| 1 | STATE OF NEW MEXICO |
| :---: | :---: |
| 2 | ENERGY, MINERAL AND NATURAL RESOURCES DEPARTMENT |
| 3 | OIL CONSERVATION DIVISION |
| 4 |  |
| 5 | IN THE MATTER OF THE HEARING |
| 6 | CALLED BY THE OIL CONSERVATION |
| 7 | DIVISION FOR THE PURPOSE OF |
| 8 | CONSIDERING: |
| 9 | Case Nos. 21361, 21362, 21363, |
| 10 | 21364, 21489, 21490, 21491, |
| 11 | 21393, 21394, 22947, 22845, |
| 12 | 23318, 23319, 23320, 23321, |
| 13 | 23020, 23021, 23022, 23023, |
| 14 | 23024, 23025, 23677, 23678, |
| 15 | 21568, 21572, 22653, 23738, |
| 16 | 23739, 23762, 23763, 23765, |
| 17 | 23766, 23767, 23664, 23665, |
| 18 | 23666, 23667, 23668, 23669, |
| 19 | 23698, 23699, 23700, 23701, |
| 20 | 23702, 23703, 23704, 23705, |
| 21 | 22917, 23670, 23671, 22700, |
| 22 | 23248, 23249, 23250, 23251, |
| 23 | 23252, 23253, 23475, 23477, |
| 24 | 23365, 23366, 23688, 23689, |
| 25 | 23690, 23691 |
|  | Page 1 |


| 1 | A P P E A R A N C E S |
| :---: | :---: |
| 2 | ON BEHALF OF MEWBOURNE OIL COMPANY: |
| 3 | DANA HARDY, ESQUIRE (by videoconference) |
| 4 | Hinkle Shanor LLP |
| 5 | P.O. Box 0268 |
| 6 | Santa FE, NM 87504 |
| 7 | JIM BRUCE, ESQUIRE (by videoconference) |
| 8 | James Bruce, Attorney at Law |
| 9 | P.O. Box 1056 |
| 10 | Santa Fe, NM 87504 |
| 11 | jamesbruc@aol.com |
| 12 |  |
| 13 | ON BEHALF OF MATADOR PRODUCTION COMPANY: |
| 14 | DARIN SAVAGE, ESQUIRE (by videoconference) |
| 15 | Abadie \& Schill |
| 16 | 214 McKenzie Street |
| 17 | Santa Fe, NM 87501 |
| 18 |  |
| 19 | ON BEHALF OF COTERRA [PH] ENERGY AND CIMAREX [PH] |
| 20 | ENERGY COMPANY: |
| 21 | DARIN SAVAGE, ESQUIRE (by videoconference) |
| 22 | Abadie \& Schill |
| 23 | 214 McKenzie Street |
| 24 | Santa Fe, NM 87501 |
| 25 |  |
|  | Page 3 |




| 1 | A P P E A R A N C E S (Cont'd) |
| :---: | :---: |
| 2 | ON BEHALF OF COLGATE OPERATING: |
| 3 | SHARON SHAHEEN, ESQUIRE (by videoconference) |
| 4 | Montgomery \& Andrews Law Firm |
| 5 | 325 Paseo De Peralta |
| 6 | Santa Fe, NM 87501 |
| 7 | ADAM RANKIN, ESQUIRE (by videoconference) |
| 8 | Holland and Hart |
| 9 | 110 North Guadalupe, Suite 1 |
| 10 | Santa Fe, NM 87501 |
| 11 |  |
| 12 | ON BEHALF OF APPLICANT FOR EARTHSTONE OPERATING, LLC: |
| 13 | MATTHEW BECK, ESQUIRE (by videoconference) |
| 14 | Peifer, Hanson, Mullins \& Baker, P.A. |
| 15 | P.O. Box 25245 |
| 16 | Albuquerque, NM 87125-5245 |
| 17 |  |
| 18 | ON BEHALF OF GREYHOUND [PH] RESOURCES COMPANY: |
| 19 | MICHAEL FELDEWERT, ESQUIRE (by videoconference) |
| 20 | Holland and Hart |
| 21 | 110 North Guadalupe, Suite 1 |
| 22 | Santa Fe, NM 87501 |
| 23 |  |
| 24 |  |
| 25 |  |
|  | Page 6 |


| 1 | A P P E A R A N C E S (Cont'd) |
| :---: | :---: |
| 2 | ON BEHALF OF EOG RESOURCES: |
| 3 | EARNEST L. PADILLA, ESQUIRE (by videoconference) |
| 4 | Padilla Law Firm, P.A. |
| 5 | 1512 South St. Francis Drive |
| 6 | Santa Fe, NM 87505 |
| 7 | JORDAN KESSLER, ESQUIRE (by videoconference) |
| 8 | Jordan L. Kessler |
| 9 | 125 Lincoln Avenue, Suite 213 |
| 10 | Santa Fe, New Mexico 87501 |
| 11 | jordan_kessler@eogresources.com |
| 12 | (432) 488-6108 |
| 13 | MICHAEL FELDEWERT, ESQUIRE (by videoconference) |
| 14 | Holland and Hart |
| 15 | 110 North Guadalupe, Suite 1 |
| 16 | Santa Fe, NM 87501 |
| 17 |  |
| 18 | ON BEHALF OF COG OPERATING AND CONOCO PHILLIPS: |
| 19 | ELIZABETH RYAN, ESQUIRE (by videoconference) |
| 20 | ConocoPhillips |
| 21 | 1048 Paseo de Peralta |
| 22 | Santa Fe, New Mexico 87501 |
| 23 | beth.ryan@conocophillips.com |
| 24 | (505) 780-8000 |
| 25 |  |
|  | Page 7 |

A P P E A R A N C E $S$ (Cont'd)
ON BEHALF OF BTA OIL PRODUCERS, LLC EARTHSTONE OPERATING:

DANA HARDY, ESQUIRE (by videoconference)
Hinkle Shanor LLP
P.O. Box 0268

Santa FE, NM 87504

ON BEHALF OF MARATHON OIL PERMIAN, LLC:
DEANNA BENNETT, ESQUIRE (by videoconference)
Modrall Sperling Roehl Harris \& Sisk PA
500 4th Street, NW, Suite 1000
Albuquerque, NM 87102

ON BEHALF OF XTO ENERGY, INC.:
MICHAEL FELDEWERT, ESQUIRE (by videoconference)
Holland and Hart
110 North Guadalupe, Suite 1
Santa Fe, NM 87501

Page 8

1

A P P E A R A N C E $S$ (Cont'd)
ON BEHALF OF NORTHERN OIL AND GAS: BLAKE JONES, ESQUIRE (by videoconference) Steptoe \& Johnson PLLC

1780 Hughes Landing Boulevard, Suite 750 The Woodlands, TX 77380
blake.jones@steptoe-johnson.com
(281) 203-5730

ALSO PRESENT:
Leonard Lowe, Technical Examiner (by videoconference) Marlene Salvidrez, Host (by videoconference) Sheila Apodaca, OCD Law Clerk (by videoconference)



| 1 | E X H I B I T S |  |  |
| :---: | :---: | :---: | :---: |
| 2 | NO. | DESCRIPTION | ID/EVD |
| 3 | Case 23665: |  |  |
| 4 | Exhibit A3 | Tracked Ownership and Pooled |  |
| 5 |  | Parties | 58/59 |
| 6 | Exhibit C | Notice Information | 58/59 |
| 7 |  |  |  |
| 8 | NO. | DESCRIPTION | ID/EVD |
| 9 | Case 23689: |  |  |
| 10 | Exhibit 1 | Application and Proposed |  |
| 11 |  | Notice | $69 /$ |
| 12 | Exhibit 2 | Landman's Affidavit | $69 /$ |
| 13 | Exhibit 2C | List of Interest Owners | $69 /$ |
| 14 | Exhibit 3 | Geologist and Plats and |  |
| 15 |  | Affidavit | $69 /$ |
| 16 | Exhibit 5 | Certified Notice Spreadsheet | $69 /$ |
| 17 | Exhibit 6 | Affidavit of Publication | $69 /$ |
| 18 | Exhibit 7 | Pooling Checklist | $69 /$ |
| 19 |  |  |  |
| 20 | NO. | DESCRIPTION | ID / EVD |
| 21 | Cases 23475, 23477, 23365, and 23366: |  |  |
| 22 | Exhibit 1 | Unidentified | 84/86 |
| 23 | Exhibit 2 | Unidentified | 84/86 |
| 24 | Exhibit 2-2 | Tract Ownership List | 84/86 |
| 25 | Exhibit 3 | Unidentified | 84/86 |
|  |  |  | age 12 |



| 1 |  | E X H I B I T S (Cont'd) |  |
| :---: | :---: | :---: | :---: |
| 2 | NO. | DESCRIPTION | ID/EVD |
| 3 | Exhibit B4 | Cross Section from A to A |  |
| 4 |  | Prime | 91/92 |
| 5 | Exhibit B5 | Wine Rack Display | 91/92 |
| 6 | Exhibit B6 | Depiction of Overall |  |
| 7 |  | Production Coming from Upper |  |
| 8 |  | and Lower Set North Wilson |  |
| 9 |  | Deep Unit Wells | 222/243 |
| 10 | Exhibit B7 | Proposed Mewbourne |  |
| 11 |  | Development Plan for 187 |  |
| 12 |  | Section Wells | 222/243 |
| 13 | Exhibit B8 | Offset Second Bone Spring |  |
| 14 |  | Well Performance | 224/243 |
| 15 | Exhibit B9 | Basin Well Proposed Example |  |
| 16 |  | One | 226/243 |
| 17 | Exhibit B10 | Spacing Well Performance |  |
| 18 |  | Exhibit 2 | 228/243 |
| 19 | Exhibit C | Amended Testimony of |  |
| 20 |  | Mr. Goree | 89/93 |
| 21 | Exhibit C1 | Unidentified | 89/93 |
| 22 | Exhibit C2 | Offset Drilling Data | 89/93 |
| 23 | Exhibit C3 | AFE Comparison Drilling |  |
| 24 |  | Intangibles and Tangibles | 89/93 |
| 25 | Exhibit C4 | Evaluation of AFE | 89/93 |
|  |  |  | age 14 |


| 1 |  | E X H I B I T S (Cont'd) |  |
| :---: | :---: | :---: | :---: |
| 2 | NO. | DESCRIPTION | ID/EVD |
| 3 | Exhibit D | Affirmation of Notice, |  |
| 4 |  | Matthew Beck | 93/94 |
| 5 | Exhibit D1 | Notice Letters | 93/94 |
| 6 | Exhibit D2 | Mailing List Receipts | 93/94 |
| 7 | Exhibit D3 | Affidavit of Publication | 93/94 |
| 8 | Exhibit D4 | Supplemental Letters and |  |
| 9 |  | Affidavits of Publication | 93/94 |
| 10 |  |  |  |
| 11 | NO. | DESCRIPTION | ID/EVD |
| 12 | Mewbourne: |  |  |
| 13 | Exhibit 10 | 12/1/20 Letter | $107 /$ |
| 14 | Exhibit 11 | Unidentified | 269/272 |
| 15 |  |  |  |
| 16 | Earthstone's: |  |  |
| 17 | Exhibit E | Email from Ms. Redfearn and |  |
| 18 |  | Earthstone | 182/182 |
| 19 |  |  |  |
| 20 | NO. | DESCRIPTION | ID/EVD |
| 21 | Exhibit 12 | First Bone Spring Sand |  |
| 22 |  | Formatting | 156/170 |
| 23 |  |  |  |
| 24 |  |  |  |
| 25 |  |  |  |
|  |  |  | Page 15 |



P R O C E E D I N G S
THE HEARING EXAMINER: -- 21st, 2023.
These are the hearings of the Oil Conservation Division. Do we have our court reporter present?

THE REPORTER: I'm here -- I'm here.
THE HEARING EXAMINER: Okay. Are you ready to start?

THE REPORTER: I'm ready.
THE HEARING EXAMINER: Okay. Let's call the first couple of cases, 21361, 21362, 21363, 21364 .

MS. HARDY: Good morning, Mr. Examiner.
Dana Hardy on behalf of Mewbourne Oil Company.
THE HEARING EXAMINER: Thank you,
Ms. Hardy.
And do we have the other interested parties or parties that have filed entries of appearance in this case -- these cases?

MS. BENNETT: Good morning, Mr. Examiner. Deanna Bennett on behalf of Apache.

THE HEARING EXAMINER: Good morning.
MR. SAVAGE: Good morning, Mr. Hearing
Examiner. Darin Savage on behalf of Matador
Production Company, who is the successor in interest to Ascent Energy.

THE HEARING EXAMINER: Thank you. Good morning.

MS. SHAHEEN: Good morning,
Mr. Examiner, everyone. Sharon Shaheen, Montgomery \& Andrews, on behalf of Colgate.

THE HEARING EXAMINER: Good morning.
Ms. Hardy, we're here for a status
conference on these four cases. How are we proceeding?

MS. HARDY: Mr. Examiner, that's correct. And these cases are actually consolidated for hearing with the next several cases on the docket.

THE HEARING EXAMINER: Okay.
MS. HARDY: I believe it's cases 1
through 9. There are --
THE HEARING EXAMINER: Okay.
MS. HARDY: -- applications by Apache and Ascent with Matador as the successor in interest.

THE HEARING EXAMINER: Before you continue, let me just announce those then, because I wasn't sure they were all connected.

So we're also hearing right now 21489, 21490, 21491, 21393, and 21394. And are there any other entries of appearance before we continue?

MS. KESSLER: Good morning,

MR. Chakalian, this is Jordan Kessler. I'm with EOG Resources. I believe that Mr. Padilla, Ernie [ph] Padilla, had entered an appearance for us, but since I haven't heard his name, I'll enter mine, as well. Jordan Kessler with EOG. Thank you.

THE HEARING EXAMINER: Good morning, Ms. Kessler. By these numbers, it indicates to me that these cases are almost three years old. Ms. Hardy? MS. HARDY: That's correct, Mr. Examiner. The parties have been negotiating a number of trades, and $I$ think due to the acreage involved and the number of parties, that's taken quite a while.

But it's my understanding that significant progress has been made, and the parties have discussed setting another status conference on November $16 t h$ if that's acceptable to the division.

And I believe we're optimistic that these matters could be completed by then.

THE HEARING EXAMINER: Okay.
Ms. Bennett, let me hear from you?
MS. BENNETT: Thank you. Apache is agreeable to another status conference on November 16th.

THE HEARING EXAMINER: Okay. What I was also looking for from you is the progress of negotiations. It has been almost three years since these cases have been filed, and I'm not sure that the division is the proper place for these cases to stay on hold.

So, Ms. Bennett, would you inform me why these cases should not be dismissed without prejudice, so that the parties can refile when they have finished their negotiations?

MS. BENNETT: Sure. And just to give a bit of background on -- I mean, I agree with everything that Ms. Hardy said. But part of the delay here was also due to COVID and a emergency -- like, a storm that happened in Houston.

So we have been working towards going to hearing on these cases in fits and spurts, but due to circumstances beyond our control the cases have been delayed a number of times.

And so that -- I did -- I'm not saying that's an excuse for why they're still on the docket, but that certainly has hampered or has caused some of the delay in moving the cases forward.

But we -- the parties are in discussions, and $I$ do think that keeping the cases on
the docket for now, anyway, does provide some touch points for us to come back before the division.

But of course if it's the division's preference to dismiss the cases without prejudice, then, you know, that's understandable too, given the length of the time of the cases being on the docket.

One thing I would note is in the past
when cases have been on the docket for, say, two or three years, the division has given the parties an opportunity to confer with their clients and then present a more formal status to the division.

And rather than, you know, dismissing the cases outright today, perhaps that's a process that the division could follow here, which is ordering the parties to prepare a more formal status update for the division and for the division's review, and then the division could make a decision at that point.

THE HEARING EXAMINER: So before I go to the other parties, when you say, "A more formal status," what does that mean?

MS. BENNETT: We have actually had to file something with the division that shows the status of the discussions between the parties.

And it wasn't something that said, you
know, "On June 25 th there was a call between the
parties," but it was a more formal filing that the division required, given the circumstances.

