiner, we will have five witnesses today reviewing exhibits for each of these 11 cases. The purpose of the applications here is that Hilcorp identified a number of Dakota wells that are ideally located for completions uphole in the Mesaverde Formation in proration units where their analysis has shown that the existing well density and spacing pattern permitted by the special pool rules are not sufficiently accommodating the spacing units in the Mesaverde.

And so Hilcorp is, therefore, asking for exceptions to the special pool rules to permit them to recomplete Dakota wells in the Mesaverde Formation so they may have five wells in a spacing unit and three wells in a quarter section.

All the cases before you today are included in townships where the Division has already previously approved exceptions to the well-density limitations in the special pool rules. So these are not foreign cases to the Division. They've been before you in the past, and in each case, the Division has approved what we're asking for today in the same townships.

So we have five witnesses. Mr. Creekmore will be introducing Hilcorp to the Division and will give a little bit of a background summary of the

Mesaverde Formation, as well as some -- for context and some background on the procedure. Mr. Eddie Pippin will be presenting an overview of the geology in the Mesaverde and their analytical approach to identifying their target wells. Ms. Michelle Sivadon is a reservoir engineer, and she'll be explaining the basis for the request to -- for the exceptions with respect to each of the wells. And then Ms. Wyn McCubbin and Mr. Brad Pearson are landmen, and they'll be providing specific notice details for each of the cases.

On a procedural note, I just want to review for you so you can easily flip around in this exhibit binder in front of you. Each binder has all 11 cases -- exhibits for all 11 cases. They're ordered by case number from lowest to highest. Each case has 17 exhibits, and in each case, the exhibits are identical but for -- except for the technical engineering exhibits and the notice exhibits, they're specific to each case. So the format and the sequence of the exhibits is the same for each case. So while we may reference Exhibit 8 in one case, it will be the same format and sequence for each case subsequent. Okay?

With that, if you have any questions, let me know, but if you want -- if you have specific questions. We may be addressing one or two cases, and

then I'll be asking my witnesses to confirm if they've done the same analysis, have the same conclusions and same opinions for each of the other cases. But if you have questions for any one case, let me know, and we can go into the details of any one.

EXAMINER JONES: That's good.

MR. RANKIN: With that, I'd call my first witness. I think we need to swear them in.

EXAMINER JONES: Would the witnesses please stand and the court reporter swear the witnesses?

(Mr. Creekmore, Mr. Pippin, Ms. Sivadon, Ms. McCubbin and Mr. Pearson sworn.)

MR. RANKIN: Mr. Examiner, I would call my first witness, Mr. Charles Creekmore.

CHARLES E. "CHUCK" CREEKMORE

after having been first duly sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Creekmore, how are you today?

A. Fine.

Q. Will you please state your full name for the record?

A. Charles E. Creekmore, and I go by Chuck.

Q. And by whom are you employed?

A. Hilcorp Energy Company.

Q. And have you -- what is your job with Hilcorp?

A. I'm a landman. I'm a division landman.

Q. And have you previously testified before the Division and had your credentials as an expert in petroleum land matters made a matter of record?

A. Yes, I have.

Q. Are you familiar with the 11 applications that were filed in this case?

A. Yes, I am.

MR. RANKIN: And with that, Mr. Examiner, I would tender Mr. Creekmore as an expert in petroleum land matters.

EXAMINER JONES: He's once more qualified as an expert in petroleum land matters.

EXAMINER BROOKS: As I recall, you're also an attorney.

THE WITNESS: Yes, I am. I'm licensed in the state of Oklahoma.

MR. RANKIN: So we hold him to a higher standard on the stand.

(Laughter.)

THE WITNESS: But I'm also a registered landman with the AAPL.

EXAMINER BROOKS: And you're warming up to

testify in the horizontal well rule hearings here.

MR. FELDEWERT: I thought the Division was offering testimony.

EXAMINER BROOKS: Pardon me?

MR. FELDEWERT: I thought the Division would be offering testimony.

EXAMINER BROOKS: Not if you want the rule adopted.

(Laughter.)

Q. (BY MR. RANKIN) Mr. Creekmore, you've appeared before the Division many times before but never on behalf of Hilcorp; is that correct?

A. That is correct.

Q. This is the first time Hilcorp's had the opportunity to be before the Division for a hearing?

A. Yes, it is.

Q. Will you just take a moment to review for the Examiners a little bit about Hilcorp's background, how they came to be in the San Juan Basin and a little about the company?

A. Well, Hilcorp was established in 1989. It's one of the largest independently owned oil and gas -- oil and natural gas exploration production companies in the United States. It acquired 1.7 million acres in the San Juan Basin recently, and it goes after conventional

assets and tries to enhance them.

It's headquartered in Houston, Texas, and they have operations in the Gulf Coast, Texas, Louisiana, New Mexico now, Wyoming, northeast U.S. and in the Cook Inlet -- Cook Inlet and North Slope of Alaska.

They acquired ConocoPhillips and Burlington's operations in the San Juan Basin. And I haven't seen -- in the past, I've seen where ConocoPhillips and Burlington were the one -- number one and number two gas producers in the state. I'm not sure -- they didn't acquire the southeast ConocoPhillips' acreage, but I'm sure that we'll be the largest gas producer in the state once those calculations are made again.

The company is generally very aggressive on their development plans. Since acquiring ConocoPhillips' and Burlington's interest, this is one of the first stages. They recognized that there is real opportunity in some of the areas with the Blanco-Mesaverde not being fully developed on a drill-block basis, and they -- at least initially, this is one of their focal points.

The Basin -- ConocoPhillips and Burlington had approximately 5,100 completions in the

Blanco-Mesaverde. Numerous of them were commingled with the Basin-Dakota and the Blanco-Mesaverde because stand-alone economically, it wasn't always feasible to drill a well, but when you combined them and commingled them, it made a great deal of sense.

Q. Okay. So speaking of the opportunity that Hilcorp has identified here, what is it that Hilcorp is seeking? If you can summarize for the Examiners, what is it Hilcorp is seeking with these 11 limitations?

A. Well, as I said, this has always been a priority, since I've been with ConocoPhillips and Burlington ten years ago, to -- to have these combined Dakota-Mesaverde wells. Here, closer examination -- we do have geological and engineering testimony. Closer examination of some of these drill blocks, which allowed for four-well density, not all -- we feel like not all of the Mesaverde was adequately drained. So -- and we've identified Dakota wells that aren't commingled in those areas where the Mesaverde wasn't adequately drained. Consequently, we're wanting to use those wellbores to go uphole and develop the Mesaverde.

Q. But the problem you have, Mr. Creekmore, is that there are special pool rules in place; is that correct?

A. Yes. I'm sorry. Yes. And we have been

prohibited by a variety of reasons, by the Blanco-Mesaverde pool rules, which only allow for four wells per 320-acre spacing unit, two wells per quarter section and one well per quarter-quarter section.

MR. RANKIN: So I'm just going to -- if it's okay that I approach -- hand out a copy of the order that lays out the special pool rules, and I'll ask that the Examiner take this under administrative consideration so that it can be part of the record.

Q. (BY MR. RANKIN) But it is Case Number 123 -- I'm sorry -- 12837, Order Number R-10987-A(1). Mr. Creekmore, you're familiar with this order?

A. Yes, I am.

Q. And will you just -- I think it starts on page 6 in the ordering language where the order addresses the well-density limitations applicable to the Blanco-Mesaverde pool rules; is that right?

A. Yes.

Q. All right. So if you look at page 6 where it identifies the limitations on well density, under subparagraph one, it states that up to four wells may be drilled on a standard gas proration unit; is that correct?

A. Correct.

Q. So one of the limitations here is that the

additional Dakota completion in the Mesaverde would put you at five wells --

A. Yes.

Q. -- in almost every case before the Division today; is that correct?

A. That is correct.

Q. And then one of the other limitations is that, under subparagraph 1E, no more than two wells shall be located within either quarter section in a gas proration unit?

A. That is correct. Yes.

Q. So many of these applications are seeking to have three wells in a quarter section; is that correct?

A. Yes.

Q. So with that -- in addition, there are limitations on locations for the infill wells, is that correct, that same ordering language?

A. Yes.

Q. So you're seeking the approval of your wells as requested in the locations requested for each case?

A. Yes.

Q. So for that reason, you're seeking those exceptions from the special pool rules?

A. From the pool rules, yes.

Q. And the reason that you're here today is

because these special pool rules require any deviation from those rules go to hearing, right?

A. Yes, under the B(1)(F).

Q. Now, you've indicated that there will be geology and reservoir engineering testimony that they'll be addressing they've identified in their analysis that there are unrecovered reserves at risk of -- in place --

A. Yes.

Q. -- unless these additional wells are completed to increase the density?

A. Yes.

Q. Okay. Now, there are 11 cases here today, but Hilcorp has identified other opportunities as well? There are more situations that would apply?

A. Well, there are numerous cases where we wouldn't be involved with a density violation, where it would be the fourth well in the spacing unit. And then -- so we wouldn't have to go to hearing on those. And then we have some that are scheduled for a later hearing.

Q. Okay. But I guess the point is that in your opinion or in Hilcorp's opinion, is there an opportunity to make a poolwide change to permit perhaps administrative approvals of a fifth well and a third well in a quarter section?

A. That is correct.

Q. And these wells that you're seeking today will help, will they not, provide the data necessary to make that presentation to the Division at a later time?

A. Yes. That is the direction we want to go.

Q. So for now -- at some point in the future, Hilcorp intends to come back to the Division with a request to make a poolwide change to permit administrative approvals?

A. That is correct.

Q. Okay. Now, real quickly, I want to just ask you a little bit about the history so we can review the context. I mentioned in my opening remarks that there were prior cases that had been before the Division seeking exceptions to these special pool rules in the same townships.

A. Yes.

Q. And I'll ask you to refer -- and, Mr. Creekmore, I've neglected to direct you to indicate to the Examiners -- you were talking about the acreage that Hilcorp has acquired in the San Juan Basin, and I neglected to direct you to review for the Examiners Exhibit 1, and if we could look at the first case in the packet, which is Case Number 15934, Exhibit Number 1, just to take a moment to step back. Is this first

exhibit a depiction of Hilcorp's acreage in the Mesaverde in the San Juan Basin? Is that right?

A. Yes, it is.

Q. And what do the red stars indicate?

A. The red stars are the cases that are before the Division today.

Q. Okay. So each of those stars represents one well location for which you're seeking a density exception?

A. Yes.

Q. And these are existing Dakota wells, right?

A. Yes.

Q. Okay. And those are identified in that table on the top right corner of the map?

A. Yes.

Q. Okay. Thank you.

Now, getting back to where I was where the Division had previously approved well-density exceptions in the same townships, is Exhibit 1A on the next tab a copy of a list of those cases and orders in which the Division approved those exceptions?

A. Yes. These are some of the cases that you-all have previously approved on the Division level.

Q. And these are just -- just those in which the same townships are at issue for these cases, right?

A. Yes, in the townships where the wells here today are located.

Q. So in addition to individual exceptions, were there also at least one or two pilot projects in which the Applicant -- I believe in both cases it was Burlington -- sought either a section or a larger pilot project to establish the basis for proper well density and spacing?

A. Yes.

Q. Okay. So some of this effort has already been developed for the last 10 or 12 years?

A. Yes. ConocoPhillips and Burlington, Mesaverde is one of their targets and more prolific formations they've been after for years.

Q. And based on your experience, are you aware of any instance where the Division has disapproved a request for exception to the well density --

A. Not --

Q. -- limitations?

A. Not to my knowledge.

Q. Moving on, I just want to talk a little bit about these prior cases in which the exceptions to these pool rules were granted for increased well density. Did the Division require notice to all of the surrounding offsetting 320-acre spacing units?

A. Yes, they did.

Q. And that was the notice procedure that was employed in all those cases that you're aware of?

A. Yes.

Q. Is that the same notice procedure that Hilcorp has employed for these cases?

A. Yes.

Q. And there will be separate witnesses who will address specific notice procedures for each of these cases?

A. Yes. We have additional witnesses.

Q. Now, these wells are all within federal units; is that correct?

A. They're within federal units and within participating areas, both the Dakota Formation and the Mesaverde Formation.

Q. If you flip, Mr. Creekmore, to that first case, 15934, Exhibit 15, flipping ahead, there is a map there that shows red outlines. Is that the federal units in this area?

A. Yes.

Q. Okay. And what is identified in green? Are those the spacing units at issue in these cases?

A. Yes, in the green.

Q. So there are 11 spacing units, and those

represent each of the spacing units in which we're seeking the well-density exceptions for these 11 cases, correct?

A. Yes, that's correct.

Q. So you can see by this map that all the wells are located in federal units and -- with no exception, right? They're all in the federal units?

A. Right.

Q. So did you have any discussions with the BLM in preparation for this hearing, these cases?

A. Yes. I spoke with BLM representatives, both Joe Hewitt and Dave Mackevich, and explained to them what we're attempting to do, and both of them expressed no reservations about this and understood the process, and so they gave me verbal approval.

Q. Okay. And then some of these lands, these include federal trust lands as well, right?

A. Yes.

Q. And you've had discussions with the State Land Office for the proposal of these wells?

A. I also discussed this, our program, with Ed Martin, and he was encouraging us to go ahead with this also.

Q. Now, in every case, for each of these -- or in these federal units, you have already, through Division

orders, preapproval for commingling the Dakota with the Mesaverde; is that correct?

A. Yes. We have preapproval. We've brought cases and had reference cases on all of these units giving us preapproval for downhole commingling with the Blanco-Mesaverde and the Basin-Dakota.

MR. RANKIN: And, Mr. Examiner, we can provide those to you at another time or read them into the record.

EXAMINER JONES: Did you say you've already done that?

THE WITNESS: Yes. I think --

MR. RANKIN: Prior cases already have established it.

THE WITNESS: Oh, prior cases. Years, I think.

MR. RANKIN: '99, 2000 time frame.

EXAMINER JONES: Dakota-Mesaverde.

MR. RANKIN: If you'd like, we can read that into the record, or we can provide them to you later.

THE WITNESS: I can give you the case numbers real quick if you like.

EXAMINER JONES: No, that's fine, because they're listed in our rules, actually.

THE WITNESS: I mean rule number. They're sequential.

EXAMINER JONES: So it's still requiring submittal to the Aztec Office, just a little submittal to the Aztec Office.

MR. RANKIN: Right. Right.

THE WITNESS: But you don't have to send out notice to all owners.

EXAMINER JONES: Okay. Yeah. So these were the ones that actually not only preapproved it, but they also -- these units, they preapproved all the notice issues.

THE WITNESS: Yes. We sent out notice to all of them and had the hearing and got the approval from the Division.

EXAMINER JONES: Sorry to interrupt.

MR. RANKIN: Not at all. We wanted to make sure that question was addressed if it came up so you were aware of it.

EXAMINER JONES: Okay.

MR. RANKIN: With that, Mr. Examiner, I would tender the admission of Exhibits 1 and 1A for each of the consolidated cases, and I would pass the witness.

EXAMINER JONES: Exhibits 1 and 1A for all 11 cases are admitted.

(Hilcorp Energy Co. Exhibit Numbers 1 and 1A are offered and admitted into evidence.)

EXAMINER JONES: There was -- I seem to remember a huge hearing where one of these -- maybe one of these whole units was approved for increased density as sort of a pilot situation where one density would be a well per quarter-quarter, but that must have been the Dakota. That must have been a Dakota, because you're listing one pilot project here, and it's a Mesaverde, and it's one section.

MR. RANKIN: Right. It's one section. There is one other pilot project that includes, I think, four sections or more, but it's -- it's a Mesaverde as well, but just not in the area we're looking at.

EXAMINER McMILLAN: Okay.

EXAMINER JONES: Okay. That's what I could be thinking.

MR. RANKIN: I don't think it was an entire unit. It was a number of sections, but I don't think it was an entire unit.

EXAMINER JONES: Carved out four or five sections and did that.

Okay. So basically what you're asking for here are five wells per spacing unit and three wells per quarter section?

MR. RANKIN: There are some variations. Some of the cases are only asking for three wells per quarter because there is only one in the quarter-quarter section. So there is some variation. It's in the application -- each application, but --

EXAMINER JONES: I'll find it. Yeah. Okay.

MR. RANKIN: Yeah. But we can provide you those findings for each case to further assist you.

EXAMINER JONES: Okay. I appreciate that. They are in here, though? They're in the application itself, actually?

THE WITNESS: Yes.

MR. RANKIN: Yes.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. You went to a lot of trouble do all this, and I do appreciate it. So hopefully we can kind of go from transferring the stuff that you've already QC'd directly in, and we'll check it again.

So this is just -- so your testimony is just to provide the background and the reasoning -- the overall scope of -- so part of it is for increased production and prevention of waste but also to gather data; is that correct?

A. Correct. But also to make money.

(Laughter.)

Q. And make money. Make money (laughter).

And there are no issues about -- because it's -- maybe there wouldn't even be an issue of drilling new wells nowadays with the EIS -- I don't even know if you say EIS nowadays, but the Environmental --

MR. RANKIN: Impact statement.

EXAMINER JONES: -- Impact Statement. There is -- they used to talk about, well, when is it going to get kicked off to form -- make the whole San Juan Basin come up with a new one, but --

THE WITNESS: This will lessen our footprint because we're on an existing pad, and so it is -- you have facilities in place and a wellbore in place, so it makes sense from that standpoint. Yes.

Q. (BY EXAMINER JONES) Okay. Well, why didn't ConocoPhillips do this before now? I mean, Hilcorp took over, and is it just -- just a strategic difference in the companies, I guess.

A. Right. Many of these were in place to be done before --

Q. Oh, okay.

A. -- before ConocoPhillips curtailed investments in the San Juan Basin. I don't know when they decided,

you know, to sell the asset, but some of these are brand-new.

Q. Okay.

A. And as I said, this is our transition, and we have a lot more operations that we plan on doing. But these are -- right now, we felt like we could start in this area. And there are a lot of new people working the San Juan Basin. ConocoPhillips kept a lot of people, and a lot of people took early retirement and things like that. So this is our initial -- one of our initial projects, and we also wanted to introduce the Division to who Hilcorp is and that they are wanting to put money into the Basin --

Q. Okay.

A. -- and are wanting to be real active in the area.

Q. Okay. In the old days, it seems the San Juan had a big problem with trying to get the gas out of there. But the pipelines are there now, and are the -- so it's not such a lower price there than it is in other parts of the country?

A. There's still a lot of infrastructure there, and that's also another good reason for using an existing well pad that has a gathering system tied to that well. Yes.

Q. Okay.

A. It is still difficult to get right away out there, and there are delays and things like that. But does that answer your question or --

Q. Yeah, just the gas prices -- you know, the differential between gas prices in the San Juan versus, you know, Opal [phonetic] or some of the -- especially back East. You know, they always had 40 cents Mcf higher gas prices, it seemed. But San Juan is better now in that respect?

A. I don't know that I can answer that.

Q. Okay. Now, Burlington and ConocoPhillips stayed -- even though they might have been the same company, they stayed in separate entities in the San Juan?

A. Right. For several reasons, they -- Burlington was a wholly owned subsidiary.

Q. Okay. For several reasons. So now -- but the new Hilcorp Energy Corp is one --

A. One company.

Q. -- for both of them? So that's going to add some advantages.

A. Yeah.

Q. And is there still people on the ground there in the San Juan Basin, the same -- what kind of

consolidation of buildings and people has occurred?

A. Right now, the 30th Street building is vacant, but we've consolidated operations in the Highway 64 building -- the one in between Bloomfield and Farmington or near the fairgrounds.

Q. Okay. Has there been -- I guess this is a question for the engineer, but has there been -- are you aware of a big initiative to lower -- lower the wellhead pressure -- compression, in other words, added compression?

A. I think you'll have to wait for the engineer testimony.

Q. Okay. Okay. I better pass it on to these guys.

EXAMINER McMILLAN: I don't have any questions.

EXAMINER BROOKS: I'll save all my questions for the horizontal well rule.

EXAMINER JONES: Sorry to let you go so early here. Thank you very much.

THE WITNESS: Okay.

MR. RANKIN: Thank you, Mr. Examiner. I have no more questions.

I'd like to call my second witness, Mr. Eddie Pippin.

EDDIE A. PIPPIN,

after having been previously sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Pippin, good afternoon. Will you please state your full name for the record?

A. Eddie Anthony Pippin.

Q. By whom are you employed?

A. Hilcorp Energy Company.

Q. And what is your job with Hilcorp?

A. I'm a senior geologist.

Q. And have you previously had the opportunity to testify before the Oil Conservation Division?

A. Yes, I have.

Q. And in that testimony, did you have your expertise as a petroleum geologist made a matter of record and accepted?

A. Yes.

MR. RANKIN: Mr. Examiner, I would tender Mr. Pippin as an expert in --

EXAMINER JONES: Are you related to Mike Pippin (laughter)?

THE WITNESS: I hate when people recognize that. He's my much older brother (laughter).

EXAMINER JONES: Oh, okay.

So qualified.

MR. RANKIN: Thank you.

Q. (BY MR. RANKIN) Mr. Pippin, are you familiar with the 11 applications that were filed in these cases?

A. Yes, I am.

Q. And have you conducted a study of the lands underlying -- the lands that are subject to these applications?

A. Yes, sir.

Q. Okay. Let's talk about what you have investigated. Just to be clear, Hilcorp is proposing to recomplete existing Dakota wells within the Mesaverde Formation, right?

A. Yes.

Q. So the Mesaverde is the target formation well for all of these consolidated cases?

A. Right.

Q. Can you just give us a brief overview of the geologic history and background for the Mesaverde?

A. Sure. You want me to start by going through the exhibits?

Q. Yeah. Let's do that. Let's start with first case in the packet, Case 15934. And I think your first exhibit is Exhibit Number 2. What does that show?

A. So this is just a schematic cross section of the Basin from the west to east. The Basin is a basin-centered gas play with water on the edges holding in the gas through the center, thus the name. It is a stacked pay basin where we have conventional horizons, the Dakota and the Mesaverde, which are, as Mr. Creekmore already mentioned, commonly commingled. We also have a conventional Picture Cliff Sandstone, which is commonly, at least in some parts of the Basin, commingled with the unconventional Fruitland coal. We also have the Mancos Shale, very unconventional and a popular target of late.