THE HEARING EXAMINER: Okay. All right. Thank you.

Ms. Hardy, I'll come back to you in a moment.

Mr. Savage?
MR. SAVAGE: Yes. Thank you.
Mr. Hearing Examiner, if you look at the file, you'll note that there's quite a number of pleadings on these cases, and they're rather complicated.

In fact, the status of them is that they are actually part of a de novo proceeding at the commission level. And they're really not -- the part that is to be reviewed at the division level is part of that de novo hearing at the OCC.

So it's rather, you know, complicated to just dismiss it at this point at the division level, given the direction of the commission.

But the recent acquisition by Matador of Ascent's interest, that was fairly recently, and that kind of opened up some new doors for some possibilities, and negotiation, and trade, and I think it would be useful to provide that a little bit more time to see if some fruition can come of that.

But these are -- you know, there was a lot of debate about how these should proceed, whether they even should be at the division and what should be at the division level.

So, you know, the division, I think, should take that into account when they make a decision.

THE HEARING EXAMINER: Mr. Savage, can you be more specific, since I'm new here? I'm not familiar with the commission case. Do you have a number, or a date, or something for me to refer to?

MR. SAVAGE: No. I can't remember the number off the top of my head. It seems like it was 24177, something along those --

THE HEARING EXAMINER: All right. Well, let me come back to you then. When you have the specific information on the commission case, I'd like to get it from you.

MR. SAVAGE: Yes. I will look for that real quick and provide that for you. Thank you.

THE HEARING EXAMINER: Thank you.
Let me hear from Ms. Shaheen.
MS. SHAHEEN: Thank you, Mr. Examiner.
Colgate is simply monitoring this in order to protect its interest and preserve its right to seek de novo
review. And at this time it has no objections to the way in which the applicants are proceeding.

THE HEARING EXAMINER: Okay. Thank
you, Ms. Shaheen.
Ms. Kessler?
MS. KESSLER: Thank you, Mr. Chakalian.
Like Ms. Shaheen -- virtual connectivity
interruption -- monitoring this case -- virtual
connectivity interruption -- to the division.
THE HEARING EXAMINER: Okay.
Ms. Kessler, you were very broken up. What I understood is that, like Ms. Shaheen, your client is just monitoring this.

MS. KESSLER: That's -- Mr. Examiner.
I'm finishing -- drop off, so I'll -- virtual
connectivity interruption --
THE HEARING EXAMINER: Not sure the court reporter is going to be able to get everything you said, Ms. Kessler, but I understand.

Ms. Hardy, I didn't ask you for your position on this.

MS. HARDY: Mr. Examiner, I agree with Ms. Bennett and Mr. Savage. I think that the status of these cases, really, to give you a little bit of a summary, is that there were hearings held on a sent
application. There was a de novo appeal to the commission.

The Mewbourne file competing
applications, and so did Apache. We sought to consolidate those new applications with the cases that were being heard in the commission.

The commission, instead of doing that, stayed the commission cases and asked the division to hear these other cases, and then they would be consolidated, the commission -- so it's been a long and complicated proceeding, and that's part of the reason for the delay.

And so the parties have been working over the past couple of years, really -- and this was impacted by COVID significantly -- to resolve all of the cases and come up with a comprehensive solution.

So that's what's going on. And I think it would be -- would conserve resources of the parties, really, and ultimately the division to just continue these cases for another status conference.

And we would be happy to provide another -- a formal response to explain the status of the negotiations, if that would be helpful.

THE HEARING EXAMINER: So, Ms. Hardy, that was very helpful, what you told me. When was
this hearing that was appealed?
MS. HARDY: The initial hearing at the division level on Ascent's applications, I believe, was in 2018.

THE HEARING EXAMINER: When you -- are you speaking of the two cases, 21393 and 21394?

MS. HARDY: No. It's the cases that are now on appeal for de novo hearing with the commission. And those are the case numbers that I'm hoping Mr. Savage can provide.

THE HEARING EXAMINER: Mr. Savage?
MR. SAVAGE: Yes. So to show you how convoluted this is, the original Ascent cases that were awarded operatorship were case numbers 16481 and 16482. Those were the cases that were appealed.

And I believe that was around 2018, as Ms. Hardy points out. The OCC -- the commission case numbers for those were assigned 21277 and 21278. And then Apache's commission, they -- Apache was the original opposing party in this matter. Mewbourne was not involved as a competing application.

And their OCC cases were assigned 21279 and 21280. Then a dispute arose between Ascent and Mewbourne. And so Mewbourne got involved and filed four cases. After the de novo hearing was accepted,
they filed four cases, and it became an issue of where those cases would fit.

And those cases are 21361 through 21364. And part of those cases covered the lands of the de novo hearing, and part of the cases cover lands outside the de novo hearing, and so Ascent, in order to cover the lands outside filed 21393 and 21394.

And then the division decided that everything should go back to the division -- be remanded back to the division for hearing at that level.

So the -- I mean, so we -- the de novo hearing and cases are still active. So, you know, the division dismisses these cases. They're still in the system, and they would have to be addressed in some matter, in some capacity.

THE HEARING EXAMINER: Okay. I understand. So, Mr. Savage, you mentioned commission cases 21277, 21278, 21279, and 21280. Are all four of those cases stayed?

MR. SAVAGE: Yes. All the commission cases are stayed.

THE HEARING EXAMINER: Waiting for the division to make a decision on all of these nine cases?

MR. SAVAGE: I believe that that is correct. I'm looking at the caption. I'm looking at the earlier captions on the pleadings, and that's all the cases that have been listed.

I can give you also orders -- there's orders of the commission that have been issued, and those fall into the range of $R-21454$. And then there's various orders, $A, B, C$, et cetera, addressing various --

THE HEARING EXAMINER: And, Mr. Savage, without getting into details, what are the parties -what are the issues that the -- what are the actual issues here?

MR. SAVAGE: Well, there's a number of issues, but you -- the parties were much more intransigent with Ascent as the competing party. But with Matador coming in, I think $I$ opened up the door for a lot more opportunity.

Matador is a much larger company, and there's some more opportunity on the table to resolve this. Ascent was a smaller company.

So I really think we're kind of in our last leg of this. And it is -- because procedurally it is very burdensome on the division.

But yeah. There's a number of issues

Page 28
that would be, you know, a laundry list to go through, but, you know, I wouldn't have -- I wouldn't know where to start at this point to --

THE HEARING EXAMINER: Okay. Well,
Mr. Savage, what I'm asking you is do you feel as though the parties will be able to negotiate all of the issues, so that a hearing won't be necessary on these competing compulsory pooling applications or are you thinking that there still will be some need for a hearing?

MR. SAVAGE: I am hopeful and I believe that these can be resolved. And I think it would be a matter of just finding the right solution with parties involved. And I think that would relieve a lot of headache for everybody involved, if that can come to fruition and be realized.

You know, that's all $I$ know at this point, because I'm not involved directly in those negotiations between those.

THE HEARING EXAMINER: I see. Okay. All right. Well, here's what I'm going to do. I'm going to order the parties to brief the issue on dismissal, whether $I$ have the authority to dismiss them. I believe I do.

But if that's wrong, then I'd like to
know why that's wrong. And I would like those briefs within two weeks. So I'm going to set a deadline for two weeks from today for any party that wishes to brief the issue to submit a brief to me.

And if you want to include a formal status, as recommended by Ms. Bennett, then I am -you know, that will be part of the record, of course, the formal status, but I'm not willing to set this for another status conference in November until I give it some serious thought.

I'm happy to help parties resolve the issue. I just don't feel the division is a receptacle for old cases. I understand that there was an issue with COVID. We all dealt with that, but life went on.

So is there anything left on these nine cases before we move on?

MR. PADILLA: Mr. Examiner, I'm Earnest L. [ph] Padilla appearing for EOG Resources. I had connectivity problems at the beginning of the hearing, but --

THE HEARING EXAMINER: Yes, Mr. Padilla.

MR. PADILLA: We're just monitoring these cases.

> THE HEARING EXAMINER: Thank you,

Mr. Padilla.
I don't hear anything else from any parties, so Marlene, do you have a date two weeks from today, so $I$ can put it in my notes?

MS. SALVIDREZ: It should be October 5th.

THE HEARING EXAMINER: I think you said
October 6th.
MS. SALVIDREZ: October 5th.
THE HEARING EXAMINER: October 5th. Okay. And, Marlene, would those briefs or formal status reports, would they come in through the portal?

MS. SALVIDREZ: Yes, they will need to come in through the portal for all nine cases.

THE HEARING EXAMINER: Fantastic.
Okay. We're going to move on. So I'm now calling 22947 and 22845. I believe those are -I'm not sure if those are together, so let me just call 22947.

MR. FELDEWERT: Good morning, Mr. Chakalian. Michael Feldewert with the Santa Fe Office of Holland \& Hart. I'm appearing on behalf of EOG Resources, Inc. And you are correct that the next case, 22845 , is related to the current matter.

THE HEARING EXAMINER: Thank you.

Are there any other parties here for those two cases?

MR. RODRIGUEZ: Good morning. Michael
Rodriguez with the applicant Tap Rock Operating, LLC in case number 22845. And also we entered an appearance on 22947, which is a competing --

THE HEARING EXAMINER: Good morning.
MS. BENNETT: Good morning, everyone.
Deanna Bennett from Modrall Sperling on behalf of Marathon Oil Permian in both cases.

THE HEARING EXAMINER: Good morning. Mr. Bruce, are you involved in this case, as well?

MR. BRUCE: Yes, sir, Mr. Examiner. I'm representing MRC Permian Company, both cases.

THE HEARING EXAMINER: Okay.
Mr. Rodriguez, these are -- well, one of these is your case. Is that correct?

MR. RODRIGUEZ: That's correct. It is case number 22845.

THE HEARING EXAMINER: Okay. Well, let's just talk about that case for the moment. I know they're related, but this -- we're here for a status conference. What's the status of this case?

MR. RODRIGUEZ: So Tap Rock and EOG
have been in production ongoing discussions. There have been several trade concepts that have been exchanged between the parties.

And believe Tap Rock and EOG are closer to striking a mutually-agreeable deal. Tap Rock is hopeful that the parties can resolve their differences in the near future and potentially avoid contestant hearing.

And as such, Tap Rock believes -- would
request a status conference be set sometime in December.

THE HEARING EXAMINER: In December?
MR. RODRIGUEZ: Yes. I think that
would be -- from Tap Rock's perspective, that should allow sufficient time to finalize the deal and hopefully either move forward with the uncontested hearing or dismiss these applications.

THE HEARING EXAMINER: And is 22947 and 22845, are they competing pooling applications?

MR. RODRIGUEZ: Yeah.
THE HEARING EXAMINER: They are competing?

So let's hear from -- Mr. Feldewert, are you representing the other application?

MR. FELDEWERT: Yes. I would be. I'm
representing EOG Resources in case 22947. And I agree with what Mr. Rodriguez has stated.

I also note that there has been a new party in the -- entered as appearance in the matter. That would be Civitas Permian [ph] Operating, which I think is going to have an influence on the ultimate outcome with these matters.

So to get things sorted out with respect to the new Civitas [ph] entry and how that impacts his, we agreed at a status conference on December 7th, makes sense.

THE HEARING EXAMINER: Okay.
Marlene, do we know of that entry of appearance from Civitas [ph]?

MS. SALVIDREZ: I would need to look in the file.

MR. FELDEWERT: I just looked, Marlene.
It was -- it's in the file for both cases.
THE HEARING EXAMINER: Thank you, Mr. Feldewert.

Okay. Marlene, do we have room on December 7th for another status conference on these two cases?

MS. SALVIDREZ: We do. And they can just file continuances, and just state on that
continuance that they would like another status conference.

THE HEARING EXAMINER: So,
Mr. Rodriguez, and Mr. Feldewert, we're not issuing scheduling orders.

And let me let everyone know that for things like this, we're not going to issue scheduling orders. We're going to issue prehearing orders, but not scheduling orders, so everyone is on notice.

MR. FELDEWERT: So let me just inquire, Mr. Chakalian, if I may. It sounds like all we need to do here and all of it is -- all we need to do is file our continuance for status conference. The division is not going to do anything other than put the case on a December 7th docket, I believe.

THE HEARING EXAMINER: That sounds correct.

Marlene, is that correct?
MS. SALVIDREZ: You are correct. You
just need to file continuances via the portal, and just state that you would like another status conference on December 7th.

THE HEARING EXAMINER: Mr. Rodriguez, when was this case filed?

MR. RODRIGUEZ: I believe the Tap Rock
case was filed in May of 2022. Yeah. And the EOG case in July or August of 2022.

THE HEARING EXAMINER: Thank you, sir. My preference is to keep cases moving along.

I understand that previous hearing examiners have different philosophies on older cases. I'm not saying a case that's been around for a year is an older case, but that is my preference, is to move these cases along.

So thank you for your input. I guess we will continue. If there's nothing else on these two cases, we can continue with the docket.

MR. RODRIGUEZ: Thank you.
THE HEARING EXAMINER: Thank you.
We're calling now 23677 and it looks like 23678.

MS. BENNETT: Good morning, Mr. Hearing
Examiner. Deanna Bennett from Modrall Sperling on behalf of Avant Operating, the applicant in these two cases.

THE HEARING EXAMINER: Thank you.
Do we have any other parties present?
MR. FELDEWERT: Good morning,
Mr. Chakalian. It's Michael Feldewert with Santa Fe Office of Holland \& Hart appearing on behalf of XTO

Energy, Inc.
THE HEARING EXAMINER: Good morning to
both of you. How are we doing with these two cases?
MR. FELDEWERT: We're still --
MS. BENNETT: -- I think there's one more entry of appearance.

MS. KESSLER:: Mr. Chakalian, if I may, Jordan Kessler on behalf of EOG Resources. Thank you.

THE HEARING EXAMINER: Thank you. I didn't see your entry. Thank you. And good morning.

So, Mr. Bennett, can you give me a status update on these cases?

MS. BENNETT: Yes. So Avant Operating filed these applications in June, and has been ready, and desires to go to hearing on these cases.

We were ready to go, and XTO filed a notice of objection to the cases proceeding by affidavit. And so that brings us to the status conference today.

And Avant wants to take these cases to hearing, wants to -- has some timing issues. These are on Avant's development plan in the near term.

And so Avant is interested in talking through today the possibility of how we can -- and I think this is consistent with what you were just
saying, Mr. Hearing Examiner -- how we can thread the needle, so to speak, to allow the parties some time to continue to engage in negotiations, because Avant is hopeful that it can work out any issues with XTO.

But at the same time, we don't want this lingering and having to come back before the division in a month, only to find that the next available contested hearing date is two months or three months out.

And so $I$ have kind of an unusual proposal for the division to consider, but I think I should wait maybe to make that proposal until after we hear from Mr. Feldewert on his views on whether -- on XTO's position and how, you know, if they think they can reach agreement with Avant in the near term, which might eliminate my need to come up with this interesting proposal.

THE HEARING EXAMINER: Thank you, Ms. Bennett.

Mr. Feldewert?
MR. FELDEWERT: Well, I'm very
interested in her interesting proposal. But, I mean, all $I$ know that there have been discussions about reaching an agreement.

I suggest they might want to -- if
they're confident that an agreement could be reached if they might want to drop XTO as a full party, but at this point there has not been an agreement.

So, you know, their choice is they either -- we either reach an agreement or they proceed to hearing. So that's kind of where things stand.

THE HEARING EXAMINER: So,
Mr. Feldewert, you filed an objection. What was the objection based on?

MR. FELDEWERT: The objection was based on the fact that the parties have not reached an agreement. I know that there's some discussions about potential agreement. I'm not privy to those discussions.

But in a circumstance where a party has not agreed to be pooled by affidavit, you file your objection, and then the division can set the matter for hearing if necessary.

THE HEARING EXAMINER: All right.
Ms. Kessler?
MS. KESSLER: Thank you, Mr. Hearing Examination. EOG is just monitoring this case, like the last one. So we don't have an opinion. Here to do whatever the division decides. Thank you.

THE HEARING EXAMINER: All right.