Q. So all those comprise the Mesaverde Formation?

A. So the Mesaverde Formation is comprised of the Cliff House, Menefee and Point Lookout.

Q. All right. Do you have a type log that depicts the formations that comprise the Mesaverde Group?

A. Exhibit 3 is from the 29-7 #129M located in the 29-7 Unit, just a few miles away from a number of our cases. It shows the Mesaverde Group being made up of the Cliff House, Menefee and Point Lookout, but also the bounding shales of the Lewis and Mancos above and below. The shales represent a period of higher relative sea level. The Mesaverde, as a whole, is a much lower sea-level period. So as we move up-section from the

Mancos, we tend to grade into the Point Lookout, and it becomes more sandy, less shaley. And so you hit the top of the Point Lookout, which tends to have a relatively clean, blocky-looking sand on the log here. The log, by the way, has gamma ray on the left and resistivity on the right.

The Point Lookout is a combination of kind of a blocky sand rock substance, represents a shoreface sand, as does the Cliff House Sandstone at the top of the Mesaverde Group. There it is -- instead of a declining sea level, we have a rising sea level from the Cliff House until we get into the Lewis time. The only difference there -- or one thing to note is the Cliff House was actually deposited in those times where sea level had a short drop in an otherwise increasing cycle. The Menefee Formation is in between those. The Menefee is more of coastal plain deposit, consisting of laminated fluvial sands, shales and silts.

Q. We'll talk about this just a little later in your testimony, but you evaluated the consistency -- the geologic consistency of this formation, which is basically --

A. Correct.

Q. Okay. We'll talk about that in just a moment.

I want to jump over to Hilcorp's analytical

approach to how it identified the subject wells in each of these cases and in terms of what -- what review analysis did you employ to identify your ideal, basically, Dakota wells and determine that there were unrecovered reserves -- or risks of unrecovered reserves in the subject spacing units.

A. Sure. So in order to understand if you're recovering everything that's there, you have to understand what you started off with. So we started off with a study that identified what we had, gas in place originally, subtracted from that cum production. So it's kind of a simple math formula. One minus the other gives you what is remaining in the formation today.

Q. So, essentially, you used your original calculations for original gas in place, you subtracted the cumulative production across the area, and from that, you determined that there was gas remaining in place more than you would expect; is that right?

A. Certainly. Yes.

Q. And that is an indication to you that there was less effective drainage in certain areas?

A. Yes, sir.

Q. And those are the areas you look to target with your Mesaverde completions?

A. Correct.

Q. All right. So let's look at that. I think you created some slides that depict that analysis visually, right?

A. Correct.

Q. So in that same -- in the same case, 15934, will you turn to Exhibit Number 4 and review for the Examiners what that shows?

A. Yes. So this is original gas in place for the Mesaverde map. Before we talk about how we got to the gas-in-place numbers, there are a few things I'd like to point out.

The outline of the contours on here is all of the Mesaverde production, not just the Blanco-Mesaverde Pool, but all of the pools for the Mesaverde in the Basin. We also have a -- kind of a blue squiggly line through almost the center of this map that represents the fairly good line that demarks where the Cliff House gets wet to the southwest and stays dry primarily to the northeast. There is also a dashed red line, which is where we believe the Mesaverde is a little more fractured than other areas. The stars on here represent the cases we are discussing today.

So to get back to the gas in place, the contours -- the warmer-colored contours indicate higher gas in place. The cooler colors, the blues and greens,

indicate less gas in place. So how we came up with these numbers, we started by just kind of going through the Basin and recognizing where we had a pretty full suite -- logging suites. So we have gamma ray resistivity porosities curves to work with. Then we normalize those logs to account for different vendors, different technology over the various decades. So we were comparing kind of the same thing from location to location.

So from that, then, we calculated water saturation, which allowed us to get gas saturation. We also -- gosh. I went blank for a second. Sorry. So we also calculated effective porosity from that as well, combined that with net pay from well to well with a formation factor and then an acreage. Whether you're looking at a quarter section or a section, whatever, that allows you to do the calculation for gas in place.

Q. Before I move on to the next exhibit, you talked about the area within that red-dashed outline within the -- within the formation, and you described it as the fractured area, right?

A. Yes, sir.

Q. What effect has that higher-fracture zone -- the rock is more fractured in that zone, correct?

A. Correct. It is more fractured there, we

believe. And you'll see kind of the effect of that couple of exhibits. You can see somewhat that it compares somewhat favorably with the higher gas-in-place numbers, but as we start talking about what is produced, what is left in formation, you'll see a much better correlation then.

Q. Okay. So that's naturally occurring fractures in that rock area?

A. Correct.

Q. And those natural fractures contribute to better drainage, as you will talk about in a moment, right?

A. Yes, sir.

Q. Okay. So let's move on to your next exhibit, 5.

A. Exhibit 5 is simply publicly available cumulative gas production for the Mesaverde. And you can see through the center that we have produced a pretty fair amount of gas in the middle of the pool there. Along the edges and outside, basically the fracture trend, we have not done so well with production. And, again, the 11 stars represent the cases we're discussing today.

Q. Okay. And so your next exhibit, Exhibit 6, what does that show?

A. So that is remaining gas. So, again, the kind of simple math formula. You start off with all the gas that's in formation originally, subtract out what you have produced, gives you see the remainder -- or remaining gas in place. And from the colors, you can see there are some areas that -- particularly where the Mesaverde fracture trend is, we have probably produced fairly well. Those wells are still producing, but we probably don't have a great need for additional spacing or additional well completions through there.

Beyond that, where you have all the coloring and the contours, we have not done so well in producing the gas that's in formation.

Q. Okay. And so based on your analysis, you see that in the zones where these stars are, that there is still opportunities for gas recovery, and that existing spacing pattern is not likely draining the reserves in place?

A. That is correct. We believe there is quite a bit of gas still in place.

Q. Okay. Working with a reservoir engineer, you prepared a similar analysis with respect to each of the cases before the Division today, correct?

A. Yes. Each of the other cases will have the same map, but then with one star on them for the case

that is being discussed there.

Q. And your overall conclusion is the same for each proposed well in each of the 11 cases in terms of that there is gas remaining in place and that increased density either in the quarter section or in the -- going up to five wells in the entire spacing unit is necessary to effectively drain that area?

A. That is correct.

Q. Now, I want to move on to your next exhibit. This, I think, represents an idealized representation of the existing spacing under the special pool rules and what Hilcorp essentially is proposing in its application; is that right?

A. That is correct. So this diagram has kind of a before-and-after part to it. In each case, it's a 320-acre drill block divided into two quarter sections. The left-hand side represents what the current rules have, which is four wells per drill block or spacing unit or two wells per quarter section, and how that tends to work out as a parent well and infill well in each quarter section. The parent well being much older, with much higher reservoir pressure at the time, has greater production.

And if you look at the circles drawn in here, on the left-hand side, look at maybe 1 and 3,

Number 1 being the parent well, which has a much larger radius of drainage, Number 3 being an infill well with a much smaller drainage area. This probably works fairly well through the fracture trend area, but if you get away from that fracture trend area, particularly in the areas that we're looking at, and we're just not effectively draining anymore.

So what we're asking, if you go to the right-side diagram, in Number 5 there, is for isolated or specific instances allowing us to have an additional Mesaverde completion.

Q. So your next exhibit is sort of a -- if you're taking that concept and applying it to an actual spacing unit, this is a representation of what a calculated drainage area looks like in the spacing unit; is that right?

A. That's right. This site is actually from a well that you will see in a future case, in another hearing. Again, the circles here, production in this case. Size [sic] is though they are drainage area and -- I won't say ellipse because they're obviously drawn in circles. But this is just for Mesaverde. The dark blue wagon wheels are Mesaverde wells. The light blue squares are Dakota wells. The red outline is a 320-acre, again, with a dashed line dividing it into a

quarter.

If you look at the southeast quarter, you have your typical parent and infill well, same as the northeast quarter, parent and infill. Here, however, the two wells were drilled only about 300 feet apart. This was an early test of what should the correct spacing be for the Mesaverde. So they were actually drilled on what would have been 20-acre spacing.

I don't think I have to stretch very far to say that those two wells are probably not draining that quarter section very effectively. We do, however, have that 138F Dakota well more towards the northeast, which we believe would be an ideal location for an additional Mesaverde completion.

Likewise, you don't have to stretch very far in the southeast quarter. You could probably make a case for another completion there. We don't, however, have an existing wellbore to use there. So that would be something we have to go through a new drill process for.

Q. So this is sort of the overall analytical approach that Hilcorp took to identify, first, what the drainage is in the Mesaverde, and then to see if there was an existing Dakota well that would allow you to access a portion of the spacing unit that appeared to be

not getting adequately drained; is that fair?

A. That is correct.

Q. Okay. Great.

Now, how many of these opportunities have you identified so far with this existing Dakota well that you might be able to access the Mesaverde completion?

A. At present there are about 36 Dakota wells out there that are ideally located for an additional Mesaverde completion. There may be more, but we've not done a truly exhaustive review of the entire area that we have acreage yet. There very well may be more.

Q. So some of the data that you'll be obtaining and acquiring through -- hopefully once these wells are approved, you'll be looking to apply to a potentially pool-rule change to demonstrate the need for increased density in cases -- in certain cases?

A. Certainly I think the data we gather from these examples of these wells will definitely provide some support for that eventual rule change.

Q. Now, one other thing I wanted to just touch on, we talked earlier about the type log in the Mesaverde, and you indicated that you looked at the consistency -- geologic consistency of the Mesaverde Formation in the spacing units.

A. Yes.

Q. And I guess, I think -- if I'm not mistaken, for this particular case, 15934, is Exhibit Number 10; is that right?

A. Yes, sir.

Q. And is that a copy of the cross section for the spacing unit?

A. Yeah. For 27-5 163, we've got a three-well cross section. For each of the cases today, you'll have pretty much the same setup. We tried to provide gamma ray resistivity where available. Sometimes we did not have those curves available. Sometimes we had to settle, as in this case, for a bond log, which also had a gamma ray, something that we could correlate at least the tops to.

So in each of the cases, you will see a three-well cross section with little index map in the upper right. In each case we have the two wells beside subject well within the same section, so it kind of covers the immediate area of concern in each case.

And you can see from the cross section that there isn't much change in thickness for the Cliff House, Menefee or even Point Lookout, although we do not have a base for the Point Lookout. You can also then look at the signature of the curves. You've got the

rather laminated Menefee between. You've got a better-developed Point Lookout below and a better developed Cliff House above, but no significant change across the shorter area of this cross section.

Q. And you conduct the same analysis using available well data -- cross section for each of the cases in this exhibit -- in this exhibit packet, correct?

A. Yes, sir.

Q. And with respect to Case Number 15934, which we're looking at, and 15936 through 15945, you've prepared a cross section and come to the same conclusion that the geologic formation is consistent across each of those spacing units for each case?

A. Yes, sir.

Q. And that's the same exhibit, Exhibit 10, for each of the remaining cases, correct?

A. Yes.

Q. And the prior exhibits that we reviewed, 3 through 8 are all the same exhibits for all the other cases as well, correct?

A. Yes, sir.

MR. RANKIN: With that, Mr. Examiner, I would --

Q. (BY MR. RANKIN) And your testimony is the same

for all the exhibits for every case, correct?

A. That is correct.

MR. RANKIN: With that, Mr. Examiner, I would tender the admission of Exhibits 3 through 8 and Exhibit 10 in each of the consolidated cases, Case Numbers 15934 and 15936 through 15945.

EXAMINER JONES: Exhibits 3 through 8 and Exhibit 10 are admitted in all 11 cases.

MR. RANKIN: Thank you, Mr. Examiner.

With that, I pass the witness.

(Hilcorp Energy Co. Exhibit Numbers 3 through 8 and Exhibit Number 10 are offered and admitted into evidence.)

EXAMINER JONES: Michael, you want to go first? I'm looking at you.

CROSS-EXAMINATION

BY EXAMINER McMILLAN:

Q. First of all, I'm glad you know the importance of a geologist over the engineer.

(Laughter.)

A. Obviously it starts with the geology, doesn't it?

Q. It does.

All I remember from Point Lookout was a long time ago. Was it in Cabezon, just out here north

of San Ysidro? I went to those outcrops when I was in school. Those are some great outcrops. I had a professor who did a study out there.

A. We've also got a real good Point Lookout outcrop up in Durango, just an hour from our field office. You can walk through the entire section from the Mancos up through where the sand of the Point Lookout is starting to push down into the shales all the way up into and through the Menefee.

Q. I'm pretty ignorant of geology. It's been a while.

A. Okay.

Q. So is the Menefee prospective, by the way?

A. It is. It is not as good, obviously, as the bigger, thicker Cliff House or Point Lookout, but there are a lot of little sands within the Menefee. And when we frac these, we always try to put perfs in there. We sometimes handle it a little bit differently because the small sands aren't going to take the frac nearly as well as the thicker Cliff House and Point Lookout. But Menefee, of course, is both a source and a reservoir rock. The shales and certain coals within the Menefee have supplied gas, as well as the Cliff House and Point Lookout, but there is still some in there to go after.

Q. Is there just one sand, or is this a series of

little sandbars in the Point Lookout throughout this that you're prospective for?

A. So for each well or location, there tends to be a thicker sand at the top. It's not a pure massive sand. There are some divisions within that sand, and as you get below that, there are smaller sands that come in and become less and less as you grade into the shales of the Mancos. So yeah, there is a series of sands, but the primary target would be the very top of the Point Lookout.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. So you've got a coarsening upward from the base of the Point Lookout up to the -- up to the -- close -- near the Menefee --

A. Uh-huh.

Q. -- and --

A. In fact, the base of the Point Lookout or top of the Mancos can be a difficult pick. And if you have five geologists, you'll probably get six different opinions as to exactly where that defining line can be.

Q. I wondered how you could do that.

A. I've had many --

Q. It didn't seem possible to me.

A. I've had many discussions on where you do it.

I tend to pick kind of the lowest point where you run out of those sands or silty areas completely and it all looks like more of a -- a more purer shale. That seems to be the easiest way that I've seen to pick it.

Q. Sometimes those lower shales below the coarser rocks are more fractured. Is that the case in the Point Lookout?

A. I'm not sure I've seen any evidence that we have of that. You know, they're not going to be as solid and structurally sound, so I could believe that. I don't know I've seen evidence of that.

Q. Okay. You mentioned basin-centered gas. The geologist I use to work with -- that was a big buzzword back in the, I think, '80s or early '90s. And based on --

A. Am I showing my age again?

Q. I think you might have there --

A. Okay.

Q. -- because based on something up in -- some tight section up in Canada that had a basin where it had some -- even almost conglomerate in the middle, where the gas was -- just extremely conductivity of gas through that.

A. Yeah. You can picture the San Juan Basin as almost an odd-shaped bowl somewhat that's had the top

cut off of it. And an outcrop, you have atmospheric water coming in and kind of holding in whatever is there. And, of course, the formations themselves have a lot of hydrocarbon in them. So in the center, again, you have that gas almost trapped in there, and it doesn't percolate out very well through the water in some cases.

Q. So it's hydrodynamic, then?

A. Pardon me?

Q. Hydrodynamic trap, sort of?

A. Yes, sir.

Q. So this sweet-spot area, you say it's more fractured. So that corresponds with the sweet spot in the Fruitland, too; is that correct?

A. No. It doesn't line up that well.

Q. It doesn't line up.

A. And it's not just fracturing. If you look on the one gas-in-place slide, there is a more fractured area, the outside of those warner-colored contours. I think what the warmer contours represent is better porosity, permeability, so better reservoir parameters kind of through that, I'll say, fairway area.

Q. Okay. So better reservoir parameters -- better -- better gas storage --

A. Yeah. So if you have better porosity, you've

got more space there for gas to reside in.

Q. Is it deeper also?

A. It does tend to be a little bit deeper in some of those areas.

Q. Higher pressure? So a little bit higher pressure, then, too?

A. I'm trying to think. So all I've seen lately is a current pressure map, which really mimics the Mesaverde -- or the fracture trend area. We have much lower pressure. I don't recall offhand a great difference in pressure originally.

Q. Now, your database, you have all your logs digitized; is that correct? And so --

A. We have a lot digitized. Certainly not all.

Q. Okay. And you have a series of cores through the Basin that you can take the porosity from the cores, porosity from the logs, from the clean sands and have a plot of log porosity, core porosity? Is that what you used --

A. Yes, we have done.

Q. -- in this study?

A. We do have some cores. We would love to have more cores so we can make more of a correlation, but --

Q. Geologists always want more cores.

A. Absolutely. The more data, the better.

Q. The better.

And these workovers -- workovers are definitely cheaper than drilling new wells, but you're not worried about losing your Dakota -- last remaining Dakota production in these wells?

A. No. We'll commingle the formations afterwards. So we'll set a plug above the Dakota to protect it while we're doing our stimulation in the Mesaverde, get that cleaned out well, get the sand not running or kind of blow off some of the nitrogen from the frac, and then we'll drill out that plug and have commingled -- for the Dakota again.

Q. Okay. Are you going to do workovers in the Dakota like a re-frac before you do all that, or are you just going to --

A. We currently don't have plans for that. If anything, we'll clean out that wellbore, which may help the Dakota.

Q. Which may help.

And the waters, are they similar in the -- you say just north of this line, in the Cliff House, is lower than a certain water saturation. What water saturation do you --

A. So north of that line, you have -- it's fairly dry. We don't tend to make a lot of water in the

Mesaverde there. And then, of course, south of the line it's wet, so we don't complete it. So it's not an issue of commingling those waters at all. And we have so little water production to the north that we don't have an issue, again, with scaling or anything there, which I think is why we got the preapprovals.

Q. Okay. That was going to be my next question. You're basically -- so what about the Lewis? This is -- I won't waste too much time here. But the Lewis -- I know Phillips was doing some Lewis workovers at one point in the San Juan, and you've got the Lewis right above you. I noticed on your cross section -- one of your cross sections, you actually split it out in the two separate --

A. So in the northeast part of the Basin, the Lewis is part of the Mesaverde. That is correct.

Q. Okay. Okay.

A. To the southwest, it's Chakra. So you draw a magic line in the same formation, but it's Chakra to the south, Lewis to the north.

Q. Okay?

A. We are about half and half of the cases we have here.

Q. Okay.

A. So yes, we have Lewis there. Phillips, Conoco,

Burlington all have done some testing of Lewis with, I'll say, limited success.

Q. Okay.

A. It does actually cause us some operational issues later on.

Q. Oh.

A. So our intent at this point does not include the Lewis. I'm not sure we actually get our money back on the money we spend on the Lewis.

Q. Okay. Okay. Now -- so basically -- can you use, basically, the same RW in the whole Mesaverde --

A. Pretty well.

Q. -- on your log calculations?

A. It varies somewhat.

Q. Okay.

A. But we've used roughly the same RW within a small range across the Basin.

Q. And are you looking for -- did you split out your gas in place -- you don't have to -- basically between the Cliff House and the Point Lookout here, you're not giving much to the Menefee, right, in these predictions?

A. No. In the Menefee, we're really looking to calculate out a whole lot partly because there is just not that much net pay there.

Q. Okay.

A. So if anything else, that's going to wipe out much of that thicker section, because the Menefee can be 3-, 4-or-so-hundred feet thick --

Q. Yeah.

A. -- versus maybe the 40, 50 feet that you'd have in the Point Lookout and the Cliff House. So if you went by just thickness, the Menefee would be incredible, but, again, you're just focusing on those little laminated sands in there instead of a big, thicker one. And then the sands, because they are so thin, tend not to have the greatest properties as well. So you don't have the porosity and permeability.

Q. Okay. So your capacity and your gas storage in your Cliff House versus Point Lookout, is the Cliff House a little bit less than most of these?

A. Yeah. From what I've seen, Point Lookout tends to be a little bit better. And certainly production-wise, we've seen that. It contributes, I think, more than the Cliff House does. We've seen that on after-frac logs. And, of course, you can look at where the Cliff House is wet. You still have pretty good production from just the Point Lookout.

Q. Okay. So you'll look at each one of these separately, and you'll just -- you won't run any more

logs. You've already got your logs run.

A. That is correct. We -- we should have at least a bond log in each of these. If we don't, we'll go ahead and run a bond log to make sure we've got cement across the Mesaverde, and we'll use that to actually pick our perfs. But generally -- well, again, we've got Dakota below us, so we had to run some sort of log, even if it's just a plain ol' gamma ray, so we could pick perfs there. And more often than not, we'll run that log all the way up.

Q. Okay. So in your studies, did you -- when you draw, you know, a direct -- let's say from a -- geologically, a drainage radius around this -- let's say the Point Lookout in these wells. Is it going to be oblong, or is it going to be facing north, going from Seattle to Houston or --

A. Good question and sometimes a point of argument. So, first, we don't separate out Point Lookout from Menefee or Cliff House as far as drainage. We do it all as a Mesaverde Group as a whole.

Q. Okay.

A. My opinion is we certainly start off with more of an ellipse, kind of a northeast-southwest pattern just because you're following the fracture trends there, and that's the direction of the fracture. So you

probably drain those fractures first. So you have more of an elongate drainage area to begin with. But once you drain those fractures, then you're relying on your stimulation to have gotten into the matrix, and then you're drawing from the matrix. So the elongate drainage starts to kind of shrink down, become a really stubby-looking ellipse. And some would argue that ultimately you're going to get more of a circular pattern, which is how I represented some of the wells on here.

Q. Okay. Thank you very much.

EXAMINER BROOKS: No questions.

EXAMINER JONES: Thank you, Mr. Pippin.

MR. RANKIN: Thank you, Mr. Pippin.

I'd like to call our third witness, Michelle Sivadon.

EXAMINER BROOKS: Well, I'm going to be leaving in ten minutes, so it's up to the people who are going to be staying --

EXAMINER JONES: Ten minutes will be more than your presentation, though, so we better take a break and try to chase Gabe down.

(Recess, 3:21 p.m. to 3:34 p.m.; Examiner Brooks not present; Examiner Wade present.)