Thank you.
So back to you, Ms. Bennett. What is the creative suggestion?

MS. BENNETT: What I would like to suggest is another status conference on October 5th, which would allow Avant and XTO a couple more weeks to try to figure out how to resolve XTO's concerns.

And if those concerns are resolved by October 5th, then Avant would be able to proceed by affidavit.

But going back to my concern that on October 5 th if we were to come to the division, the next available contested hearing may be in December or January.

I would like to ask the division's thoughts on tentatively also scheduling these cases for a contested hearing on November $16 t h$, so that we don't find ourselves on this sort of unending trailing docket, so to speak.

THE HEARING EXAMINER: Okay. That makes sense.

MS. BENNETT: And I know that's an unusual request, but $I$ think it does make sense.

THE HEARING EXAMINER: Makes sense to me too unless Marlene doesn't like the idea.

Marlene, how do you feel about reserving time on November 16 th for a contested hearing, and setting this for an October 5th status conference?

MS. SALVIDREZ: So if we will set it for an October 5th status conference, those continuances will need to be filed today, so I can get the docket out. And November $16 t h$ sounds fine for a contested hearing.

THE HEARING EXAMINER: Okay. So it sounds like, Ms. Bennett, we're able to do that. But it sounds like you also have to file for a continuance, it sounded like.

MS. BENNETT: Yes. And we're prepared to do that today.

THE HEARING EXAMINER: Okay. So, Ms. Bennett, sounds like you got what you needed. We have an October 5 th status conference and a November 16 contested hearing.

So if, at the October 5th status conference, you've not reached a deal, there won't be any more continuances. We will have the contested hearing on November 16th.

MS. BENNETT: Sounds great to me.
THE HEARING EXAMINER: Okay.

Mr. Feldewert, is there anything else on this case?

MR. FELDEWERT: No, sir. Thank you. MS. BENNETT: Thanks very much.

THE HEARING EXAMINER: Thank you.
All right. Okay. So we're going down to -- looks like we have a hearing in 23664, 23665, BTA Oil Producers, in the Capitan Formation. Mr. Feldewert, are you ready to proceed?

MR. FELDEWERT: I am, except I'm wondering -- I think we were on the docket -- at least on the docket sheet, the next case would involve MRC. Case number 14. Or are we skipping around?

MS. SALVIDREZ: We should be on 14 and 15, cases 23738 and 23739.

THE HEARING EXAMINER: Okay. I see, Marlene. Okay. 23738. We're continued from September 7th. Oh, I see. Thank you.

So I'm calling 23738 and 39. MRC Permian.

MR. FELDEWERT: Good morning,
Mr. Chakalian. Michael Feldewert with the applicant, MRC Permian.

THE HEARING EXAMINER: Wonderful. So where are we in this hearing?

MR. FELDEWERT: Mr. Chakalian, if you recall back at your first hearing, I believe, had a discussion about this case -- these two cases. The problem MRC had was that newspaper publication -- not get into the paper until a day later than it needed to to be timely for the -- September 7th hearing.

So we continued the matter to allow that notice of publication to run and meet the deadline for the timeframe. And that was Exhibit F, as in Frank, to our original hearing package. That has now been accomplished, so notice -- has been perfected.

The other nice discussion we had with Mr. McClure was the pool that was involved for this matter. And you recall --

THE HEARING EXAMINER: Mr. Feldewert, hold on one second. Let me just look at my notes on this case. 23738 and 39. "Application filed. Continue to nine twenty-one. Secure notice and to amend checklist to pool." Okay. I'm with you now.

MR. FELDEWERT: So I'm on the second part of that now. And --

THE HEARING EXAMINER: Yes.
MR. FELDEWERT: -- the checklist to amend the pool. So what you'll see in the file for
each case is that on Tuesday we filed an amended compulsory pooling checklist, along with a cover pleading for that.

And that amended checklist now
identifies the new pool that the division identified for us, and provided the vertical extent of that pool, which was also provided by the division.

So with those filings, I believe we've done everything that was requested by the division, and all outstanding matters have been addressed. And so we would ask that these two cases be taken under advisement.

THE HEARING EXAMINER: Before I go to the technical examiner, I'm going to look on the imaging to see. 23738. Okay. Let me see what you filed here. So I have a filing here on the 19th. I have two filings, it looks like. Notice of Amended Co-Pooling Checklist. Okay.

And I do see page 3 of 5,4 of 5 , and 5 of 5, just a checklist. And then we have also here -that's not it. Okay. How does this filing satisfy the notice of hearing?

MR. FELDEWERT: It does not. The
Exhibit F with the original filing, the original hearing package, as the affidavit of publication by
the newspaper. So with the date of that publication reflected therein, the timeframe for that notice by newspaper to occur has now been complied with. THE HEARING EXAMINER: Okay. I understand.

Do we have our technical examiner with us?

MR. LOWE: Yes, sir. This is Leonard Lowe.

THE HEARING EXAMINER: Good morning, Mr. Lowe. Did you happen to take a look at the filing in this case correcting the checklist?

MR. LOWE: It appears that everything that was done, as far as naming of the pooling goes, is in accordance with what $I$ see so far.

But $I$ don't know the in-depth details of what Mr. McClure was looking into, as far as the notice issue was concerned. Haven't gotten that far yet. But the full indication seems to be updated.

But I got one question for you, Mr. Feldewert. The pool referenced in this situation here, was that brought up on OCD's end or was it a correction? Was it just a current name change to the pool name? Is that what happened here?

MR. FELDEWERT: Well, it was very
interesting, Mr. Lowe. My understanding is that the division was apprised of the -- I'm sorry -- MRC was initially apprised of the pool that was involved. Then the -- my understanding is that the division has now changed the pool for this particular area, and have identified a pool now that runs from the top of the first Bone Spring sand to the base of the second Bone Spring sand.

And so they provided us then --
Mr. McClure by email provided that information to me, both the name of the new pool, which you'll see on the compulsory pooling checklist, and then asked that we include the vertical extent covered by this pool in the compulsory pooling checklist on page 1.

MR. LOWE: Okay. And basically it was on OCD's side updating the pool references here.

MR. FELDEWERT: Yes. This all came from the OCD. Correct.

MR. LOWE: Okay. And I just need clarification on that. From what I see, it looks okay. I have yet to, like I said, go in depth on the notice issue.

Oh. So the notice issue portion, was that just a last catch-all for noticing in the newspaper to catch all the other interested parties
that pertain to this case?
MR. FELDEWERT: Yeah. I can't
remember. There was very few. I think it was only one or two, but therefore published by name in the newspaper.

But on September 7th, because of the Labor Day Holiday, a newspaper had not published the notice in time, so we had to continue the case for two weeks to allow that notice of publication to run the full period of time.

MR. LOWE: Okay. And in that notice, it is basically referenced if there's any inquiries on our -- any interested parties that want to partake in these cases to come to the OCD?

MR. FELDEWERT: Correct.
MR. LOWE: Okay.
MR. FELDEWERT: Provided all the usual information to give them the notice and the opportunity to be heard.

MR. LOWE: Okay. Those are the only questions $I$ have pertaining to this issue. Thank you, sir.

THE HEARING EXAMINER: Okay. Thank you, Mr. Lowe.

Is there any objection to taking these
under advisement at this point?
MS. BENNETT: Thank you.
THE HEARING EXAMINER: Mr. Lowe?
MR. LOWE: As far as I can see, it looks okay. I have to -- like I said, look into in-depth detail upon this. But I guess it would be okay to take it under advisement in the meantime.

And if we see any other issues or flaws, or if we -- once we look at it with Mr. McClure, then we can decide otherwise at that time.

But I think according to what Mr. Feldewert submitted, it looks okay to me so far.

THE HEARING EXAMINER: Okay. Thank you, Mr. Lowe.

So, Mr. Feldewert, we will take these cases under advisement at this point.

MR. FELDEWERT: Thank you, sir.
THE HEARING EXAMINER: Okay. We're going to move onto 23762, and 63, and 6 -- let's stop there.

Do we have Mr . Bruce?
MR. BRUCE: Yes, Mr. Examiner, representing Mewbourne.

THE HEARING EXAMINER: We continued
these from September 7th for issues with the -- let me look at my notes. But $I$ remember we had issues on these, as well. 23762 and 63. Okay -- yes.

But also, sir, it wasn't just to perfect the constructed notice, but also we were waiting for Exhibits 5 and 7 on both of these.

MR. BRUCE: And they've been filed. Yeah, they were filed, I think, over that following weekend.

THE HEARING EXAMINER: Oh, okay. Good. And that's what the deadline was, was that following Monday, close of business.

Marlene, do you have what you need filed now, so that we can take these under advisement?

MS. SALVIDREZ: So I don't keep track of what's been filed as far as exhibits. That's -- a technical examiner would need to --

THE HEARING EXAMINER: Oh, okay.
MS. SALVIDREZ: -- case file.
THE HEARING EXAMINER: Okay. Thank you.

Mr. Lowe, would you take a look at 23762 and 63, and see if you have now the exhibits you need?

MR. LOWE: Just, Mr. Bruce, the issues
here were basically you need to get a checklist in; correct?

MR. BRUCE: Yeah. I got the pooling checklist in. Filed -- like I said, I think I filed it on the weekend, either on Sunday or Monday following the hearing.

And then it was -- needed to let the publication notice period run, because it was not timely published. And that has been -- two weeks.

MR. LOWE: So there was two concerns here with a spreadsheet, and indicated affected interest owners.

MR. BRUCE: Yes.
MR. LOWE: And the pooling checklist for how many cases here? For all --

MR. BRUCE: Two.
MR. LOWE: Two --
MR. BRUCE: Oh. Well, two -- these two, and then the subsequent three cases, Mr. Lowe.

MR. LOWE: Okay. According to the last submittal, it looks like those two items were submitted. As far as comparing in detail to what was initially submitted and all the, you know, effective interested parties and so forth, I have yet to go into depth of that yet.

But according to what I see, those -that information is provided.

THE HEARING EXAMINER: Okay. So, Mr. Lowe, do you have any objection if we take these two cases, 23 -- well, let me go back to my other spreadsheet. I have too many open at a time. 23762 and 23763. I had that we needed Exhibits 5 and 7. It looks like Mr. Bruce filed Exhibits 6 and 7.

Mr. Bruce, why are they not labeled Exhibits 5 and 7? Instead you listed 6 and 7.

MR. BRUCE: One sec. Simple reason, typo.

THE HEARING EXAMINER: I see. So it really is Exhibits 5 and 7 you filed -- you mislabeled 5 and 6.

MR. BRUCE: Correct.
THE HEARING EXAMINER: Okay. Mr. Lowe, I hope that helps you --

MR. LOWE: It -- yeah.
THE HEARING EXAMINER: Mr. Lowe?
MR. LOWE: Yes, sir?
THE HEARING EXAMINER: Does that help you?

MR. LOWE: Yeah. I didn't -- all I know -- I'm looking at -- I see what Dean was looking
for, as far as the checklist and no spreadsheet. And as far as, you know, that information or that -- those details, I do have -- we do have. So looks good so far.

THE HEARING EXAMINER: Okay. So,
Mr. Lowe, according to my notes, they were missing Exhibits 5 and 7, plus the notice needed to be cured. The notice has been cured. And they filed Exhibits 5 and 7, but they called 5 Exhibit 6.

MR. LOWE: Yes.
THE HEARING EXAMINER: So is there anything preventing us from taking this under advisement at this point?

MR. LOWE: I don't think so, unless Dean has any concerns or issues here after hearing, you know, specific naming of them.

But as far as what the detailed information that we're requesting, it appears was provided.

THE HEARING EXAMINER: Okay. Then we're going to take these two cases under advisement, Mr. Bruce.

And we're going to move onto 23765, 6, and 7. And I believe these were the same problems. They were all of the same problems. Is that correct?

MR. BRUCE: That is correct. There's two things -- yeah. The certified notice spreadsheet and the pooling checklists were all filed over the weekend.

And then I also submitted a
recently-received certified green card. And if you would look at the certified notice spreadsheet, the only party that had not returned a green card was $B P$ America Production Company.

And that actually arrived at my P.O. box late last night. So $I$ was -- I am going to file that. It pertains to all three cases. And so the certified notice was accurate, and we no longer need the publication notice to be cured.

THE HEARING EXAMINER: I see.
I see Mr. Rankin turned his camera on.
Mr. Rankin?
MR. RANKIN: Good morning,
Mr. Examiner. Adam Rankin appearing in these cases on behalf of MRC Permian Company and Forhan [ph] Oil Company. No objections to the admission of the exhibits or the cases being taken under advisement.

THE HEARING EXAMINER: Okay. So very good. Thank you.

Mr. Bruce, I'm just looking at what you
filed for our last hearing. On the 11th we have Exhibit 4A, a recently-received certified green card. Exhibit 5, a certified notice spreadsheet. And Exhibit 7, a pooling checklist.

And that's for 23765. I haven't looked at 66 and 67 yet.

MR. BRUCE: Okay. They were filed for all three.

THE HEARING EXAMINER: Are you saying you filed the same document for all three?

MR. BRUCE: Yes, sir. Well --
THE HEARING EXAMINER: Okay. All right.

MR. BRUCE: Obviously the pooling checklist were different for each case.

THE HEARING EXAMINER: Okay. And is this the green card you were just talking about or you have yet another green card?

MR. BRUCE: No -- green card I received about two weeks ago, but after -- right after the hearing. And just last night when $I$ went to the post office I got the final green card.

And if you look at the spreadsheet, the only green card I had not gotten back was from BP America. And I've got that green card in my grimy
little meat hooks here, and I'm going to file it with the division just to show that certified notice.

THE HEARING EXAMINER: Okay. Mr. Lowe, do you have any questions from Mr. Bruce on these three consolidated cases?

MR. LOWE: Yeah.
I have a -- one question for you, Mr. Bruce. You just -- out on a recently-submitted checklist -- not checklist, but the spreadsheet. Which -- which green card did you get the last green card?

MR. BRUCE: BP America Production Company.

MR. LOWE: BP America Production Company. Would they be referenced in your latest list of interest owners?

MR. BRUCE: Yeah. That was -- they were in the list of interest owners for the -- in the landman's exhibit, Exhibit 2, which was submitted two weeks ago.

MR. LOWE: Okay. I have no more issues. I don't know questions within. Thank you.

THE HEARING EXAMINER: Okay.
Mr. Bruce, we're going to take these three cases under advisement and expect you to file the copy of the

| 1 | green card you just received last night. |
| :---: | :---: |
| 2 | MR. BRUCE: Thank you. |
| 3 | THE HEARING EXAMINER: And that green |
| 4 | card is from BP. |
| 5 | MR. BRUCE: Yes, sir. |
| 6 | THE HEARING EXAMINER: Very good. Is |
| 7 | there anything else on those three cases? |
| 8 | MR. BRUCE: No, sir. |
| 9 | THE HEARING EXAMINER: Okay. We're |
| 10 | going to move onto 23664, 23665, back to |
| 11 | Mr. Feldewert. |
| 12 | Sir, are you ready to proceed with the |
| 13 | hearing? |
| 14 | MR. FELDEWERT: Actually, I am |
| 15 | appearing for another party other than the |
| 16 | applicant -- Ms. Hardy is here for the applicant in |
| 17 | these two matters. |
| 18 | MS. HARDY: That's correct, |
| 19 | Mr. Examiner. |
| 20 | Dana Hardy with Hinkle Shanor on behalf |
| 21 | of BTA Oil Producers, LLC. |
| 22 | THE HEARING EXAMINER: Thank you. And |
| 23 | are you ready to proceed? |
| 24 | MS. HARDY: Yes, I am. |
| 25 | MR. FELDEWERT: And, Mr. Chakalian, |
|  | Page 56 |

just -- I'm sorry. Just for the record, I'm appearing on behalf of Greyhound [ph] Resources Company.

THE HEARING EXAMINER: Thank you. And are you objecting to proceeding by affidavit?

MR. FELDEWERT: No, sir.
THE HEARING EXAMINER: Okay. Very good.