EXAMINER JONES: Okay. Let's go back on the record and continue.

MR. RANKIN: Thank you very much, Mr. Examiner.

I'd like to call our third witness, Ms. Michelle Sivadon.

MICHELLE M. SIVADON,

after having been previously sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Ms. Sivadon, state your full name for the record.

A. Yes, sir. Michelle Marie Sivadon.

Q. By whom are you employed?

A. Hilcorp Energy Company.

Q. What is your job description with Hilcorp?

A. Senior reservoir engineer.

Q. Have you ever had the opportunity to testify before the Oil Conservation Division here in New Mexico?

A. No, sir, I have not.

Q. Will you please review for the Examiners your background and education?

A. Yes, sir. I received my Bachelor of Science in petroleum engineering from Texas A & M University in

August of 1993.

Q. And will you please also review for the Examiners here your relevant work experience as a petroleum engineer?

A. Yes, sir. I spent approximately seven years with Union Oil Company of California. From there, I went to Anadarko Petroleum and spent four years with them. From there, I went and joined Burlington Resources, who subsequently was acquired by ConocoPhillips, spending an entire time of about two-and-a-half years with them. And I've been with Hilcorp Energy Company for the last 11 years.

Q. Do you have any certifications or professional memberships that you're a part of?

A. Yes, sir. I am a member of the Society of Petroleum Engineers since 1990. I am also a registered professional engineer both in the states of Texas and Louisiana, where I've done all of my engineering work up until about the last six months.

Q. And are you familiar with each of the 11 applications that are before the Division today?

A. Yes, sir, I am.

Q. And have you conducted an engineering study that supports your conclusions for each of these 11 cases?

A. Yes, I have.

MR. RANKIN: Mr. Examiner, I tender Ms. Sivadon as an expert petroleum reservoir engineer.

EXAMINER JONES: Can you spell your last name.

THE WITNESS: Yes, sir. S-I-V-A-D-O-N.

EXAMINER JONES: Okay. She is so qualified.

Thank you.

Q. (BY MR. RANKIN) Mr. Pippin gave us overview of the geology in the area and within each of the spacing units, and he also gave us a brief analytical review of Hilcorp's analytical approach to identifying targets, Dakota wells, for recompletion in the Mesaverde. You conducted an analysis for each of these specific well locations; is that right?

A. Yes, sir.

Q. So let's go ahead and take a look at one. And I think, unless you have a different preference, I will start with the first case in the exhibit packet for 15934. Is that okay?

A. Yes, sir.

Q. All right. Let's turn to your first exhibit, which is marked in that exhibit packet as Exhibit Number 9.

A. Yes, sir.

Q. And will you please review for the Examiners what this map shows?

A. Yes, sir. To the left on this exhibit is a map of nine sections, with the section with the proposed well, the 27-5 Unit 163E, in the middle of this nine-section square. What we have denoted on here is something that Mr. Pippin discussed previously. The blue wagon wheels represent Mesaverde completions that have produced with corresponding brown circles being in the drainage areas or calculated for each of these producers.

The light blue squares are Dakota producers where we may have potential to go back and add the Mesaverde and commingle it with the Dakota. And in particular, in Section 18, the red circle denotes where this specific well is, the San Juan 27-5 Unit 163E.

Over here on the right, we have some details with the specific well. This well is located in the southwest quarter of Section 18. It was drilled in 2007 and drilled specifically for the Mesaverde and Dakota. This would be the third Mesaverde completion in this particular quarter section. It is 1,100 feet away from its nearest offset, which that equates to about 87 acres as far as spacing. We are proposing this

particular well to help drain largely the area mostly to the east where you see the white and we're calculating that we are not effectively draining.

We would propose to complete the entire Mesaverde interval here in two stages -- in two frac stages. And this particular well is near the center of Section 18.

Q. So this is -- this is a map you would use to identify the Dakota well, and then you applied your original gas-in-place analysis to confirm that there was remaining gas reserves that were not being accessed by the existing well spacing?

A. Yes, sir.

Q. And is that depicted in your next exhibit, Exhibit 11? This is similar to what the one that Mr. Pippin used for each of the cases; is that right?

A. This is correct. This is the same map that Mr. Pippin went through. This particular map has a red star for the subject well.

Q. Okay. Can you review for the Examiners how you conducted your specific analysis for this specific well here?

A. Sure. So this map is original gas in place, as Mr. Pippin described, using the petrophysical properties that we have across the entire Basin. Again, warmer

colors suggesting the higher original gas in place. So you can see with this red star, we are in a location of higher gas in place.

Q. And then the next step in your analysis was to review the cumulative production; is that right?

A. Yes, sir.

Q. And that's your next exhibit, Exhibit 11 -- I'm sorry -- 12?

A. Correct, Exhibit 12.

Q. Sorry. Exhibit 12.

A. Yes, sir.

Q. Will you review for the Examiners your analysis here?

A. Sure. So as Mr. Pippin described earlier, this is a map showing the cumulative gas that's been produced out of the Mesaverde across the entire Basin. As you can see here, where we have the red star located for the subject well, it is in the lighter or cooler colors, which denotes that there has not been much gas produced in this area, and that would lend itself towards there being a fair amount of remaining gas in place, and an additional take point would be needed to drain that area.

Q. Okay. And then that's your Exhibit Number 13; is that right?

A. Yes, sir.

Q. Okay. So review for the Examiners what that shows.

A. Yes, sir. So this map, again one that Mr. Pippin has discussed, is remaining gas in place for the Mesaverde interval. The entire interval, which you can see here with our red star denoting the location of the subject well, it is in the warmer colors, again suggesting that there is a significant amount of remaining gas in place and that we need additional Mesaverde take points to drain that gas.

Q. And it's a little bit hard to read, I guess, but that star is over, I guess, a larger or warmer area, right?

A. Yes, sir.

Q. So that's an indication to you that there is opportunity there for developing incremental reserves, right?

A. Yes, sir.

Q. Okay. Now, based on your analysis, then, did you also calculate the recovery factor for the existing wells' spacing pattern for the proration unit?

A. Yes, I did.

Q. And is that depicted in the next exhibit, Exhibit 14?

A. Yes, it is.

Q. Will you review for the Examiners what your analysis shows there with respect to the recovery factors?

A. Yes, sir. This is a table showing original gas in place and recovery factors for the area surrounding the subject well, the San Juan 27-5 Unit 163E. At the top of this exhibit is a table. In the first column are various areas that we looked at to calculate original gas in place and recovered areas. We chose to look at it by quarter section and then the entire section and then the nine-section square that we saw in another previous exhibit. This was all to give us some recovery factors and prove within our own minds that we had enough gas remaining in place that we needed to put in additional take point.

The second column, "Volumetric Original Gas in Place" is what we calculated for each of these respective areas. So for this particular well, we are showing 7 Bcf original in place in the quarter section, 20 Bcf in the entire section. And for the nine-section square area, we're looking at a total of 222.4 Bcf being original in place.

In the next column is what we call the "Section Equivalent Original Gas in Place." This is

simply, in the case of a quarter section, taking what we calculated to be original gas in place for that and multiplying it by four. For the case of the nine-section square, it was taking the original gas in place for that and dividing it by nine just to come up with the section equivalent just to show that we have about the same volumes any way that we look at it.

In the fourth column, we have the cumulative gas produced to date and, of course, finding recovery factor or recovery efficiency for that cumulative production. So in the case of the quarter section, to date, we have recovered 1.7 Bcf, and that equates to a 24 percent recovery efficiency or recovery factor. That's much lower than the 80 to 85 percent recovery efficiency that we would expect for a depletion drive gas reservoir, suggesting that we have plenty of gas in place to put in an additional take point.

For the section, cum to date is 6.1 Bcf, with approximately a third of that being recovered, or 31 percent. In the nine section, the cum is 56.1 Bcf, equating to only a 25 percent recovery efficiency.

So any way we can look at this, the quarter section or the section or the nine-section square, it clearly demonstrates it has not been overproduced, and there's plenty of gas in place to add additional take

points.

For the fifth column, "Remaining Gas in Place," this is a simple subtraction of the biometric oil-gas -- original gas in place and subtracting the cum to date, again just proving that we have enough in place to chase after. So for the quarter section, we're showing 5.3 Bcf. For the section, we're showing 13.9, and for the nine-section square, we're showing 166.3 Bcf remaining.

In the last column to the right, we are showing the estimated ultimate recovery and its corresponding recovery efficiency or recovery factor. These EURs are decline curves performed on the current producers. So this is looking at a semi-log plot of production over time and applying hyperbolic declines -- hyperbolic to an exponential terminal decline.

Again, for each of the corresponding areas -- so for the quarter section, what we're saying is all the current producers, we're estimating we will get to an ultimate recovery of 2.2 Bcf. So that would be with not having any other additional take points in that quarter section. And with that, we're showing we're only going to recover a little less than a third of what's original in place of 31 percent, again significantly lower than the 80 to 85 percent that

ultimately we think we can attain with a depletion drive gas reservoir.

For the section, we're forecasting to recover a total of 9.6 Bcf, which is a 48 percent recovery efficiency. And for the nine-section square, we're showing that we're going to recover 90.4 Bcf for the current producers, which would give us a 41 percent recovery efficiency.

So any way we look at this, by the quarter section, section or nine-section square, our recovery efficiencies are fairly low, and, again, we think this warrants putting in additional take points and spacing.

Q. Now, to reiterate what we've reviewed so far, Exhibits 9, 11 through 14. And you can conduct that same analysis for each of these cases, correct?

A. Yes, sir.

Q. And Exhibit 9 and 11 through 14 follow the same format and sequence with respect to each of the cases that are before the Division today?

A. Yes, that's correct.

Q. And based on your calculated recovery factors in each of these cases, it's your opinion that there are incremental reserves that remain under-recovered and will be unrecovered unless an exception is granted for this well and/or a third well per quarter section?

A. That is correct.

Q. And that's your same opinion and your same conclusion with respect to each of the 11 cases before the Division, right?

A. Yes, sir.

Q. Okay. Now, the addition of a fifth well, in your opinion, would it negatively impair or affect -- adversely affect the energy reservoir, in your opinion?

A. No, sir. It will not.

Q. And that's your opinion for each of the 11 cases?

A. That is correct.

Q. Now, just to -- just to be clear, there is some variation in the recovery factors you've calculated for each of these cases. There is some range of terms of what you've calculated the existing well spacing pattern you'll be able to recover; is that right?

A. Yes, sir.

Q. And that range is variable. But despite the variation, you're of the opinion that a fifth well and/or a third well in the quarter section is necessary to access those incremental reserves?

A. Yes, sir.

Q. And that's your opinion with respect to every case that is before the Division?

A. That is correct.

Q. All right. Now, I want to just talk a little bit about the potential issue of correlative rights. And I'm going to ask you to flip ahead to the next exhibit, Number 15, in this case, and that is a map that was previously reviewed for the Examiners. But since we have a new Examiner here, I would just like for you to identify and confirm for me that the -- the red outline are the units that are operated by Hilcorp; is that right?

A. Correct.

Q. Did I say red? I meant blue.

EXAMINER JONES: You said red.

MR. RANKIN: I was throwing you a curve ball.