So, Ms. Hardy?
MS. HARDY: Thank you. In case number 23664, BTA seeks an order pooling all and committed interest in the Pennsylvanian Shale formation underlying a 320-acre, more or less, standard horizontal space standard horizontal spacing unit comprised of the west half of sections 27 and 22 , Township 16 South, Range 36 east in Lea County.

That spacing unit will be dedicated to the Capitan $22301,27-22$ State Com 19 H well.

In case number 23665 , BTA seeks an order pooling interest also in the Pennsylvanian Shale underlying a 320 -acre standard horizontal spacing unit comprised of the west half -- I'm sorry -- the east half of the west half of sections 22 and 27, Township 16 South, Range 36 east.

That spacing unit will be dedicated to the Capitan 22301 27-22 State Com number 20 well.

Our exhibits include the affidavits of landman Adam Davenport and geologist David Childers. Mr. Davenport provides the standard land exhibits. The tracked ownership and pooled parties are shown in Exhibit A3.

And as you can see from that exhibit, BTA controls about an 85 percent interest in the unit, and we are only pooling the interest of two working interest parties and one overriding royalty interest.

Mr. Childers provides the standard geology exhibits, including a location map, structure map, gross isopach map, and cross section.

The notice information is included in Exhibit $C$ and its associated attachments. We received certified mail receipts from all but one party, and we did timely publish notice.

And with that, unless there are questions, $I$ request that the exhibits be accepted into the record and that these two cases be taken under advisement. Thank you.
(Exhibit A3 and Exhibit $C$ marked for identification.)

THE HEARING EXAMINER: Any objections, Mr. Feldewert?

MR. FELDEWERT: No, sir.

| 1 | THE HEARING EXAMINER: Then these |
| :---: | :---: |
| 2 | exhibits are admitted into evidence. |
| 3 | (Exhibit A3 and Exhibit $C$ were received |
| 4 | into evidence.) |
| 5 | Mr. Lowe, any questions on these two |
| 6 | cases? |
| 7 | MR. LOWE: I have a question, |
| 8 | Ms. Hardy. Good morning. |
| 9 | MS. HARDY: Good morning. |
| 10 | MR. LOWE: You just -- you're |
| 11 | consolidating 23664 and 23665. Is that what's going |
| 12 | on here? |
| 13 | MS. HARDY: That's correct. |
| 14 | MR. LOWE: Okay. And then which well |
| 15 | is for 23664? |
| 16 | MS. HARDY: 23664 is the -- should be |
| 17 | the $19 \mathrm{H}--\mathrm{let}$ me look at my -- yes. 23664 is the 19H |
| 18 | well. |
| 19 | MR. LOWE: Okay. The 23665 is the 20 |
| 20 | well. |
| 21 | MS. HARDY: Correct. |
| 22 | MR. LOWE: Okay. I just got confused |
| 23 | on what you verbalized earlier. I just heard a "20." |
| 24 | I -- I didn't understand which case was for which -- |
| 25 | and as far as the -- this is a compulsory -- a |
|  | Page 59 |

compulsory pooling case. They all basically hover over the same horizontal spacing unit; correct?

MS. HARDY: Collectively, the two applications pool the west half of these sections. So one is pooling the west half west half, and one is pulling the east half west half.

MR. LOWE: Okay. And then as far as the forced pooling portions of -- okay. They're almost the same or are they the same?

MS. HARDY: Well, there's a separate spacing unit for each well, but when you put the two applications together they pool the west half. But one of the wells is west half west half, and one is east half west half.

MR. LOWE: Okay. So I'm still looking through your exhibits for the 19 well right now. I think those are all -- the only questions $I$ have. Thank you, ma'am.

MS. HARDY: Thank you.
THE HEARING EXAMINER: Okay. So, Ms. Hardy, since there are no other questions and there's no objections, these cases will be taken under advisement by the division.

MS. HARDY: Thank you very much.
THE HEARING EXAMINER: Thank you.

Let's move onto 23670 and I think 23671. I think they are today.

MS. VANCE: Good morning, Mr. Hearing
Examiner. Paula Vance with the Santa Fe Office of Holland \& Hart on behalf of MRC Permian. And you are correct. Both of those cases go together. So yeah.

THE HEARING EXAMINER: Thank you, Ms. Vance. Good morning.

Do we also have -- do we have any other interested parties or other entries of appearance on these two cases? Okay.

MS. SHAHEEN: Good morning again,
Mr. Examiner. Good morning again. This is Sharoon Shaheen, Montgomery \& Andrews, on behalf of S.K. Warren Resources.

THE HEARING EXAMINER: Good morning again. Any objection to proceeding by affidavit?

MS. VANCE: Mr. Hearing Examiner --
I'll go ahead and start.
I think Sharon and I were probably going to explain the same thing. She and I spoke this morning, and we'd actually like to request to continue these cases to the October 19th hearing date.

There's still some additional negotiation and paperwork, I believe, that needs to be
completed between Matador and S.K. Warren.
And also, we were going to ask to present today, but we do have some additional notice that needs to be perfected and additional overrides that we are -- need to notice for pooling purposes. So again, we would ask that we can continue these cases to the October 19th hearing date, and we will file that continuance today after the hearing.

THE HEARING EXAMINER: Marlene?
MS. SALVIDREZ: That sounds perfect.
THE HEARING EXAMINER: Was that
Marlene? I'm not sure.
MS. SALVIDREZ: Can you not hear me?
THE HEARING EXAMINER: I hear you now.
I just wasn't sure who was speaking.
MS. SALVIDREZ: So this is Marlene.
And that sounds perfect.
THE HEARING EXAMINER: Okay. Great.
Ms. Shaheen, is there anything else from you?

MS. SHAHEEN: No. S.K. Warren has no objection to moving forward as Ms. Vance proposes.

THE HEARING EXAMINER: Okay. So, Ms. Vance, let me take some notes here, so I remember.

So we're going to continue this hearing -- we're going to set it for a hearing October 19 th , so that you can perfect notice and continue negotiations.

MS. VANCE: That's correct. And I
believe that we will have all of our -- those items taken care of by that point.

THE HEARING EXAMINER: You're also going to file and pay for a continuance later.

MS. VANCE: That's correct. We will
file a motion to continue to the October 19th hearing date after the hearing this morning.

THE HEARING EXAMINER: So you're filing
a motion to continue that?
MS. VANCE: That's correct. So we're requesting. Hopefully it's okay and the division concurs and provides approval of that at the hearing today.

THE HEARING EXAMINER: I have no problem with that. Marlene has no problem.

Mr. Lowe, do you have a problem with granting a continuance on these two cases? MR. LOWE: Well, no.

THE HEARING EXAMINER: I didn't think so.

Okay. So the continuance is granted
once you file and pay for the continuance. And on October 19, are you proceeding with the hearing by affidavit or will you need a hearing at all if you work out the negotiations?

MS. VANCE: We should be moving forward by affidavit --

THE HEARING EXAMINER: As opposed to
contested?
MS. VANCE: That's correct.
THE HEARING EXAMINER: I understand, Ms. Vance. I understand now. Okay. Anything else on these two cases?

MS. VANCE: I don't have anything.
THE HEARING EXAMINER: Thanks,
Ms. Vance.
We're going to move onto 23689, and it looks like 23690, and 91.

And, Mr. Bruce, are you with us?
MR. BRUCE: Yes, sir.
THE HEARING EXAMINER: Okay. And do we have any other counsel? I see some other cameras going on, so let's get entries of appearance from the other parties.

MR. RANKIN: Good morning,
Mr. Examiner. Adam Rankin with the Santa Fe Office of

Holland \& Hart appearing on behalf of Colgate Production, Colgate Operating Permian Resources Operating.

THE HEARING EXAMINER: Okay. And before I go to the next counsel, do you have any objection on a proceeding by affidavit?

MR. RANKIN: We do not at this time.
THE HEARING EXAMINER: At this time.
Okay. All right.
Ms. Kessler?
MS. KESSLER: Good morning again,
Mr. Hearing Examiner. Jordan Kessler with EOG Resources. On behalf of EOG, we don't have any objections to continuing by affidavit with this case. We're simply here to monitor.

THE HEARING EXAMINER: Perfect. Thank you, Ms. Kessler.

And, Mr. Savage?
MR. SAVAGE: Good morning. Darin Savage with Abadie \& Schill on behalf of Coterra [ph] Energy and Cimarex [ph] Energy Company, et al. And we have no objections to going forward by affidavit.

THE HEARING EXAMINER: Perfect.
Mr. Bruce, I want to look at the
filings in these three cases, so let me pull this up,
23689. Are the filings complete?

MR. BRUCE: Yes.
THE HEARING EXAMINER: They are
complete. Okay. Excellent. Let me get to it, and let me look at it.

Mr. Lowe, 23689 --
MR. BRUCE: And, Mr. Examiner, just for ease of filing, I -- or for my computer filing, the PDF packages, in each case there are parts one and two of the exhibits.

THE HEARING EXAMINER: Okay. No worries. Let me get there. The system is a bit slow. We have here different documents, so let me look first at this document filed on 9/18. Okay. I see part one of two. It's a 31-page document. I see.

So you have Exhibits 1 through 3 on this document and 4 through 7 on the other document.

MR. BRUCE: Correct. And that's the same --

THE HEARING EXAMINER: Okay. And -- go ahead.

MR. BRUCE: Really nothing. I said the parts one and two of each of the other two cases are split up the same way, the two exhibit packages.

THE HEARING EXAMINER: Okay. Mr. Lowe,
do you see the documents in this case?
MR. LOWE: Yes, sir, I do.
THE HEARING EXAMINER: Okay.
Wonderful. Let's start with 23689. Do you have any --

Well, Mr. Bruce, do you want to present a brief presentation?

MR. BRUCE: Yeah. I'll present -- I'll do it briefly on the first case, 689, and then just mention a couple of things very briefly on the other two cases.

THE HEARING EXAMINER: Okay. Please.
MR. BRUCE: You know, the exhibit packages completed, Exhibit 1 is the application and proposed notice. Exhibit 2 is the landman's affidavit containing the usual plats and working interest, ownership, et cetera.

You will notice Exhibit 2C -- got to find it here -- a lot of people were notified. If you look at Exhibit 2 C , there is a long list of interest owners. Many of them have very small interest. They are -- I notified more people than this, but these are the ones who now need to be pooled.

And one thing, the third page of
Exhibit 2 C shows that records -- certain record title
owners of the federal leases were also forced -- are also being force pooled, because sometimes it's difficult to get a signature out of a record title owner, which is necessary for communitization purposes.

And both the BLM and the State Land Office accept a pooling order as a substitute for a signature on the com agreement. So that's why that is done. I just want to point that out. It contains all the other necessary information, the AFEs, et cetera.

Exhibit 3 is the geologist and plats and affidavit with the usual plats showing that the geologic formation testified that third Bone Spring sand, but -- and the entire Bone Spring is being pooled and shows that it's continuous.

The second package, the affidavit of notice showing all of the notice letters sent out, plus all the white cards and green cards.

Exhibit 5 is the certified notice spreadsheet. Exhibit 6 is the affidavit of publication. There were a number of people who did not return green cards. Affidavit was timely published.

And Exhibit 7 is the pooling checklist. All of these exhibit packages are the same. In the
first case, the lands involved are the south half, north half of section 3 and south half, north half of section 4 of 20 South 29 East.

As to the next case, it's the north half, south half of those two sections. Same township and range. And then in case 691, it's the south half, south half of those two sections, all the same township and range.

I believe the exhibit packages are complete. And I'd move the admission of Exhibits 1 through 7 in each case, and ask that being taken under advisement.
(Exhibit 1, Exhibit 2, Exhibit 2C,
Exhibit 3, Exhibit 5, Exhibit 6, and
Exhibit 7 were marked for
identification.)
THE HEARING EXAMINER: Mr. Lowe.
MR. LOWE: Good morning again,
Mr. Bruce.
MR. BRUCE: Good morning.
MR. LOWE: Case 23689 -- actually, each of these cases, are they separate wells?

MR. BRUCE: They're -- spacing -different wells, different spacing units. All the -the Bone Spring is being force pooled in every case.

And in this case, all of the wells are -- they're Bone Spring sand wells.

But yeah, they're separate spacing units with three separate -- with a well on each spacing unit.

MR. LOWE: Okay. I think it would help OCD out, as far as for everybody, if you all placed your checklist up front of all your -- of your exhibits that you submit -- that -- that you are presenting for these cases. It just --

MR. BRUCE: -- I will do that -- that was a hard -- always put it as the last exhibit.

MR. LOWE: Yeah. Because that's -- I know you all want your hearing orders done quickly. To help us out, to help you out, you know, to put a little ease on that if you put the checklist up front.

MR. BRUCE: Okay.
MR. LOWE: And as far as kind of from -- okay. It's the computer. I thought I had to get Michael McMillian [ph] on you there. And as far as all the affected parties, they were all notified, and they were all verified, and basically promptly noticed; right?

MR. BRUCE: Yeah. They were notified by -- as I said, Exhibit 5, the certified notice
spreadsheet shows that there were a lot of parties -a number of them, anyway, a lot -- I did receive a bunch of green cards back.

But there are a number of parties who I did not receive these green cards back from. But that was cured by the affidavit of publication marked Exhibit 6.

MR. LOWE: Okay. And as far as exhibits goes for -- for each of these three cases, they're all pretty much about the same in general then.

MR. BRUCE: Yeah. And it's pretty uniform. Yes.

MR. LOWE: Okay. I think those are the only questions I got, Mr. Bruce.

THE HEARING EXAMINER: Okay, Mr. Lowe. I'm just looking through -- I wanted to make sure they're all complete before $I$ move on. So our imaging website is a little slow. So I've already checked 23689, and I do see that is complete. Here we go.

23690 is also complete. Okay. Let me check the -- yeah. And the last one, 91. Okay. Here we have yellow pages. All right. Mr. Bruce, I am finding all the exhibits as expected in 23689, 23690, and 23691.

So unless there's an objection to taking this under advisement from anyone -- and I haven't heard anything -- and Mr. Lowe is finished with his questions, we will take these three applications under advisement.

Okay. And now we're moving on to 23475, 77, 23365, 23366. Here we have a contested hearing or hearings. We're consolidating these. It looks like we have -- let's just have people introduce themselves.

Let's start out with the counsel for Earthstone.

MR. BECK: Good morning, Mr. Hearing Examiner. Matt Beck on behalf of the applicant for Earthstone Operating, LLC.

THE HEARING EXAMINER: Mr. Beck. Okay. Then, Mr. Beck, I think you filed a motion to strike. Is that correct?

MR. BECK: Yes, Mr. Hearing Examiner.
THE HEARING EXAMINER: We'll continue. Let's have other entries of appearance, please.

MR. BRUCE: Mr. Examiner, Jim Bruce representing Mewbourne Oil Company in all cases.

THE HEARING EXAMINER: Okay. Thank you, sir.

MR. JONES: Good morning, Mr. Hearing
Examiner. Blake Jones with Steptoe \& Johnson monitoring the cases on behalf of Northern Oil and Gas for all cases.

THE HEARING EXAMINER: Thank you, sir.
MS. RYAN: Good morning, Mr. Examiner.
Beth Ryan on behalf of Conoco Phillips and COG Operating.

THE HEARING EXAMINER: Okay. Thank you. Good morning.

MR. FELDEWERT: Good morning, Mr. Chakalian. Michael Feldewert with Santa Fe Office of Holland \& Hart appearing on behalf of Devon Energy Production Company and on behalf of MRC Permian.

THE HEARING EXAMINER: Okay. Thank you.

Do we have any other entries of appearance on these four cases? Not hearing any. Do we have any interested parties? Also not hearing any. Okay. So let's deal with the motion to strike first.

So, Mr. Beck, I read your motion. I did not get a response from anyone. I didn't feel like we needed a response. I'm denying the motion on the following grounds.

I understand that you were objecting
to the delay in the rebuttal witness and any possible rebuttal exhibits. I'm denying the motion, because the way I view -- let me grab the rule here.

The way I view this rule in my
authority is as follows. And I'm citing to nineteen fifteen four. And here we have prehearing statements. And it says, "But in no even later than 5 p.m. Mountain Time on Thursday proceeding the scheduled hearing date."

So this was filed one day later. So I understand your objection. However, in subpart 14 of the rule, under $A$, it talks about testimony. And it says, "Hearing before the commission or the division examiner shall be conducted without breach of formality." So I take that into consideration.

I also go to part 17 of the rule,
"Rules of Evidence and Exhibits, A, presentation of evidence. Subject to other provisions, the commissioner, examiner shall afford a full opportunity to the parties and the judicatory hearing."

Okay. So I look at those parts of the rule. There isn't a lot -- there isn't a lot in this rule otherwise that controls how I rule on this motion.

However, as a trial attorney, when I --
and I was a prosecutor for six years -- when I had a rebuttal witness, that rebuttal witness did not need to be listed on my witness list, but the judge construed the need for a rebuttal witness or rebuttal exhibits very strictly.

So what I'm going to do, Mr. Beck, is I leave it to you to make an objection. If you want to object to a rebuttal witness if one is called or rebuttal evidence in the form of a document or an exhibit, you are free to make the argument that this witness should have been listed on the original witness list that was filed timely in this matter.

And if you can make that argument, then
I will exclude that witness or the exhibits. But until you make that, I'm going to deny your motion. So are we ready to proceed with the hearing?

MR. BRUCE: Yes. I am, Mr. Examiner. I would point out one thing. I never saw this motion to strike, so that's why --

THE HEARING EXAMINER: Okay.
Mr. Beck?
Okay, Mr. Bruce.
Mr. Beck?
MR. BECK: Mr. Hearing Examiner, I'll
take a quick look, but $I$ know that as soon as it was filed, $I$ think Monday morning, it was sent out to all the parties who had appeared, including Mr. Bruce, via email. So let me make sure that's correct.

It also appeared on the docket at 10:47 a.m. on Monday morning, on the OCD docket, so --

THE HEARING EXAMINER: Well, Mr. Bruce, I'm looking at the certificate of service, page 12 of the document. He does state that he served it on you. Whether you received it or not, I can't, obviously -but it is denied anyway, so $I$ don't think that we should waste time on this any longer.

MR. BRUCE: Correct.
THE HEARING EXAMINER: So, Mr. Bruce, are you presenting the case?

MR. BRUCE: Yes.
THE HEARING EXAMINER: Okay. Please proceed.

MR. BRUCE: Okay. I don't know if you want any opening statements or not, or just dive into the case, Mr. Examiner.

THE HEARING EXAMINER: You know, is it your pleasure -- Mr. Bruce, you have the burden of persuasion, of course. So if you want to give a succinct opening statement, please feel free.

MR. BRUCE: Okay. I will be brief, but normally $I$ am.

Mr. Beck, in his prehearing statement, set forth an order, $R 21834$, stating factors involved when we had competing pooling situations like this.

There is another older case, the commission order, $R$ 10731-B. And the main -- the commission set forth the main issues to look at, number one, the geology. Number two, good faith negotiations.

Number three, AFEs, although that's a minor consideration, and then working ownership or control. I think both parties will get into that in the hearing.

I would just point out that there's a couple of key factors here. Mewbourne has been working on this project for several years now, and I believe it's been diligent in the good faith negotiations.

Furthermore, in these particular well units, working ownership or control is a key factor, because Mewbourne's cases are supported by about 75 percent of the working interest owners, which is a substantial factor involved.

And finally, we believe that the
geology, the zones Mewbourne refers to be tested, are the better zones to test.

And with that, the only other issue, I think, that you want to look at is under division regulations, when you're dealing with unitized lands, like Mewbourne's are, in section 7, a party who wants to drill has to get the approval of the state land commissioner to drill those lands.

Mewbourne has that approval and Earthstone does not. And therefore, we think Mewbourne has the superior position in this -- in these cases. Thank you.

THE HEARING EXAMINER: Okay.
Mr. Bruce, before you continue, who is the technical examiner on this case today?

MR. LOWE: I believe it's still me, Mr. --

THE HEARING EXAMINER: Okay. I wasn't sure if we were going to have a different one for compulsory pooling competing applications or not. So it is still you, Mr. Lowe?

MR. LOWE: As far as I know. Nobody else told me otherwise, but --

THE HEARING EXAMINER: Okay. All
right. Sounds good. This is my first contested
hearing.
And what $I$ want to ask the parties is does Mr. Bruce have the burden of persuasion for all four cases or does he only have it for 23365 and 66, whereas Earthstone would have the burden of persuasion in 75 and 77? Can anyone advise me on that?

MR. BRUCE: I guess I've never really
put it that way, Mr. Examiner, but -- the examiners have generally looked at these and decided who has the better argument.

So I guess -- I guess it's probably proper what you're saying. Mr. Beck has the burden of persuasion on his cases, and $I$ have the burden of persuasion on mine.

THE HEARING EXAMINER: Okay. All right.

Mr. Beck, how do you feel about that?
MR. BECK: I agree with Mr. Bruce.
THE HEARING EXAMINER: Wonderful. So,
Mr. Beck, do you have a brief opening statement?
MR. BECK: Yes, Mr. Hearing Examiner. Earthstone is filing competing applications with Mewbourne in these matters. As Mewbourne points out, previously Mewbourne had looked to extend the North Wilson Deep Unit in the September -- or excuse me --
in 2020 .
In December of 2020 , it agreed with Earthstone's predecessor in interest, Chisholm, to remove the sections from the expansion of the North Wilson Deep Unit that it now seeks to drill.

And it did that because of Chisholm's opposition to including these areas in that expansion of the North Wilson Deep Unit.

Chisholm opposed that expansion for the exact reason that Earthstone has submitted competing applications for these wells.

And that is because Earthstone owns interest in both the east half, east half section 18 and the west half, east half of section 18. Mewbourne does not own working interests in those sections.

So when the division looks at the working interest ownership for these competing applications, that's a key factor.

Also looking at the good faith negotiations, which is a factor in both of the cases that Mr. Bruce listed for you, Chisholm's opposition and Mewbourne's agreement for that opposition factor into those good faith negotiations.

Also, when the division is looking at the protection of correlative rights, waste, the

Page 80
factors that it looks at in all applications, should be notable to the division.

When you're looking at the geology of the two competing applications and development plans that Earthstone, unlike Mewbourne, is applying for four wells in the spacing units, whereas Mewbourne is applying for two wells in the spacing units.

Mewbourne is targeting only the second
Bone Spring sand formation. Earthstone, on the other hand, is targeting both the first and second sand formations within the Bone Spring.

The final factor to that is that for the second sand formation, the Bone Spring, Earthstone's application is providing for what's referred to as a wine rack formation for the drilling sections and the testing.

And that's a more modern approach to ensure that the spacing between the wells is further apart, which allows for a more efficient and eventually more economical production from these wells.

And so Earthstone will be asking the division and will show today that its development plan is superior to that of Mewbourne's.

THE HEARING EXAMINER: Okay. Thank
you, Mr. Beck.
Mr. Bruce, do you want to -- your case
in chief?
MR. BRUCE: Yes. What I planned on doing was running through the -- well, first I'll go exhibit by exhibit -- I mean, excuse me -- witness by witness. And I'd like to get the pertinent witness sworn in as a -- geologist, engineer, or whatever.

And then I would run briefly through the exhibits and ask some follow-up questions if that procedure is acceptable to you.

THE HEARING EXAMINER: Let me -- before we get -- I think I'd like to get all the witnesses sworn in at one time by the court reporter. But before we do that, let's talk about the exhibits for a moment.

Each party has multiple exhibits. Let me take a look first. Do I have an exhibit list from you? Let's see. This here is a prehearing statement.

Give me a moment here. What is this? This is Earthstone's exhibits list. Let's go back now. Earthstone's amended prehearing statement. Okay. This is still Earthstone.

Mr. Bruce, I'm looking for your exhibit list. I'm sure I'll find it. We have an amended
prehearing. Mr. Bruce, on what date did you file your exhibit list?

MR. BRUCE: Last Thursday, mid-afternoon.

THE HEARING EXAMINER: What was the date, sir?

MR. BRUCE: What is that? The 14th.
THE HEARING EXAMINER: Okay. I'm looking. I have all the documents open here. I have a prehearing statement from you. I don't see your exhibit list. Can you point it out to me?

MR. BRUCE: Hold on. I got to get to my computer, sir.

THE HEARING EXAMINER: Let's take a five-minute break. It's 9:45. We're going to come back on the record at 9:50 this morning. Thank you.
(Off the record.)
THE HEARING EXAMINER: September 21st.
We are continuing the contested hearing in 23475, 23477, 23365, and 23366.

Mr. Bruce, I think $I$ found your exhibits. I think $I$ found your exhibits. So I have a green cover sheet with Exhibits 1 through 9. Is that correct? Mr. Bruce, are you with us? / /
(Exhibit 1 through Exhibit 9 were marked for identification.)

MR. BRUCE: Yes, I am. Sorry. Muted
myself. Yes. The green package is the main exhibit list. And then --

THE HEARING EXAMINER: And then I see additional exhibits filed on the 19th. It looks like Exhibit 10. Then there's a self-affirming statement by Nick Stowers, but it doesn't have an exhibit number next to it. And then $I$ have Exhibit 12.

MR. BRUCE: Yeah. The affidavit should be Exhibit 11. It's marked in the package.

THE HEARING EXAMINER: I see. So you are, what, amending Exhibits 10, 11, and 12 through this filing?

MR. BRUCE: No. Exhibits 10 and 12 are new exhibits. And then Exhibit 11, the Nick Stowers affidavit, that's the rebuttal witness.

THE HEARING EXAMINER: I see. That's your rebuttal witness. Okay. And then we have another -- filing -- hold on a second. Then we have another filing on the 20th, which was yesterday, with the yellow cover page.

MR. BRUCE: Yeah --
THE HEARING EXAMINER: -- the colors
are actually helpful. And it looks to me like you are revising Exhibit 2-2.

MR. BRUCE: Yes. Two in each case, because there was -- we discovered some mistakes in the original filing, and so we wanted to correct what was in there --

THE HEARING EXAMINER: Okay. Well, let's go to -- I understand. Let's go to Mr. Beck.

Mr. Beck, are any of -- do you object to the admission of any of these exhibits into evidence?

MR. BECK: Yes, Mr. Hearing Examiner, as I think you're probably anticipating from the motion to strike and exclude.

We do object to the exhibits that were filed on Tuesday, the 19th, about 4 in the afternoon, as well as the testimony by Mr. Stowers, the purported rebuttal witness whose testimony was disclosed two days before. And it's not rebuttal testimony, but testimony that should've been set forth originally.

We -- don't object to the -- let me -I don't want to cut you off. Just to complete it for you, we don't object to the admit to $2-2$, because $I$ think that that's probably a closer representation of the working interests, and is certainly something that
we would've anticipated originally being corrected, whether now or at a later date.

THE HEARING EXAMINER: Okay. So let me very clear and specific. Which exhibits are you not objecting to or are you stipulating to?

MR. BECK: Sure. And let me make sure I've got it in front of me, as well. It's Exhibits 1 through 9, which were timely filed under the Court's pre-hearing order and under the rules applicable to these proceedings.

And we object to Exhibit 10, what I think is Exhibit 11, but let me check -- yes. Exhibit 11, and Exhibit 11A and B, and Exhibit 12.

THE HEARING EXAMINER: Okay. And then you're not objecting to the revised Exhibits 2-2. Is that correct?

MR. BECK: That's correct.
THE HEARING EXAMINER: All right. Let me make notes of this. Revised 2-2. Okay. So Exhibits 1, 2, revised $2-2,3,4,5,6,7,8$, and 9 are hereby admitted into evidence by stipulation.
(Exhibit 1, Exhibit 2, Exhibit 2-2,
Exhibit 3, Exhibit 4, Exhibit 5,
Exhibit 6, Exhibit 7, Exhibit 8, and
Exhibit 9 were received into evidence.)

And Exhibits 10, 11, and 12 are not admitted into evidence at this time. Mr. Bruce can attempt to lay a foundation and make arguments, but that's for the future.

So, Mr. Bruce, do you understand that?
MR. BRUCE: Yes, sir, Mr. Examiner.
And I did want to point out one thing. There's actually been three pre-hearing statements I filed. One was filed in February of this year when we thought we were going to hearing. I amended that, and that one was filed.

And we filed September 14 th in the mid-afternoon. And then the next morning when my witnesses saw Earthstone's exhibits, that $I$ filed for an amended statement to say that we may file rebuttal exhibits and -- witness Mr. Stowers. I just wanted to get that timeline down straight.

THE HEARING EXAMINER: Okay. I
understand that. So are you -- okay. Well, what I'm doing here now is I'm looking for the parties -- I'm looking toward the parties for stipulations on each other's exhibits.

So some have been stipulated to,
Mr. Bruce, and some have been objected to. MR. BRUCE: Okay.

THE HEARING EXAMINER: I've admitted some into evidence. Some have not been admitted into evidence at this time. So now, Mr. Bruce, I'm going to turn to you for the same question.

Mr. Beck, let me get your exhibit list.
I have a table of contents on page 2 of 150. We have how many -- let me ask you. It looks as though you have Exhibits A, B, C, D, and subparts Number 2. Is that correct?

MR. BECK: That's correct.
THE HEARING EXAMINER: Okay.
Mr. Bruce, do you have the filing that I'm referring to? It was filed on September 14th.

MR. BRUCE: Yes, I do.
THE HEARING EXAMINER: Okay.
Wonderful. Now before I ask you a question, Mr. Bruce, Mr. Beck, are there any amendments, or changes to these exhibits, or did you add any?

MR. BECK: There was an amendment filed the next morning, Exhibit -- amended Exhibit C. And what it added was the resume or CV of Mr. Nicholas Goree, which is Exhibit C. It just included his resume after his direct testimony.

THE HEARING EXAMINER: Okay. And you're marking that as Exhibit C, but I already showed
that you have, in tab number 4, Exhibit C, C1, C2, C3, C4. So you already have an Exhibit C. So I'm confused.
(Exhibit $C$ and Exhibit C1 through C4 were marked for identification.) MR. BECK: Yeah. So I apologize for that. I probably could've made it more clear for you. Exhibit $C$ is an eight-paragraph direct testimony from Nicholas Goree.

THE HEARING EXAMINER: Okay.
MR. BECK: And then paragraph 4 in that says -- in the, I guess, the penultimate sentence, "My resume is attached for the division's review and consideration."

I omitted his resume when $I$ filed it -for 14. And so the amended Exhibit C, which I filed in the morning of the 15 th, just includes his resume. THE HEARING EXAMINER: I see. So you --

MR. BECK: Otherwise it's the same.
THE HEARING EXAMINER: Okay. All
right. I understand now what happened. So you're amending -- but you didn't mark it -- you didn't mark Exhibit C as "Amended Exhibit C," which is what's confusing here.

MR. BECK: Yeah. I apologize for that. It had a cover page on it.

THE HEARING EXAMINER: I see.
MR. BECK: And I should've been more --
THE HEARING EXAMINER: I see it now.
So Exhibit C is actually an amended Exhibit C on the filing from the 15th of September. Okay.

So, Mr. Bruce, I don't know -- do you have all those documents there?

MR. BRUCE: Yes, I do, sir.
THE HEARING EXAMINER: Okay. Very good. So let's start with Exhibit A, A1, 2, 3, 4, 5, and 6. Do you stipulate to any of those?
(Exhibit A and Exhibit A1 through
Exhibit A6 were marked for
identification.)
MR. BRUCE: I have no objection to Exhibit $A$ and its attachments. And $I$ have no --

THE HEARING EXAMINER: Okay. Hold on, Mr. Bruce. Just let's go one step at a time, because I'll get confused if we don't.