Q. (BY MR. RANKIN) The blue line represents the outline for each of the units that are operated by Hilcorp, correct?

A. That is correct.

Q. And the green outline -- I'm not really color blind. The green outlines are the spacing units that are the subject of these 11 cases -- these 11 applications, right?

A. Yes, sir.

Q. And so that indicates that each of the spacing

units at issue are within -- wholly within the units that are operated by Hilcorp, right?

A. Yes, sir.

Q. And so in your opinion, is there any impairment -- or risk of impairment to the correlative rights -- correlative rights in the offsetting spacing units for each of these subject spacing units in these cases?

A. No, sir.

Q. Is that your opinion because the ownership is common between the subject spacing unit and the offsetting spacing units?

A. Yes, sir.

Q. And where -- in some instances, your spacing units are bordering neighboring units?

A. Uh-huh.

Q. Or, in the case of the 28 North, 7 West unit, you're bordering in the northwest there in some nine-unit acreage as well, right?

A. Right.

Q. With respect to those spacing units in which you're bordering another unit where there is a different or noncommon ownership or you're bordering a nonunit where there is also noncommon ownership, is it your opinion that the correlative rights are not being

impaired because those spacing units are not being effectively drained?

A. That's correct.

Q. And so an additional fifth well or third well in a quarter section, in your opinion, is not going to risk impairing any of the correlative rights for the units offsetting noncommon ownership spacing units?

A. That is correct.

Q. And that's your opinion with respect to each of these 11 cases, for all the spacing units and for all the offsetting spacing units in every case, right?

A. Yes, sir.

Q. Okay. Now, I think that's all I wanted to hit on. You touched on everything.

MR. RANKIN: And with that, Mr. Examiner, I would move the admission of Exhibits 9 and 11 through 14 in each of the cases before the Division, Case Numbers 15934 and 15936 through 15945.

EXAMINER JONES: Exhibit 9 and Exhibits 11 through 14 are admitted in all cases.

(Hilcorp Energy Co. Exhibit Numbers 9 and 11 through 14 are offered and admitted into evidence.)

MR. RANKIN: Pass the witness.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. Okay. So you're going to do one frac job for the -- like a nitrogen frac job for the Point Lookout and then one for the Cliff House?

A. What we've been doing most recently is we are doing some fracs and doing them in two or three stages. In some cases we'll do Point Lookout and Lower Menefee together and Upper Menefee and Cliff House together.

Q. Oh, really?

A. We have also done some Point Lookout as one stage, Menefee as one stage, and Cliff House as a third stage.

Q. So it just depends on what the well looks like?

A. Yes, sir, very much. It depends on what the rock quality and reservoir quality looks like in the Menefee and the Cliff House. The Cliff House is what -- of course we don't fracture it there.

Q. Okay. There has been a few of these done, increased density, in the past. Did you look at any of those, or did you have time to look at any of those when --

A. No, sir. I have not had time to look at them yet. It's something we will be looking at going forward.

Q. The explanation to us is hopefully, you know, not anymore rigorous, and you have to show to your management --

A. Right.

Q. Do you have to do the economics also?

A. Yes, sir. Yes, sir. But you're right. Some of the work that we did for this hearing is the same exact work that we would do in terms of trying to get it approved.

Q. Okay. And the difference between the remaining reserves, you know, some -- we used to look at that as the difference between the BGI and the BGL, the final -- in other words, your abandonment pressure versus your pressure you've got now.

A. Right.

Q. So is that kind of the way you -- you could look at it like that also, right?

A. We could. ConocoPhillips didn't get a whole lot of pressure data in most recent time. Again, it's something we're fairly new to, so we're trying to get our arms around that pressure date and get a better feel for what that abandonment pressure would be. So in lieu of that, we're using kind of the rules of thumb for recovery efficiencies as expected for depletion drive gas reservoir.

Q. Okay. And so if you do -- the wells that you're offsetting, some of those may be downhole commingled, so it's going to complicate your efforts to compare pressures between that well and the new pressure?

A. Yes, sir. Yes, sir. It does complicate things.

Q. Are you going to do any pressure gathering on the --

A. We're still in discussions about that as far as which wells we want to get pressures in and how do we want to go about doing that, where does it make the most sense to get that information. Because of the nature of the permit here, it can take a significant period of time to get realistic pressure data points.

Q. Yeah.

A. So we are in discussions about what's the best way to do that.

Q. That's the Rocky Mountains for you, I guess.

A. Right. Right.

Q. Do you use Dr. Crafton's software, where you analyze the production decline to -- it's kind of -- he's out of the Colorado School of Mines, and he wrote some -- he has some software and wrote some books on basically not having to do a pressure test, you know,

basically coming up with a lot of your data from --

A. Surface.

Q. -- just the decline.

A. Are you talking about rate transient analysis, where we can use the surface pressure?

Q. It's rate transient analysis to kind of use with the same equations and --

A. Yes, sir. We do use Fekete Harmony software, which does the rate transient analysis. We have used that on some of these wells, and we will continue doing that going forward because we do have limited downhole pressures.

Q. Okay. What about the decline characteristics of these? What are you expecting, like a hyperbolic --

A. Hyperbolic with an exponential -- going into an exponential decline with a terminal decline rate, they end up being fairly flat. Out in the future, I'd say between 3 and 5 percent, maybe up to 7 percent terminal decline rate.

Q. But hardly any water so --

A. Correct.

Q. -- so it's a good situation.

A. Yes, sir. Yes, sir.

Q. Okay. Okay. Well, are you going to do any re-fracs on these? That kind of was the buzzword

several years ago, you know.

A. Right. Right. So in recent history, Hilcorp has attempted two Mesaverde re-fracs. We've just pumped those jobs in December, so we're still monitoring the production from those to get a feel to what our success rate is on those. In the San Juan east side, which is the team that I'm on, we are looking at a re-frac of Dakota well as well, and we will continue to look for re-frac candidates going forward.

Q. Okay. I don't have any more questions. I wish you luck in your venture.

A. Thank you.

And can I --

Q. Yeah.

A. I know you asked the geologist -- or you asked Chuck a question about compression, which is near and dear to my heart.

Q. Yeah. I forgot to ask you.

A. So yes, sir. We are doing work to lower system pressures. As the reservoir pressure has gotten lower, wells are much more sensitive to the pressure at the surface. And we've been very fortunate in that our gas-gatherers work us really closely and well on helping us put in additional compression to address that. So it's being very actively worked.

Q. Okay. And that looks -- maybe it's economic to do that?

A. Yes, sir. Yes, sir. We are still able to make money at it, and Hilcorp's goal is to lower operating expense significantly from what ConocoPhillips has so that we can make more money at it.

Q. Okay. Thanks for reminding me about that. I forgot to ask that.

EXAMINER JONES: Questions?

EXAMINER WADE: Definitely not. Thanks, though.

(Laughter.)

MR. RANKIN: Thank you very much, Ms. Sivadon.

I'd like to call our next witness, Ms. Wyn McCubbin.

WYN E. McCUBBIN,

after having been previously sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Good afternoon. Will you please state your full name for the record?

A. Wyn Emerson McCubbin.

Q. And by whom are you employed?

A. Hilcorp Energy Company.

Q. And what is your job with Hilcorp?

A. I'm a senior landman on the San Juan South team.

Q. What are your -- have you previously testified before the Oil Conservation Division?

A. I have not.

Q. And what are your job duties in that role?

A. I work any aspect of a subsurface landman.

Q. And so since you haven't yet been qualified as an expert in petroleum land matters, will you review for the Examiners your educational background?

A. Sure. I graduated from Texas Tech University in December of 2000 with a degree in petroleum land management, went to work for Marathon Oil straight out of college and worked with them for 13 years, and then took a three-year hiatus, and then started with Hilcorp in January of last year.

Q. And are you a member of any associations, or do you have any other certifications within your land profession?

A. Yes. I'm a certified professional landman with the American Association of Professional Landmen.

Q. And are you familiar with the 11 applications filed in this case?

A. I am.

Q. And are you familiar with the status of the lands? Have you done some work on the lands to identify the parties requiring notice?

A. I have.

MR. RANKIN: And with that, Mr. Examiner, I would ask that -- we tender Ms. McCubbin as an expert petroleum landman.

EXAMINER JONES: She is so qualified.

THE WITNESS: Thank you.

MR. RANKIN: Thank you very much.

Q. (BY MR. RANKIN) Ms. McCubbin, Hilcorp divides its work internally based on the geologic area; is that right?

A. That's correct.

Q. And so I'm going to ask -- we're going to start for you with a more interesting land case. It's Case Number 15942. So I'll give the Examiners a moment to turn to that exhibit packet in the binder.

Within that exhibit packet, will you please turn to Exhibit 15, Tab Number 15. And this is the map that we looked at before that shows the Hilcorp-operated federal units and identifies in the green outline the subject spacing units for these applications, correct?

A. That's correct.

Q. On this map, can you identify which wells your obligations fall under?

A. My area includes Township 29 North, 7 West and Township 28 North, 7 West.

Q. Okay. So let's talk about one of those spacing units of wells in detail. And for all those wells, are the wells that you identified the interested parties and the parties requiring notice?

A. Yes.

Q. And looking at Exhibit 15, it appears that Hilcorp is the operator of all the offsetting 220-acre spacing units with the exception of the spacing units in the northwest quarter of 28 North, 7 West unit; is that right?

A. That's correct.

Q. Okay. Let's take a look at that one because the others are a little more straightforward in the sense they're identifying all your working interest owners either in the same unit or in the neighboring unit; is that right?

A. That's correct.

Q. Okay. So let's look at that one. The next page is a blow-up of that spacing unit; is that correct?

A. That's correct.

Q. And is the -- will you just review for the

Examiners what the red outline depicts and explain for them how you identify the notice parties?

A. Sure. The red outline is the corresponding -- or the 320-acre spacing units that are contiguous to our spacing unit that we want to add the fifth well.

Q. Okay. So in the -- to the southwest, all the offsetting spacing units are -- the working interest owners are in the 28 North, 7 West unit, correct?

A. Yes.

Q. And then to the northeast there, the working interest owners are in the 29 North, 7 West unit, correct?

A. Yes.

Q. And then to the southwest -- in the spacing unit to the southwest, outside of the unit area, is that -- the spacing unit operated by BP?

A. That's operated by BP, correct.

Q. And then the spacing units to the west and to the northwest, outside of the unit boundaries, those are operated by Hilcorp?

A. Yes.

Q. And so in those -- those spacing units -- you noticed the working interest owners in those spacing units?

A. We did.

Q. Now, looking at your next exhibit, is that a copy of a list of all the parties who you identified as requiring notice in each of those offsetting 320-acre spacing units?

A. That's correct.

Q. And highlighted in bold in the third row is BP American Production Company?

A. That's correct.

Q. And you identified them in bold because they are the operator of that one spacing unit to the southwest of the subject spacing unit in your notice area?

A. That's correct.

Q. Okay. And did you receive any comments back from BP as a result of your giving them notice?

A. I did.

Q. And what was their response?

A. I reached out to the corresponding landman at BP, and he stated that BP has no problem with our applications.

Q. And did he memorialize that position in an email to you as identified in Exhibit 17A?

A. He did.

Q. And that's the email you received from Mr. Craig Ferguson?

A. That is correct.

Q. Now, with respect to all the other interest parties, the next page on your exhibit behind that list, is that a letter that you sent to all the working interest owners in each of those offsetting 320-acre spacing units?