MR. BRUCE: Okay.
THE HEARING EXAMINER: Okay. So A -and then we have 1 through 6. They're admitted into evidence through stipulation.

| 1 | (Exhibit A and Exhibit A1 through |
| :---: | :---: |
| 2 | Exhibit A6 were received into |
| 3 | evidence.) |
| 4 | Okay. Let's go to Exhibit B. |
| 5 | MR. BRUCE: Okay. |
| 6 | THE HEARING EXAMINER: Mr. Bruce? |
| 7 | MR. BRUCE: Yes. I -- this is the |
| 8 | testimony of the geologist. And in particular, I |
| 9 | object to the admission of Exhibits B6 through B10, |
| 10 | because they pertain to reservoir engineering, not - |
| 11 | THE HEARING EXAMINER: Okay. |
| 12 | MR. BRUCE: And I -- |
| 13 | THE HEARING EXAMINER: You don't have |
| 14 | to explain to me, Mr. Bruce. I just want to hear what |
| 15 | you're going to stipulate to and what you're not going |
| 16 | to. So back to B. |
| 17 | MR. BRUCE: Okay. |
| 18 | THE HEARING EXAMINER: It sounds like |
| 19 | you're stipulating 1 through 5. Is that correct? |
| 20 | MR. BRUCE: Yeah. Exhibit B, and then |
| 21 | B1 through B5. |
| 22 | (Exhibit B and Exhibit B1 through B5 |
| 23 | were marked for identification.) |
| 24 | THE HEARING EXAMINER: Perfect. All |
| 25 | right. Good. |
|  | Page 91 |

So they are admitted now into evidence by stipulation.
(Exhibit B and Exhibit B1 through B5 were received into evidence.)

But we are objecting to 6 through 10 based on the foundation.

MR. BRUCE: Correct.
THE HEARING EXAMINER: So we have a lack of foundation.

Okay. So, Mr. Beck, you know what the objection is.

Now let's go to $C$ and its subparts, including the amended $C$, the amended direct testimony of Nicholas Goree.

Are those stipulated to, Mr. Bruce, or not?

MR. BRUCE: Yeah. Mr. Goree's testimony and exhibits I have no objection to.

THE HEARING EXAMINER: All right. Let me make notes.

MR. BRUCE: And that would be the amended stuff filed on Friday, I believe.

THE HEARING EXAMINER: Plus 1 through
4.

MR. BRUCE: Correct.

THE HEARING EXAMINER: All right. So they are now admitted into evidence by stipulation. (Exhibit C and Exhibit C1 through C4 were received into evidence.)

Now we're going to go to D, and then its subparts, 1 through 4.
(Exhibit D and Exhibit D1 through
Exhibit D4 were marked for identification.)

Mr. Bruce.
MR. BRUCE: Which other exhibits now?
The --
THE HEARING EXAMINER: $D$ as in David.
MR. BRUCE: I'm sorry. I don't have the -- what are they? I don't have the exact list right in front of me --

THE HEARING EXAMINER: Okay. Sure. It says here, "Exhibit D, affirmation of notice, Matthew Beck." D, notice -- well, let's just wait till the end -- notice letters, D1. Mailing list receipts, D2. Affidavit of publication, D3, and supplemental letters and affidavits of publication D4.

MR. BRUCE: No objection.
THE HEARING EXAMINER: Okay. Very
good.

| 1 | So Exhibits D and D1 through 4 are |
| :---: | :---: |
| 2 | admitted into evidence by stipulation. |
| 3 | (Exhibit D and Exhibit D1 through |
| 4 | Exhibit D4 were received into |
| 5 | evidence.) |
| 6 | Okay. So, Mr. Bruce, do you have all |
| 7 | your witnesses here? |
| 8 | MR. BRUCE: Yes, I do. |
| 9 | THE HEARING EXAMINER: Okay. Very |
| 10 | good. How many do you have? |
| 11 | MR. BRUCE: I have three witnesses, |
| 12 | Adriana Salgado, landman, Jordan Carrell, |
| 13 | $\mathrm{C}-\mathrm{A}-\mathrm{R}-\mathrm{R}-\mathrm{E}-\mathrm{L}-\mathrm{L}$, geologist, and then Nick Stowers, |
| 14 | engineer. |
| 15 | THE HEARING EXAMINER: Okay. And Nick |
| 16 | Stowers is the rebuttal witness. Is that correct? |
| 17 | MR. BRUCE: Yes. |
| 18 | THE HEARING EXAMINER: Okay. Well, |
| 19 | we're going to get them all sworn in. |
| 20 | So I need everyone to turn their |
| 21 | cameras on. So far I have one person with their |
| 22 | camera on. |
| 23 | In the meantime, Mr. Beck -- there, we |
| 24 | have another -- there we have all three. Very good. |
| 25 | And, Mr. Beck -- |
|  | Page 94 |

 Okay. Let's have everyone raise their right hand. WHEREUPON,

ADRIANA SALGADO,
called as a witness and having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, was examined and testified as follows: WHEREUPON,

JORDAN CARRELL,
called as a witness and having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, was examined and testified as follows: WHEREUPON,

NICK STOWERS, called as a witness and having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, was examined and testified as follows: WHEREUPON,

## AMANDA REDFEARN,

 called as a witness and having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, was examined and testified as follows: WHEREUPON,JASON ASMUS, called as a witness and having been first duly sworn
to tell the truth, the whole truth, and nothing but the truth, was examined and testified as follows: THE HEARING EXAMINER: All right. The only person $I$ 'm not sure $I$ heard from was $M r$. Goree. Did you affirm? WHEREUPON,
NICHOLAS GOREE,
called as a witness and having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, was examined and testified as follows: THE HEARING EXAMINER: You do. Okay. Wonderful.

May the record reflect that all the witnesses have affirmed to tell the truth and are under oath at this point.

So, Mr. Bruce, you're putting on your case first, your case in chief first. And then, of course, it'll turn to Mr. Beck for his case in chief. So, Mr. Bruce, please proceed.

MR. BRUCE: Okay. Mr. Examiner, first I would go to the landman, Adriana Salgado. She's been sworn in. Her exhibit with number 2 states her experience. And I would ask that she be admitted as an expert -- be qualified as an expert petroleum landman.

THE HEARING EXAMINER: Okay.
And, Mr. Beck, I know you didn't object
to the exhibit, but do you object to her being qualified as a expert?

MR. BECK: No.
THE HEARING EXAMINER: Okay. Very
good.
Mr. Bruce, please proceed. She is admitted as an expert.

## DIRECT EXAMINATION

BY MR. BRUCE:
Q Okay. Ms. Salgado, the section 7 lands here today in all four cases are in the North Wilson Deep Unit. Is that correct?

A I'm sorry. I couldn't hear you. Could you repeat, please?

Q Yeah. The section 7 lands that all four cases are involved in today, those are lands within the North Wilson Deep Unit. Is that correct?

A Yes, sir.
Q And that is -- virtual connectivity interruption --

THE HEARING EXAMINER: Mr. Bruce, your connection is not good. And if we're going to proceed with the case in chief, we have to have a clear
connection.
MR. BRUCE: Can you hear me better now?
THE HEARING EXAMINER: Yes, I can.
Yes. But -- we couldn't before, and your witness couldn't understand you, and I'm sure the court reporter couldn't either.

MR. BRUCE: Okay. Well, I was hearing some interference on the line, and that wasn't here, because this room is pretty silent. So anyway, let me move forward.

THE HEARING EXAMINER: Please.
BY MR. BRUCE:
Q Ms. Salgado, the Deep Unit, or the unit, I'll just call it, that's 100 percent State of New Mexico land; correct?

A Correct.
Q And when did you start trying to put together the unit, and when did we get unit approval?

A I began working on the North Wilson Deep State Unit expansion in 2020. We filed an application in 2020, and we received final approval in the middle of 2021 .

Q And then did shortly after that Mewbourne commence the process of getting wells drilled within the unit?

A Yes, sir. We have so far drilled four unit wells to date.

Q And did all of those well units have to be force pooled, because of uncommitted mineral interest within the unit area boundary?

A Yes, sir, they did.
Q Okay. Now under the unit agreement, what is the drilling obligations that the state land office -go ahead.

A -- the drilling commitment of 14 wells in the first five years, and the unit will contract to producing drill blocks after 10 years. Therefore, we need to drill.

Q Okay. And Mewbourne has sole right to operate within the exterior boundaries of the unit. Does it not?

A Yes, sir. Mewbourne is the designated unit operator.

Q Okay. And section 18 clearly is not in the unit.

A Correct.
Q And we'll get into some other things with the other witnesses, but this land formed by Earthstone, section 18, they own a large interest in section 18 that's set forth in your land exhibits.

A Yes, sir. That's correct.
Q Who originally -- who was the original interest owner?

A Chisholm -- Energy -- Chisholm Energy
Operating.
Q And at one time, could Earthstone have drilled from section 18 south into section 19 if it wanted 2-mile lateral?

A Correct. When we negotiated or when I negotiated with Chisholm to remove the east half of that section 18 from the proposed unit, they asked us to do that. We agreed to it.

They simply did not want to spread their interest throughout the entire unit, because they had a larger working interest in that tract, in the east half of section 18 .

At the time that we negotiated, section 19 to the south of section 18 had not been drilled upon yet.

Since then, things have changed in that area, so it's kind of boxed Earthstone and other parties into that section 18 . So they could have possibly drilled there, like, a year ago, but never attempted to do that.

Q Okay. And now if they want to drill 2-mile
laterals in the east half of section, including the east half of section 18 , they would have to go north into the unit area; correct?

A Correct.
MR. BRUCE: Okay. Mr. Examiner, there is --

THE HEARING EXAMINER: I'm waiting for you, Mr. Bruce.

MR. BRUCE: Yes. I know, sir. I just wanted to get the correct rule. NMAC 19.15.16.15.B6. THE HEARING EXAMINER: Okay. Hold on. MR. BRUCE: Yes, sir.

THE HEARING EXAMINER: Hold on. I wasn't prepared to have to look up a rule, so give me a minute. I'm not familiar with every rule yet. One moment, please.

MR. BRUCE: Sure.
THE HEARING EXAMINER: Okay. And what are you relying on this rule for?

MR. BRUCE: Mr. Examiner, in part it says that no horizontal spacing unit may be designated that lies partly within and partly outside of a state exploratory unit, which is what the North Wilson Deep Unit is, or the federal exploratory unit if the horizontal spacing unit includes state trust lands
without the written consent of the commissioner of public lands.

BY MR. BRUCE:
Q Ms. Salgado, does Mewbourne have that support from the state land office?

A Yes.
THE HEARING EXAMINER: We couldn't hear
you, ma'am --
THE WITNESS: Yes, sir. We do.
THE HEARING EXAMINER: Good. Please speak up, Ms. -BY MR. BRUCE:

Q And is that marked Exhibit 4 in the exhibit package?

A Yes, sir.
Q Okay. To the best of your knowledge, does Earthstone have a similar approval from the state land office?

A To the best of my knowledge, they do not.
Q Okay. Just a couple more questions, Ms. Salgado. Another thing regarding your revised tract ownership list, they show that Mewbourne has about $281 / 2$ percent interest in each well unit. Does it have support via a joint operating agreement from other interest owners?

A Yes, sir, we do. Currently, with -- sorry. Go ahead.

Q Go ahead.
A I was just going to state currently with the letter of support from Devon Energy, we have a total of about 72 percent approval of working interest owners to drill these wells.

Q Okay. And --
THE HEARING EXAMINER: Mr. Bruce.
MR. BRUCE: Yes?
THE HEARING EXAMINER: Mr. Bruce, I'm confused about Exhibit 4. I thought Exhibit 4 was the state land office support.

MR. BRUCE: Oh, I'm sorry, sir. I was moving forward after that. Yeah. You'll see at the bottom of the letter -- or not the bottom -- toward the end of the email where Mr. Dawson, who is a longtime employee not only of the state land office, but the oil conservation division, he does give approval for Mewbourne to drill.

THE HEARING EXAMINER: Okay. I understand. That's Exhibit 3, though. That's why I was confused.

MR. BRUCE: Oh, Exhibit 3. I am sorry, sir. I'm looking at -- I was looking at letter 4,

Page 104
which is the letter of support from Devon.
THE HEARING EXAMINER: Yes, I know. I understand. Okay. I'm clear now. I understand. Please proceed with your examination of this witness. MR. BRUCE: Okay.

BY MR. BRUCE:
Q Now your Exhibit $2-2$ is the tract ownership list. They list all the working interest owners in these two wells. Do they not?

A Yes, sir.
Q And then the asterisk by certain companies, those are the parties who need to be pooled.

A Correct.
Q Now there's Earthstone, Oxy USA, MRC Permian, and Oxy USA WTP. There is also Devon Energy needs to be pooled. And so this is the correct thing. The letter of support from Devon supporting Mewbourne's proposal over Earthstone's is marked Exhibit 4. Is it not?

A That's correct.
Q Now tell me a little bit about Devon, that they own interest inside the unit area, but $I$ don't know if all or most of them are uncommitted. They own various mineral interests or working interests in various tracts. Is that a fair statement?

A Yes, sir. Devon has participated in our first four wells. We have pooling order. Their preference is just to be pooled into elect under a pooling order. So yes, sir, they -- they do own their --

Q So even though they haven't signed a JOA, they are supporting Mewbourne in its application.

A That is correct. They have stated that they would prefer to drill $2-m i l e ~ l a t e r a l s ~ i n s t e a d ~ o f ~ b e i n g ~$ confined to 1 mile.

Q They have a pretty large interest in section 18. Is that where their interest ownership arises?

A Yes, sir. That is correct.
Q Okay. One thing that came up in
Earthstone's testimony was the surface use. Does Mewbourne have a surface use agreement with the surface owner?

A Yes, sir. We do. There are no surface issues affecting Mewbourne.

Q And again, what was that rough interest with Devon's approval? How much support do you have for drilling your wells, percentage-worth -- support?

A That's approximately 72 percent.
Q And then one -- matter is -- I've marked it Exhibit 10. It's a letter between Mewbourne and

Chisholm. What does that -- it's dated December 1, 2020. What does that letter state?
(Mewbourne Exhibit 10 was marked for identification.)

THE HEARING EXAMINER: Hold on. That
letter is not in evidence, so you're going to need to present a foundation for that letter to come in, and we're going to let Mr . Beck object and make an argument. So let's slow down here on Exhibit 10. Please proceed.

BY MR. BRUCE:
Q First of all I'll just ask, Ms. Salgado, who is this letter agreement between?

A This letter agreement is between Chisholm Energy Operating, LLC, Chisholm Energy Holdings, LLC, and Mewbourne Oil Company.

Q And were you responsible for negotiating this letter agreement?

A Yes, sir.
Q And so did you essentially draft this letter?

A Yes, sir.
Q And I think you just said it had agreed to exclude certain tracts from the North Wilson Deep Unit. Does it say any -- are there any other
agreements in this letter other than those specific excluding the tracts?

A Chisholm agreed to commit to participate in the expansion of the North Wilson Deep State Unit once those tracts were removed. That's all.

Q Okay. The interests that did commit to the unit, are they fairly small interests compared to its roughly 50 percent interest in section 18 ?

A That is correct.
Q And because they had a large interest in section 18 , did they want to keep that excluded from the unit?

A That is correct. They didn't want to dilute their interest.

MR. BRUCE: Okay. Mr. Examiner, I move the admission of Exhibit 10 -- Mewbourne Exhibit 10 .

THE HEARING EXAMINER: Mr. Beck?
MR. BECK: Yeah. May $I$ voir dire the witness for just a minute on a couple of these issues?

THE HEARING EXAMINER: Please do.
MR. BECK: Thank you.
EXAMINATION
BY MR. BECK:
Q Ms. Salgado, did you ever read Mewbourne's motion to dismiss Earthstone's applications in these

```
proceedings?
```

THE HEARING EXAMINER: We can't hear you, Ms. Salgado. Can you speak louder?

THE WITNESS: Yes, sir.
BY MR. BECK:
Q Do you need me to ask the question again, Ms. Salgado?

A No, sir.
Q Did you ever --
A I -- I responded with a "Yes, sir."
Q You did read that. Did you read
Earthstone's response to the motion to dismiss in April of this year?

A I -- I did, sir. I can't tell you if $I$ have that -- if $I$ remember everything that it said, but yes, sir.

Q Do you remember that it talked a lot about the agreement between Chisholm and Mewbourne regarding exclusion of section 18 from the expansion of the North Wilson Deep Unit?

A Yes, sir.
Q And when did you sign this letter from Mewbourne that's marked Exhibit 10?