A. Yes, it is.

Q. And the next letter is a letter that you sent to BP as the offsetting operator?

A. Yes, that's correct.

Q. And then the next page, is that a copy of the United States Postal Service tracking sheet for each of the individuals that you identified on the prior list?

A. It is.

Q. And based on the data from the postal service, did you receive any of these letters back and -- notice letters back as being undelivered?

A. I did not.

Q. Now, we chose this case because it was a little bit different than the others because you had a different operator offsetting, but did you go through the same process of identifying all the working interest owners in each of the 320-acre spacing units surrounding each of the subject spacing units for each of these cases?

A. I did.

Q. And for Case Number 159 -- we'll identify which cases it was that you were responsible for first. You handled the notice process for Case Numbers 15938 and 15940 through 15945, is that correct?

A. That's correct.

Q. So with respect to each of those cases, you filed the same notice procedure where you identified, for each of the surrounding 320-acre spacing units, the working interest owners in each of those units?

A. I did.

Q. And you sent them the notice letters that we identified in Exhibit 17 giving them notice of the application and what Hilcorp was proposing?

A. Yes. Sure did.

Q. And in each of those cases, did you receive any indication -- notification from the post office that your certified mailings were undeliverable?

A. No, I have not.

Q. So for the cases you're responsible for, there were no notices of undeliverability?

A. That's correct.

Q. And the only offsetting spacing unit that's not operated by Hilcorp was that one by BP, correct?

A. That's correct.

Q. So for every other case, it was always the case that offsets were operated by Hilcorp and you were noticing the working interest owners?

A. That's correct.

Q. And that's the same procedure that you understand that the Division had approved and required for the prior cases in which they approved the increase well-density exceptions for the Blanco-Mesaverde special pool rules?

A. Yes.

Q. In your opinion, in every case for which you undertook identifying the affected parties, did you undertake a good-faith effort to identify all the affected parties?

A. I did.

Q. And have you received any objections from any party that you notified in this case or any of the cases you were responsible for identifying the notice parties?

A. I have not.

Q. I think that's all I needed to address.

MR. RANKIN: Mr. Examiner, for Case Numbers 15938, 15940 through 15945, I would move the admission of Exhibits 15, 16 and 17 into the record. And I would just point out those are the same -- same sequence and format for each of the cases I just identified and

consistent for each of those cases. The only difference is that Case Number 15942 has an Exhibit 17A, which is the letter that we received -- email from BP.

EXAMINER JONES: From BP.

MR. RANKIN: Yeah otherwise the same sequence in numbering is the same for each of those cases.

EXAMINER JONES: Okay. So Exhibit Numbers 15, 16 and 17 are admitted for Cases 15938, 15940, 41, 42, 43, 44 and 45.

MR. RANKIN: That's right.

EXAMINER JONES: So you're responsible for seven cases --

THE WITNESS: Yes, sir.

EXAMINER JONES: -- not 11.

(Hilcorp Energy Co. Exhibit Numbers 15, 16 and 17 in Cases 15938 and 15940 through 15945 are offered and admitted into evidence.)

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. Did you talk to these people besides just getting that letter back from BP? Did you have conversations with people about whether they would object to this kind of infill drilling or not?

A. No. The only people -- the only company I had any contact with was the email to Craig Ferguson at BP.

Q. Okay. Okay. Yeah. I can guess as -- from an engineering background, I can guess because reservoir pressure or the production life of the history of the pool has moved forward, then the concern over increased density has lessened between operators. So I was concerned -- I was wondering whether you had that -- you had -- you or anybody else in the company had talked to -- and, unfortunately, I forgot to ask the geologist and the engineer about that. But it's logical that that would be probably less of a concern now than it was originally when everybody was very concerned about playing by the same rules and having the same number of wells.

MR. RANKIN: Yeah. I think, looking at the orders, over time, the cases have -- there was a concern about having the same number of wells, and it seems to be the case over time. As I understand the difference in the geology between the different areas, that concern has been lessened, it seems.

EXAMINER JONES: Seems like because of the -- the same logic seems to apply with the downhole commingling, that -- you know, it used to be almost forboden to do that and then to have these packers

between zones and do the fresh packer test, and then all -- then it became: Let's just pull all the packers and put in all -- (laughter). So --so -- and those were different interests between owners also.

CROSS-EXAMINATION

BY EXAMINER WADE:

Q. And I apologize, but can you walk me through Exhibit 17 only? And I understand the (A) portion of it. I think I missed the earlier.

A. Sure. The first page on 17 is the list of all the working interest owners within the Mesaverde participating area inside the federal unit with the wells located or that is surrounding.

BP, on that one page for the 15942, they're highlighted in bold because they are also the offset operator. So they are noticed as a working interest partner and also as the offset operator.

Q. Okay. And I understand the letter to the working interest owners, the offset operator, which is BP.

A. BP.

Q. And then there is a list after that. It looks like a certified mail tracking list; is that correct?

A. That's correct. So instead of getting the physical green cards back, the USPS now dumps all the

data into the Internet, and we can go out, pull our data and actually see when the letter was delivered. So we do not actually receive the physical green cards anymore.

Q. Okay. So when it says "signature pending," you might have a signature, but unless you got the electronic information --

A. We can -- I believe there is a spot somewhere in the system where you can actually see the signature, but we don't actually pull that data. We just know that if it says "delivered," we know that somebody received it at that address.

Q. I see a couple that don't say "delivered."

A. Correct. Some of them are pending delivery. They have not been sent back to Hilcorp.

Q. So they're saying that they are undeliverable?

A. Right. We have not received any of those.

Q. So we just don't know what the status is?

A. Correct.

MR. RANKIN: If I might, I think this may help a little bit, Mr. Examiner.

REDIRECT EXAMINATION

BY MR. RANKIN:

Q. The basis for these addresses -- these are all working interest owners in the units, correct?

A. Correct.

Q. So these are the addresses that are on record for payments and so forth. So these are all updated, valid addresses for each of the working interests in each of the units?

A. Correct. We update addresses in our system as soon as we are notified by the working interest owner that their address changed.

Q. Right.

So there is no reason that any of addresses would be invalid or incorrect because they're based on, basically, your working pay decks, correct?

A. That's correct.

Q. But sometimes is there a lag between when the post office gets the green cards back and when they're updated on the tracking sheet, as you understand?

A. It should be pretty automatic. As soon as it's signed for, it should be dumped into the system.

EXAMINER WADE: I guess this would be kind of a question for you (indicating) as an aside, since I haven't been doing these hearings lately. Is this what is presented in the -- for notice at this point? The post office has changed over to this system?

MR. RANKIN: I think it depends. We ourselves didn't do the notice. Hilcorp did. And when

we're doing the green card notifications, we still will get them back, but they take a long time to return to us through the mail, and sometimes it can be two, three weeks from the time they're signed for to the time we get them back. So I anticipate that this may be a more updated, faster system.

MR. FELDEWERT: I think, to answer your question, if you'll recall when we were doing those big units up in San Juan, we had thousands of people that, instead of having green cards, there was this thick sheets like this. Yes.

EXAMINER WADE: And I'll have to think this one through, but the only difference that I see between the presentation done for notice is that your firm would have a signed affidavit --

MR. RANKIN: Right.

EXAMINER WADE: -- which may be appropriate in this case.

MR. RANKIN: Well, we didn't do the notice.

EXAMINER WADE: Right. I'm not saying you, just an affidavit of sort.

MR. FELDEWERT: Well, I would suggest, Mr. Examiner, these are certified as self-authenticating. These are government -- these are certified mail tracking and digital retrieval sheets

issued by the agency that does the certified mailing.

EXAMINER WADE: Yeah. I don't have a question that the information on this particular exhibit is inaccurate. It's the implication on some of it where you're missing signatures.

MR. FELDEWERT: Yeah. And that's where I think it's important. Unlike pooling cases, what we have here is a circumstance where we are communicating with working interest owners, okay, who we have regular contact with as a unit operator, who get paid on a monthly basis and are billed on a monthly basis, have the same addresses. So there should be no question that these are valid addresses.

Now, maybe they haven't picked up the certified mailing yet and signed for it. But in terms of the addresses that are used, there should be no question that these are valid addresses for purposes of mail.

MR. RANKIN: I think, to address your question about the affidavit, you know, the reason our office will provide an affidavit is because we were the ones that have done and filed the notice procedure as opposed to the testifying witness. So we provide an affidavit to indicate we were the ones who did it. In this instance, we have a live witness who is testifying

that she went through that process and procedure.

EXAMINER WADE: Okay. And then the only -- because I haven't done these in a while, what's the time limit applicable? These were sent on the 20th. Today is the -- 12th --

MR. FELDEWERT: 20 days. 20 days. They're subject to the same 20-day rule.

EXAMINER WADE: All right. I don't have any other questions for now.

EXAMINER McMILLAN: I don't have any questions.

EXAMINER JONES: Thank you.

MR. RANKIN: So that leaves a few more cases for notice purpose. I'd like to call our last witness, Mr. Brad Pearson, to run through those.

BRADLEY W. PEARSON,

after having been previously sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Pearson, would you please state your full name for the record?

A. Bradley W. Pearson.

Q. And by whom are you employed?

A. Hilcorp Energy Company.

Q. And what is your job duty with Hilcorp?

A. All duties of a subsurface landman.

Q. Okay. Have you had the opportunity to come to New Mexico and testify before the Oil Conservation Division?

A. I have not.

Q. Would you please review for the Examiners your educational background first?

A. I graduated in 2015 from Texas Tech University with a Bachelor of Business Administration in Energy Commerce, and in 2016, with a Master's in Finance from Texas Tech University.

Q. And in your role as a -- as a landman with Hilcorp, what sort of duties do you do? What does your job duty entail?

A. I research private and public records for record title ownership, and I negotiate and draft and amend oil and gas agreements and proposals.

Q. And are you a member of any professional associations, or do you have any professional certifications?

A. I'm a member of the American Association of Petroleum Landmen.

Q. And are you familiar with the applications filed in these 11 cases?

A. I am.

Q. And you had certain obligations where you oversaw a certain number of these cases in detail?

A. Yes, I did.

Q. And are those Case Numbers 15934, 15936, 15937 and 15939?

A. That's correct.

Q. And are you familiar with the status of the lands in each of those cases I just recited?

A. Yes, I am.

MR. RANKIN: Mr. Examiner, I would tender Mr. Pearson as an expert in petroleum land matters.

EXAMINER JONES: He is so qualified.

MR. RANKIN: Thank you very much.

Q. (BY MR. RANKIN) Mr. Pearson, I just recited some of the cases you were responsible for, but I think we should pick out one of the ones that's more interesting. So will you please turn to in your exhibit binder Case Number 15937. I'll give everybody a moment to get there.

So looking at Exhibit 16 in that case, 15937, will you please review for the Examiners what this exhibit shows?

A. Yes. This is the spacing unit, outlined in green, of the San Juan 28-6 Unit 136F, and outlined in

red is the half-mile buffer for all the affected offset spacing units.

Q. So effectively the area outlined in red is essentially the notice area. You noticed all the 320-acre spacing units within that area outlined in red?

A. That's correct.

Q. So you identified, in your land work, each of the working interest owners because Hilcorp is the operator of each of those offsetting spacing units?

A. That's correct.

Q. And the list of the working interest owners that you identified is on the next exhibit, 17, is that right --

A. Yes.

Q. -- for this case?

And each of those working interest owners were given notification of Hilcorp's applications and what it proposed?

A. Correct.

Q. And the next page is a copy of that letter that you sent out, Hilcorp, to each of those parties you identified?

A. Yes.

Q. And then the next page is that postal service tracking issue, which indicates that you sent out notice

letters to each of those working interest owners on December 20th of 2017?

A. Correct.

Q. And did you receive any of those notice packets as undeliverable?

A. I did not.

Q. Okay. And as the Examiner pointed out, some of those indicate that the signature is still pending; is that right?

A. Correct.

Q. But as before, these interest owners were identified through Hilcorp's business records as working interest owners who receive frequent payments and chip [sic] statements, of that nature?

A. That's correct.

Q. And so these addresses are updated in the normal course of business by notification for each of these parties?

A. Correct.

Q. Now, with respect to each of the cases that you had responsibility for, Case Numbers 15934, 15936, 15937, 15939, did you follow the same notice procedure with respect to each of those cases?

A. I did.

Q. You identified the working interest owners in

each of the offsetting 320-acre spacing units around the subject spacing units?

A. I did.

Q. And in every case that I just recited, was Hilcorp the offsetting operator?

A. Yes, it is.

Q. So you went down the next level to the working interest owners?

A. Correct.

Q. And in any of those cases that I recited, did you receive any notice that your notice packets were undeliverable to any of those parties?

A. I did not.

Q. And to each of the cases that I recited, you undertook a good-faith effort to identify all those working interest owners and all the offsetting spacing units?

A. I did.

Q. And you didn't receive an objection from any of the parties you noticed at any time for any of the cases I listed?

A. I did not.

Q. And none of the application packets were returned undeliverable for any of those cases?

A. That's correct.

Q. I think I asked that question.

MR. FELDEWERT: You did.

MR. RANKIN: With that, Mr. Examiner, I would tender the admission of Exhibits 15, 16 and 17.

EXAMINER JONES: For those four cases?

MR. RANKIN: For those four cases.

EXAMINER JONES: Exhibits 15, 16, 17 are admitted in Cases 15934, 936, 937 and 939.

(Hilcorp Energy Co. Exhibit Numbers 15, 16 and 17 in Case Numbers 15934 and 15936, 15937 and 15939 are offered and admitted into evidence.)

MR. RANKIN: With that, I would pass the witness.

CROSS-EXAMINATION

BY EXAMINER WADE:

Q. So in Exhibit 17, back to that transit [sic] list, what is "remind to schedule redelivery"?

A. Well, we haven't received the undeliverable. So in this case, it's still pending.

MR. RANKIN: Which row is that?

EXAMINER WADE: Five.

MR. RANKIN: Row five.

MR. FELDEWERT: Second from the bottom.

Q. (BY EXAMINER WADE) So the second up on the far

right, "unable to deliver"?

A. "Reminder to reschedule delivery of your item"?

Q. No. The second from the bottom on the far right.

MR. RANKIN: The first page of the tracking sheet?

EXAMINER WADE: Second page. Sorry.

MR. RANKIN: All right. It indicates -- yeah. It says --

EXAMINER WADE: So there is at least one, right?

MR. FELDEWERT: That's what it looks like.

THE WITNESS: We haven't received any undeliverables at this point.

EXAMINER WADE: How about the ninth one up on the far right on that same page, "departed USPS January 8th."

MR. RANKIN: Well, it was sent -- it was mailed on 12/20.

EXAMINER WADE: But it doesn't say "delivered" or "in transit."

MR. RANKIN: No. And to address your question, Mr. Examiner, I guess that would be an issue with the postal service, but it was mailed -- it was certified mailed on the 20th, you know.

EXAMINER WADE: So you don't see a notice issue there?

MR. RANKIN: Well, the rule requires that we provide notice by certified mail, you know, in advance of the hearing, 20 days. That's what was done based on the postal service data.

EXAMINER JONES: And the actual addresses are from the pay decks or the pay records?

MR. RANKIN: Yeah. 500 Marquette is a big building. I definitely know where that is.

EXAMINER JONES: These are all working interest owners.

MR. RANKIN: Yeah. Yeah.

EXAMINER JONES: The pay records, are they sent directly into somebody's bank? Is that how they're done? You don't mail checks out, right?

THE WITNESS: Correct. It's all done by direct deposit now.

EXAMINER JONES: Direct deposit. So that means addresses might sometimes get lapsed a little bit.

REDIRECT EXAMINATION

BY MR. RANKIN:

Q. The JIBs are by -- Mr. Pearson, the JIBs would be by hard copy, by mail; is that right?

A. Correct.

Q. And by JIB, I mean a joint interest billing statement?

A. Correct.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. That's if you ask them to pay the operator back for work done, right?

A. Right.

Q. So those have to be -- those should be up to date, those JIB addresses?

A. Correct.

Q. If not, they're continuously being worked on, I guess.

A. (Indicating.)

EXAMINER JONES: The rules in this case require notice to be provided. Does it require certified receipt, because some of the stuff that we actually do administratively, we don't get a receipt back. We don't wait for the receipt. We say provide notice. But if you provide notice to the wrong address and it's a record here of the wrong address, then it's not provided.

EXAMINER McMILLAN: The problem is you get JIBs over the Internet. And the address may be wrong, and they may be paying anyway. That's the problem,

because I've gotten one that I'm not sure if the address is correct, but my email is correct.

EXAMINER WADE: Well, I mean without -- without going through every single notice here, we have a problem with at least one.

MR. FELDEWERT: I'm with you on one. Yeah.

MR. RANKIN: I think what we can propose, and, you know, if this would -- with the one you've identified, we could supplement the Division by following up with that one working interest owner to identify the correct address, if this is not the correct address. That would be one.

EXAMINER WADE: And notice?

MR. RANKIN: And notice, right.

EXAMINER WADE: So maybe a more thorough going-through each of these cases again to make sure there are no other mistakes like that?

MR. FELDEWERT: Yeah. I think -- I agree with your observation that this particular case I need to deliver proper address. Okay. It raises some question. So it seems to me that if you have similar circumstances, we probably should follow up.

EXAMINER WADE: Just to go through these.

Now, to address the -- can you address, again, the idea that notice needs to be sent but not

necessarily received? Can you point to that portion of the rule in particular?

MR. FELDEWERT: Yes, I can. And let's think about this for a minute from a conceptual standpoint. I think we all know that there are people out there that we send certified mail to and they do not pick up. Okay? So it's not received. It is: Have you sent to a valid address of record? That's the obligation, and it's to be by certified mail. Beyond that, it's out of our control as to whether they pick it up, as to whether USPS delivers it and when they get around to delivering it. The Division set the best system possible. So we're always worked within that confines.

EXAMINER WADE: Well, what I'm looking at, at least part of the rule, is 19.15.4.12. That's notice for specific adjudications.

MR. RANKIN: The Division has followed the encroachment procedure notice requirements for unorthodox well locations in the prior cases, with the exception that they've noticed the entire surrounding 320-acre spacing unit. It's not just the spacing unit administrator that the proposed well encroaches. It's noticing every well in the surrounding 320 acres. So I think Mike may be looking up the --

EXAMINER WADE: Yes. I understand the concept. Give me the rule to hang my hat on.

MR. FELDEWERT: .4.12, right.

EXAMINER WADE: 4.12.

MR. FELDEWERT: Go to B. Type in "content of notice." I'm looking at the first full sentence.

EXAMINER WADE: 4.12(B).

MR. FELDEWERT: B, as in boy. Type in "content of notice," the heading.

EXAMINER WADE: Ah.

MR. FELDEWERT: "The applicant shall."

EXAMINER WADE: All right. "When an applicant has been unable to locate persons entitled to notice." Now, I'm hearing you haven't gotten an affirmative "not able to locate," and but there are question marks, right?

MR. FELDEWERT: Well, they're the working interest owners who we locate almost monthly.

EXAMINER WADE: So it sounds like it's very likely they're going to be locatable.

MR. FELDEWERT: We have located them. We have an address. And our obligation is to send that by certified mail to the last known address. That's our obligation. With the exception of this one -- I agree with this one. This notation seems to indicate it may

not be a valid address.

EXAMINER WADE: So let's just take a step back and just focus on that one. What would you propose to do for this one or potential others?

MR. FELDEWERT: What I would propose to do on a notation like that, for that particular case, give us a period of time to investigate this, because nobody noticed it before now. Investigate this, ascertain what the status is of that particular notice, okay, and that particular address, and then inform the Division whether this case, this case 14937, needs to be continued for two weeks to address this particular issue.

EXAMINER WADE: I have a little more concern on that. Unless I want to dig through every one of these right now at this hearing, we don't know if other mistakes have been made. So it would be better if all the cases were addressed, just see if there is any other notice.

MR. FELDEWERT: We'll commit that we will go through all the sheets to see if there is a similar notation and deal with it in the same fashion, if that works for you.

EXAMINER WADE: Yeah. And then that would give me a little bit of time to think about this issue. I understand the arguments regarding some of these

things that have not come back, and maybe in the meantime, we'll have some updated information.

MR. RANKIN: Yeah. I understand.

MR. FELDEWERT: Okay.

EXAMINER WADE: That's all I have.

EXAMINER JONES: So those were the last four cases. First there were seven and this four. That's 11. And one got continued. And there's a whole bunch more coming on the next docket, on February the 8th, I saw.

MR. RANKIN: Yeah. Right. So there were three that were continued to the 25th. And we're in discussions about whether we'll proceed with that hearing on the 25th or just put them all together on the 8th. So there will be 13 on the 8th, in which case we will do a very similar procedure as this.

EXAMINER JONES: Similar deal.

MR. FELDEWERT: Maybe we could go off the record and talk about what we're going to do on February 8th.

MR. RANKIN: With that request, Mr. Examiners, we ask you take these cases under advisement while we -- take it under advisement while we investigate the notice issues for each of the cases.

EXAMINER JONES: With the provision that --

EXAMINER WADE: Yeah. I don't see a problem. If there is going to be a problem later on down the road, we'll just re-open the case.

MR. RANKIN: Right.

EXAMINER JONES: Okay. Let's take it under advisement, and then we'll go off the record.

You guys okay with that, these cases, take them under advisement right now?

EXAMINER WADE: Yes.

EXAMINER JONES: Okay. We're going to take Cases 15934 and 15936 through 15945 under advisement.

Thank you-all, and let's go off the record.

(Case Numbers 15934 and 15936 through 15945 conclude, 4:35 p.m.)

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

CERTIFICATE OF COURT REPORTER

I, MARY C. HANKINS, Certified Court Reporter, New Mexico Certified Court Reporter No. 20, and Registered Professional Reporter, do hereby certify that I reported the foregoing proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings that were reduced to printed form by me to the best of my ability.

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

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

DATED THIS 26th day of January 2018.

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