A Sorry. Could you --
Q Yeah. I assume that -- you said you drafted
this letter that's Exhibit 10; right?
THE HEARING EXAMINER: Ms. Salgado, we can't hear you and neither can the court reporter. THE WITNESS: Yes, sir.

BY MR. BECK:
Q So when did you find this document that's Exhibit 10 to be marked for this hearing?

A When did $I$ sign it or find it? I can't hear you. I'm sorry.

Q Find, F-I-N-D.
A It's been in our file, sir. I don't remember the exact date.

Q You think it was in your files in April or May of this year?

A Yes, sir.
Q But you didn't provide it to the Court when it was deciding the motion to dismiss that was going to dismiss these applications for Earthstone. You didn't provide it to the hearing officer or the division then, did you?

A Correct.
Q Why not? Did you answer that? You must've cut out.

A I said I don't know how to answer that.
Q And according to you, in exchange for
signing this letter, Chisholm agreed to participate in the North Wilson Deep Unit expansion that was in front of the division in December 2020; right?

A That's correct.
Q And that interest of Chisholm you know is now with Earthstone; right, as the successor in interest of Chisholm's interest in the North Wilson Deep Unit?

A That is correct.
Q But Mewbourne did not provide this signed letter purporting to be signed by Chisholm in this matter until two days ago; right?

A That is correct.
Q And do you know sitting here today that Earthstone's only ability to file any kind of response to this letter under the rules of the division, as stated in the prehearing order, would've been a week ago today?

A That is correct, sir.
Q Did you -- so you knew that our only chance -- Earthstone's only chance to respond to this in writing would've been a week ago today; right? Your sound is cutting out. I saw your lips move, but I don't know the court reporter would be able to read lips as well as mine.

A I'm sorry. Yes.
MR. BECK: That's all I have, Mr. Hearing Examiner. Thank you.

THE HEARING EXAMINER: Mr. Beck, I appreciate that the voir dire is finished. But do you maintain your objection? Do you want to make an argument about it? What do you want to do?

MR. BECK: Yes, Your Honor. Yeah. Earthstone maintains its objection. I understand your position as the hearing officer. This letter is news to Earthstone.

It apparently -- I would expect it's news to the division, considering that the division directly addressed this issue on the motion to dismiss.

And it was not as if -- I mean, everything in those briefings -- granted, I did not argue it. I didn't draft those briefings. But everything in those briefs was directed at this agreement.

And then not only was it not filed what is now over four months ago or three months ago before the division issued the order, not only was it not timely filed last Thursday -- and perhaps we could've done something about it, but it wasn't filed until two
days ago.
So I think it should be excluded. Earthstone has not had the opportunity to talk to anyone who is a signatory to this. We didn't know who prepared it until a few moments ago.

And so that's the reason Earthstone believes it should be excluded from this hearing and from the division's consideration.

THE HEARING EXAMINER: Thank you, Mr. Beck.

Mr. Bruce?
MR. BRUCE: Mr. Examiner, she has testified to its authenticity. And there's two things. That in the letter there's nothing agreeing not to pool certain acres.

The other thing, it's been stated on the order -- or in the order approving the expansion of the unit area, which was issued two years ago, and it was in the testimony that Chisholm asked Mewbourne to exclude the acreage described in Exhibit 10 from the unit, and Mewbourne said, "Yes." Period.

That's all that was ever said at the commission hearing -- or at the division hearing. I don't know what there is. I mean, that's -- and I thought this was a dead issue, and I didn't know
anything about it until $I$ saw their pre-hearing statements late Thursday night.

So I think it's perfectly acceptable. And going along with the idea that you should let in all relevant evidence.

And the thing that $I$ find amazing is what they're saying is that there's an agreement that Mewbourne cannot drill into section 18 , but they're saying that they can drill into Mewbourne's operated acreage in section 7. That simply doesn't make sense.

THE HEARING EXAMINER: Mr. Bruce, we're getting off the subject here. Mr. Beck is arguing that this letter should have been produced -- this exhibit should've been produced timely. And he's arguing that it was not produced timely.

I'm not quite sure what your argument is. I do see what the -- I do see that this was dated December 1, 2020. Your witness stated she drafted this letter.

So I'm not understanding why this wasn't produced in a timely fashion. Can you directly answer that question?

MR. BRUCE: I didn't -- all I know is
when the unit area was formed, $I$ was the attorney for Mewbourne in that case, and $I$ never saw the letter. I
just was told that Mewbourne agreed to exclude this acreage. I had to go amend the application -actually, dismiss one application and file another.

And I think there was another entity who asked for some acreage to be deleted. And that was done. That's all $I$ knew about it.

And it really just mirrors what was known to Chisholm years ago. And Earthstone is the one who bought Chisholm. They ought to know about it. I don't see the big issue.

THE HEARING EXAMINER: But, Mr. Bruce, the rules here are very specific about exhibits and when they need to be filed. This is late filed. And unless you have a good reason, I'm going to sustain the objection and not admit Exhibit 10.

MR. BRUCE: Well, I think you said at the beginning that, you know, that these hearings are -- the evidentiary part of the hearing is formal. And I would just rely on that.

But Ms. Salgado -- I can ask their witness about it, but $I$ would just say it's been common practice just to file exhibits as you get them, and -- but I'll agree with whatever you say, Mr. Examiner.

THE HEARING EXAMINER: Okay. Thank
you, sir. I'm not aware of what common practice was before $I$ got here, but as a trial attorney and as someone who can read these rules and interpret the rules, you though there's such a thing as fair play and not, you know, unnecessarily surprising your opponent.

And I feel like this exhibit was not timely filed, and there's no good reason to let it in at this point.

So Exhibit 10 is excluded from evidence at this point.

So, Mr. Beck, you voir dired this witness. Now I believe this is your opportunity for cross-examination of this witness.

MR. BECK: Yeah. I don't know if Mr. Bruce has more with her, Mr. Hearing Examiner. I don't know that he was finished. And so I'll reserve --

MR. BRUCE: Just one follow-up question. Thank you, Mr. Beck.

DIRECT EXAMINATION
BY MR. BRUCE:
Q Ms. Salgado, do you know or are you aware of any agreement with either Chisholm or Earthstone, verbal or written, never to pool the east half of
section 18?
A I am not.
MR. BRUCE: Thank you.
THE HEARING EXAMINER: Mr. Beck?
MR. BECK: Thank you, Mr. Hearing
Officer.
CROSS-EXAMINATION
BY MR. BECK:
Q Ms. Salgado, I want to talk to you and make, first of all, clear, when you said that all of the acreage in Mewbourne's applications here is part of the Northwest Deep Unit, that's not accurate, is it?

A The east half of section 18 is not part of the unit.

Q And that east half of section 18 is included in the application for the division; correct?

A Correct.
Q Right?
A Correct.
Q I want to direct your attention to Exhibit 3 in Mewbourne's application exhibits, which is the letter you were referring to earlier -- excuse me -the email you referred to earlier from the state land office. Do you have that in front of you?

A Yes.

MR. BECK: And I don't know if it's showing up on your computer, but $I$ brought it up in front of mine. Are you seeing that, Mr. Hearing Officer?

THE HEARING EXAMINER: I am.
BY MR. BECK:
Q It looks to me like, Ms. Salgado, this is an email from Scott Dawson to you. Is that right?

A Yes.
Q Now this says -- the subject line is "EXT RE North Wilson Deep Unit"; right?

A Right.
Q So this was an email from Mr. Dawson in response to something that you provided.

A Yes.
Q Do you still have a copy of whatever you provided him?

A Not -- I don't have it in front of me.
Q Well, since we don't have that, maybe we can just look at this a little bit more closely.

It looks like in the first paragraph there, the second sentence, he's providing you his understanding, which says that Earthstone is not a part of the unit agreement; therefore, they cannot drill into or beneath the North Wilson Deep Unit."

Is that what -- that's what that says right there in Exhibit 3; right?

A Yes.
Q But that's not correct.
A No.
Q Correct is that Earthstone actually is a part of the North Wilson Deep Unit; right?

A That is correct. And I have spoken to him since then. He understands that.

Q Okay. And in this letter, further down he says that "We," meaning the state land office, "Discourages from drilling across unit boundaries, but understand and agree to Mewbourne's request for doing so in this case." That's what he said; right?

A Correct.
Q So even though they generally discourage it, because they thought at that time, at least, that Earthstone was part of the unit agreement, that they were approving your request?

A I'm -- I don't understand your statement or your question.

Q So even though we agreed the state land office generally discourages drilling across unit boundaries, but they approved your request here to drill across the North Wilson Deep Unit boundary based
on their understanding that Earthstone wasn't part of that agreement; right?

A I -- I cannot speak on behalf of the state, sir.

Q Now I'm showing you what's marked as -let's see here. This is Exhibit 1. And what we talked to earlier about -- this is Earthstone's response to Mewbourne's motion to dismiss these applications. Do you see that email in front of you?

A I see it.
Q And this is an email from Amanda Redfearn. You know who Amanda Redfearn is; right?

A Yes -- yes.
Q She's the landman for Earthstone in these applications; right? And this is an email from her to Scott Dawson at the state land office; right? Can you say that one more time?

A Yes.
Q Okay. And you've seen this before, because when Ms. Redfearn wrote this email to the state land office, she carbon-copied it to you; right?

A Yes.
Q You didn't include Amanda Redfearn or anyone from Earthstone on your correspondence with the state land office. Did you?

A No.
Q And in this email that you were copied on, Ms. Redfearn asked the state land office to hold back on its approval of your application for this or Earthstone's application if it's granted these pooling orders to approve of either of those for drilling these wells in front of the division today; right?

A It's really small, sir. I can't read it.
Q See if $I$ can fix it up for you. I don't know if $I$ can.

I'm reading the last paragraph, the last sentence -- or excuse me -- the penultimate paragraph, the last sentence there, that says, "We respectfully ask that you and the SLO reserve judgment with halting a position in this controversy until the parties have had the opportunity to present their positions to the OCD." Is that right?

A That -- that's what it says.
Q Okay. And to your knowledge has the state land office told Earthstone that it won't approve their application with the division, grant speed applications today?

A Sir, $I$ can't speak on behalf of the state.
Q I'm not asking you to. I'm asking you to testify whether the state land office has told you
that it will take a position on whether it will grant Earthstone the ability to drill these wells if the division grants its application today.

A All $I$ have is the letter that they sent me or the email that they sent me. That's what $I$ have.

Q Meaning what we just looked at as Exhibit 3 in Mewbourne's application, that email.

A Yes, sir.
Q You have no other communications from the state land office about Earthstone's applications today other than that email that's Exhibit 3?

A No.
MR. BECK: I'm now showing you what's exhibit -- this is the original Exhibit 2-2. I just want to point out -- well, hold on. This is going to confuse everybody, since we haven't updated 2.2. Give me one second here.

THE HEARING EXAMINER: Mr. Beck, do you want to take a five-minute break?

MR. BECK: We can, but I'm pulling it up right now, if we don't need to. So I'm fine just --

THE HEARING EXAMINER: Okay.
MR. BECK: All right. I don't want to
slow you down, but $I$ can pull it up.

BY MR. BECK:
Q Showing you a notice of filing additional exhibits that was filed last night. This is Exhibit 2-2. I was correct. But let's look at this.

When I look at the updated revised Exhibit 2-2 here, and it's providing a leasehold percentage interest in tract ownership for the North Wilson Deep Unit 8H. Do you see that in front of you?

A Yes.
Q And this exhibit was prepared by you, I assume. Is that right?

A Yes.
Q Then I'm looking at what's the third page in this exhibit. It's labeled as page 1 for the -- I guess this is for the North Wilson Deep Unit, number 9H. Do you see that in front of you?

A Yes.
Q You prepared this, as well?
A Yes.
Q Now I want to show you Exhibit A2 from Earthstone's application.

And if we look at the working interest owners on page 2 of Exhibit A1 -- or excuse me -Exhibit A2 for tract ownership, it reflects that there are uncommitted working interest owners Devon, Timothy
R. MacDonald, Maverick Oil and Gas Corporation highlighted in green. Do you see that?

A Yes.
Q I did not see anywhere in Mewbourne's application that Mewbourne reflected Timothy R. MacDonald or Maverick Oil and Gas Corporation as working interest owners in the lands to be pooled here. Is that right?

A That's correct. That has since been corrected, and we have proposed to those parties.

Q And where would $I$ find that in Mewbourne's exhibits pre-hearing packet here today?

A It's not submitted.
Q Okay. And nowhere in Mewbourne's exhibits or pre-hearing packet does it reflect that any notice of these applications was presented to those two parties, Timothy R. MacDonald or Maverick Oil and Gas Corporation; right?

A Right.
Q But I guess it's your position today that they were provided notice.

A They've been proposed.
Q When did that happen?
A -- virtual connectivity interruption --
Q I couldn't hear you.

A This week.
Q This week that happened?
A Yes, sir.
Q And was that -- let me ask, did Mewbourne provide those parties notice based on seeing Earthstone's preapplication or pre-hearing packet that included them as working interest owners?

A Based on a review of the internal takeoff.
Q The internal takeoff to Mewbourne?
A [No audible response.]
Q I saw you nod, but for some reason we're having trouble picking you up.

A Yes -- yes, sir.
Q And when was that takeoff?
A It's been an ongoing takeoff, sir, that we review.

Q And so sometime this week during this ongoing kickoff you saw that Timothy R. MacDonald and Maverick Oil and Gas Corporation were working interest owners, and you then provided them notice sometime this week. Is that right?

A Yes, sir.
Q And so do you agree with me when we're looking at the second page of Earthstone's Exhibit A2, which reflects Timothy R. MacDonald and Maverick Oil
and Gas Corporation as working interest owners, that is more accurate than what we see on the first page as Exhibit 2-2 to the North Wilson Deep Unit, which does not reflect them as owners. You agree with me?

A Yes.
Q And also here on the first page of Exhibit 2-2 in the application for the North Wilson Deep Unit H, it reflects that Mewbourne Oil Company is a working interest owner for the west half, east half of section 18. That's not accurate, is it?

A Those are blended numbers, sir.
Q What does that mean?
A I'm sorry. I can't -- you're talking about Exhibit $2-2$, the new one, or the one you're looking at?

Q The one I'm looking at. The new one does not have this first page, the section plat; right?

A Right.
Q I don't know if you knew that. And so when I'm looking at the section plat from the original exhibits and it says that Mewbourne Oil Company has a working interest in the west half, east half of section 18 , that's not accurate?

A That's not accurate.
Q When you testified on direct examination a
minute ago that with Devon Energy you have approximately 72 percent of support of the approval to drill wells or something along those lines, that calculation didn't include Timothy MacDonald and Maverick Oil and Gas's interests, did it?

A Yes. Their -- their percentages are so small, we just carry them.

Q So I guess that's a different answer than the question that $I$ asked. The question $I$ asked is when you calculated that 72 percent number, did that include --

A Yes -- yes, sir.
Q -- Timothy MacDonald's and Maverick Oil and Gas's interests? I didn't catch your answer.

A Yes, sir.
Q Okay. Have they agreed to participate in the wells or are they being force pooled by Mewbourne here?

A They have not agreed yet.
Q You talked about the surface use for Mewbourne and its application proposal. Do you remember that?

A Yes.
Q Let me ask if Earthstone -- or excuse me -if Mewbourne is successful in these applications,

Mewbourne will have to traverse off the path and across different sections in the land, for example, section 17 , to reach these wells. Is that true?

A I'm going to defer those questions to my geologist or engineer.

Q Okay. So if I asked you whether physical disturbance would be made to the land if these applications are granted, you wouldn't know the answer to that?

A Yeah. I'm going to defer those questions to the geologist or engineer.

MR. BECK: Okay. That's all the questions that $I$ have for you, Ms. Salgado. Thank you for your time.

MR. BRUCE: Mr. Examiner?
THE HEARING EXAMINER: Mr. Lowe, do you
have any questions for this witness?
MR. LOWE: Yes. Good morning. I just have a few questions.

Good morning, Ms. Salgado.
THE WITNESS: Good morning.
MR. LOWE: I just need to reassure that
I even heard it correctly. You were sworn in as a landman for the company. Is that correct?

THE WITNESS: Yes, sir.

MR. LOWE: Okay. Just want to reassure that on my side.

From what was stated -- well, what was presented to far, as $I$ understand it, there were two parties that were not initially noticed, but later on in the process of what you all were doing, you realized that, and you noticed those individuals this week. Is that correct?

THE WITNESS: Yes, sir. We -- yes, sir. That's correct.

MR. LOWE: Okay. And those two parties, $I$ guess from what I've been hearing, is Timothy MacDonald and Maverick Oil and Gas. Is that right?

THE WITNESS: Yes, sir.
MR. LOWE: So as that came about, you did provide that, I guess, exhibit to the OCD, as well, or are you going to?

THE WITNESS: I can. It was not included, but $I$ can send that.

MR. LOWE: Okay. And I think I heard you say that these two parties were a small percentage. Do you happen to have the -- do you know the amount --

## THE WITNESS: Sure. The percentage

that we show in each well for Maverick Oil and Gas is 0.010417 percent, and the percentage we show for Tim MacDonald in each well proposed was 0.03125.

THE HEARING EXAMINER: Ms. Salgado, are you taking this information from an exhibit?

THE WITNESS: I'm taking it from -yes, sir, my personal --

THE HEARING EXAMINER: I'm asking are you taking this information from any --

THE WITNESS: Oh, I'm sorry -- sorry. No, sir. We did not submit this in an exhibit.

THE HEARING EXAMINER: Okay. I'm going to give --

Mr. Lowe, when you're done, I'm going to give Mr. Beck a chance to cross-examine her on that point.

MR. LOWE: Okay.
Also, in reference to the subject matter pertaining to the state land office, that email that was presented by Mr. -- I forgot your name, sir --

MR. BECK: Beck. That's all right.
MR. LOWE: Mr. Beck. Was that an exhibit in any of the cases here, as well?

THE WITNESS: Yes, sir.

MR. LOWE: Okay. And that whole subject pertained to the unit and exclusion are the subject matter pertaining to the east half of section 18; right? But that was resolved. Is that what $I$ heard of the subject matter?

THE WITNESS: No, sir.
MR. LOWE: I couldn't hear what you stated.

THE WITNESS: No, sir. That -- that was not what that was.

MR. LOWE: Okay. Well, let's see here. I think those are the questions I have for now.

THE HEARING EXAMINER: Okay. Thank you, Mr. Lowe.

Mr. Beck, did you want to cross-examine on that point or not? I'm not sure if you're muted, sir.

MR. BECK: Thank you, Mr. Hearing Officer. BY MR. BECK:

Q Ms. Salgado, the document that you're looking at to get the working interest calculations for Maverick and Tim MacDonald, have you compared that with what's in Exhibits -- or excuse me -- what's in Exhibit A2 in Earthstone's application?

| 1 | A No. |
| :---: | :---: |
| 2 | Q And so you wouldn't know whether what's |
| 3 | reflected in Earthstone's application is the same |
| 4 | percentage interest as you're calculating on behalf of |
| 5 | Mewbourne? |
| 6 | A No. |
| 7 | Q If you know, how did you find that |
| 8 | percentage interest that Mewbourne calculated for |
| 9 | Maverick and Tim MacDonald? |
| 10 | A Are you asking for a formula? |
| 11 | Q I'm asking if you know -- |
| 12 | A No, sir. I don't -- |
| 13 | Q -- Mewbourne calculated -- |
| 14 | A I don't have those notes in front of me. |
| 15 | MR. BECK: All right. That's all the |
| 16 | questions I have, Mr. Hearing Examiner. Thank you. |
| 17 | THE HEARING EXAMINER: Okay. |
| 18 | Mr. Bruce, do you have redirect on the |
| 19 | cross-examination questions? |
| 20 | MR. BRUCE: Yeah. Just a couple |
| 21 | questions. Thank you, Mr. Examiner. |
| 22 | REDIRECT EXAMINATION |
| 23 | BY MR. BRUCE: |
| 24 | Q Ms. Salgado, I jotted the numbers down, but |
| 25 | I didn't quite get them accurate. But if you're |
|  | Page 132 |

looking at the MacDonald and the Maverick numbers that you gave a verbal answer to, that totals up to about maybe a little more than 0.04 percent interest in each well unit?

A That's correct.
Q And if you can look at Exhibit A2, second page, I'll represent to you that the combined MacDonald and Maverick working interest that Earthstone sets out comes to a little about 0.03 percent interest.

So the numbers are not significant. Are they?

A No.
Q And whatever number is used, yours or theirs, with Devon's support, you still have 72 percent approval of Mewbourne's proposals. Is that a fair statement?

A Yes, sir. That's approximate. Yes.
MR. BRUCE: Okay. Let me just check for a second here, Mr. Examiner. Believe I'm done. One final question.

BY MR. BRUCE:
Q You were asked about Earthstone's email to Scott Dawson at the land office. After that, did the land office ever retract Mewbourne's approval, which
is Mewbourne's Exhibit 3?
A No.
MR. BRUCE: Thank you.
That's all I have, Mr. Examiner.
THE HEARING EXAMINER: Okay. Mr. Beck,
is there any cross-examination on the redirect?
MR. BECK: No. Thank you.
THE HEARING EXAMINER: Okay.
Let's take a break. Let's take a --
it's 11:04. Let's take a break to 11:10, and we'll come back with your next witness, Mr. Bruce.

MR. BRUCE: Thank you.
THE HEARING EXAMINER: Thank you.
(Off the record.)
THE HEARING EXAMINER: On the record.
Mr. Bruce, do you want to call your second witness?

MR. BRUCE: I will, Mr. Examiner. Let me grab my exhibits. Okay. I call Jordan Carrell. And his affidavit is -- or self-affirm statement is Exhibit 5. And he's previously testified numerous times before the division.

I would submit him as a qualified expert petroleum geologist without objection.

THE HEARING EXAMINER: Okay.

Mr. Beck?
MR. BECK: I seem to be having some trouble with my camera. I might stop it for a second. I'm still here audibly, and I don't have any objections.

THE HEARING EXAMINER: Very good.
Mr. Carrell, you are admitted as an expert. Please proceed. You're under oath.

DIRECT EXAMINATION
BY MR. BRUCE:
Q You've submitted the usual exhibits, structure map, and a cross section. I'd ask you to look at your Exhibit 5A for just a little while, which is the structure map.

A Okay, sir. Yes, I have it.
Q Yeah. One thing about surface use out here, you obviously -- the other unit wells are located immediately to the east of the lands that we're here for today. And those wells, in which direction were they drilled?

A Those wells were drilled south from the -the center of section 17 .

Q Okay. But were they drilled from the north to the south?

A Yes, sir. They were drilled from the north
to the south.
Q Okay. So as a result, Mewbourne's surface facilities are up in the south half of section 17. Is that true?

A Yes, sir.
Q And so they're nearby. In what direction are you proposing to drill your two wells --

A We're proposing --
Q -- in these cases?
A I'm sorry. In this case we're proposing to drill our wells from the south to the north from surface in section 18 up into section 7 .

Q Okay. So your existing surface facilities will be nearby, including stuff, like, pipeline connections, et cetera?

A Yes, sir.
Q Now looking at Exhibit $5 B$ as in boy, you have a cross section of the second Bone Spring sand.

A Yes, sir.
Q What part of the second Bone Spring sand are you going to -- do you desire to complete the well in?

A Yeah. Our plans for the North Wilson Deep Unit State Com numbers 8 H and 9 H are both to target the lower second Bone Spring sand, which I have a red arrow pointing towards on this cross section, A to A

```
prime.
```

We think that that lower second sand looks consistent, and thick, and forest. We drilled several wells in the area in that same zone, and that is our plan for the east half of 18 --

Q So the lower second Bone Spring, in your opinion, is more consistent, number one. Is it also thicker than the upper Bone Spring zone?

A Yes, sir. I believe so.
Q Now, is there a well nearby that was drilled -- and I don't know if it was drilled by you or not -- that was drilled in the upper sand in Bone Spring?

A Yes, sir. One reason that we decided not to target the upper second sand here, like Earthstone has proposed, is in section 13, Matador has drilled their Bruce Keplinger well. And they targeted the upper second sand.

Q Okay. Hold on a minute. You said section 13. Is that over to the west of the wells we're here for today?

A Yes. One section immediately to the west of 18.

Q Okay. Then go ahead.
A That well targeted the upper second sand.

It's unobjectively a -- it's a poor well. And we have it for the first 12 months of cumulative production at about 11 barrels of oil per foot, which is nearly half of some of our -- our lower second sand wells in the area to the south, the Dolly Varden wells.

Also, based on this -- this cross section here, A to A prime, the reason we wanted to target the lower second sand was the -- the upper second sand seems to be not as uniformly thick.

In certain areas, such as the east half, east half of section 18 , there's a well where the upper second sand looks half as thick as it does in some of this other areas.

We saw that there was more risk in trying to -- to wine rack lower second sand and upper second sand. We think that the -- the better targets here are two lower second sand wells.

Q Earthstone, also in their presentation, said they want to -- they proposed also drilling first Bone Spring wells. Does Mewbourne object to drill first Bone Spring wells?

A No, sir. We'd actually -- we would like to drill first Bone Spring sand wells here, as well, and we plan to if we're able to become an operator of this -- this -- these units.

The problem is we've drilled first Bone Spring sand in the area, we have a well just to the north in section 6 called the La Trucha [ph] well. It has had high H2S. The last time we tested it was in August. It had 6,000 parts per million of H2S.

And so for the last couple years we've been working with a third party to build infrastructure here for sour takeaway. And we -- we plan to have that infrastructure construction constructed, or hopefully they'll be able to take that next year.

So we would like to come back at a later date and drill first Bone Spring sand here.

Q Okay. And approving an order with just a second Bone Spring sand well doesn't preclude Mewbourne from using that order to subsequently drill a first Bone Spring well. Does it?

MR. BECK: Object to foundation.
THE HEARING EXAMINER: Hold on,
Mr. Bruce.
MR. BRUCE: Okay.
THE HEARING EXAMINER: Mr. Beck, you're objecting to the foundation --

MR. BECK: Yeah. I don't know if the witness knows the answer to this question. If he does, he can answer it, but I think he should be asked
a preliminary question first.
MR. BRUCE: Mr. Carrell, you've been -THE HEARING EXAMINER: Mr. Bruce, what's your response?

MR. BRUCE: Could I lay a foundation then?

THE HEARING EXAMINER: Of course. Then
I'm going to sustain the objection, and so you can rephrase your question. BY MR. BRUCE:

Q And, Mr. Carrell, you've been involved in -have you been involved in quite a number of forced pooling hearings on behalf of Mewbourne?

A Yes, sir.
Q And so you've done the geology. You've also reviewed a number of these pooling orders, because you have to know what the division land -- was at. Is that a fair statement?

A Yes, sir.
Q And often times people do what Earthstone is doing, proposal of a unit with one, two, or even three Bone Spring wells in the well unit. Do you agree?

A Yes, sir.
Q But if you only propose one, based on your experience, can you still propose additional, if you
want to call them, in-field wells in another Bone Spring zone?

A Yes, sir.
Q So just because you're only seeking at this time to get approval for a second Bone Spring well, that pooling order will cover subsequent wells?

A Yes, sir. Correct.
Q Thank you. Let me see. Oh, another thing. You mentioned that Keplinger well, that Matador well. You said that's a very -- you said it's a very poor well, words to that effect.

A Correct.
Q Was there a large frack put on that well?
A Yeah. It's similar to what our companies are -- Earthstone and Mewbourne are proposing here. I believe it was about 2,000 gallons per foot and close to 2,700 pounds of sand per -- per foot.

Q And that really didn't help? Well, of course it helped, but the results in the end, were they good?

A It doesn't -- no. I would say no. But I would say $I$ think the geology of that upper second south Bone Spring sand is -- it's just too variable.

You have to look at it on a -- a proration unit basis, and even though, yeah, you can -- you can
drill and put a modern frack on it, it doesn't mean you're going to make a good well.

You have to look at the geology, I think, the ferocity, the thickness. And in this case, we don't think that the upper second sand looks as good as the lower second sand, especially in the east half, east half where Earthstone proposes to drill a well there.

Q Before Mewbourne started drilling in the -area -- virtual connectivity interruption -- any or very much development over the past number of years, Bone Spring development, in this general area?

A No, sir. This area was -- as far as horizontal drilling, was very slow until we started to put together this unit in the area for 2135.

Q And that kind of spurred other people to jump on the bandwagon. Would that be fair?

A Seems like yes, we had spurred on more activity in this area.

Q And you keep a good eye on not only what Mewbourne is doing as part of your job, but do you also keep an eye on offsetting wells, offsetting operators, offsetting production?

A Yes, sir.
Q In your opinion, is it better to drill

2-mile wells or even 2 -mile plus wells than 1 -mile wells in this area?

A I believe it's much better to drill 2-mile laterals or extended laterals.

Q And keeping an eye on development, at one point could Chisholm -- and actually, for fairly long period of time, could they have drilled 2-mile laterals in sections 18 and 19?

A Yeah. They -- they could've worked out something with Matador in 19, and potentially have drilled 2-mile laterals in 18 and 19 going south.

Q But they never took advantage of that, and they only responded when Mewbourne proposed its wells.

A Correct.
Q Does it seem that they do not want to drill 1-mile laterals?

A I would say based off of them trying to pool 2-mile laterals, it's evident that they don't want to drill 1-mile lateral.

Q Mr. Carrell, could I refer you to what's been marked Mewbourne Exhibit 12? And I'll just have you just briefly -- at this point. Just identify what it is.

A Exhibit 12 is a cross section B to B prime showing first Bone Spring and second Bone Spring from
east to west across the proration units.
Q And was this prepared by you?
A Yes, sir.
Q Does this show why -- another example of why
Mewbourne wants to drill the lower second Bone Spring?
A Yes, sir. It shows that that middle well, 18A, which is in the east half, east half of the proration unit --

MR. BECK: Objection. Mr. Hearing Officer, this is one of these exhibits that was untimely disclosed, and we've objected to. So I'm objecting to any testimony about this exhibit.

THE HEARING EXAMINER: Okay.
Mr. Bruce?
MR. BRUCE: Mr. Examiner, take a step back with Mr. Carrell.

BY MR. BRUCE:
Q Mr. Carrell, did you review Earthstone's cross sections?

A I did. Yes, sir.
Q Do you think that they were adequately represented the status of the second Bone Spring in sections -- in the east half of sections 18 and 7?

A I do not. As you'll see through their exhibits, their cross sections, most of the wells that
they show on the line of the cross section are in the east half of 7 and 18 -- or sorry -- excuse me -- the west half of 7 and 18.

And they specifically left out the well in lot 18A, which was the -- the Packer [ph] 18 State 1, which is on my cross section A to A prime attachment 5B. It's the third well.

And you can see in that -- that well, that upper second sand there is, from my account, approximately 36 feet of sand versus the other three wells on the -- on the cross section show approximately 60 feet of -- of sand.

So -- and those -- those other three wells are all in the west half of the east half. We -- we believe that -- that to be a riskier target.

Q And until you got to review Earthstone's -exhibits, you were not aware that they had not included that well in their cross section?

A Correct.
THE HEARING EXAMINER: Mr. Bruce, what's your argument?

MR. BRUCE: My argument is that this is a rebuttal exhibit to theirs to show that the upper second Bone Spring is not as good as the third Bone Spring. It was prepared and submitted. The geology
out here is something that $I$ don't think Earthstone's geologist is surprised by.

So I don't think there's the -- there is not -- there is no unfairness in presenting them, because their geologist can talk about it too. It's different than the Exhibit 10 that you disallowed.

THE HEARING EXAMINER: Okay.
Mr. Bruce, the argument --
Mr. Beck, the argument is that this is a rebuttal exhibit, and that they could not have prepared this until they saw Earthstone's exhibits. Your response?

MR. BECK: Well, obviously I'm
hamstrung, since $I$ just got this. But let me ask a couple questions of Mr. Carrell, if I may, Mr. Hearing Officer.

```
THE HEARING EXAMINER: Go ahead.
                                    CROSS-EXAMINATION
```

        BY MR. BECK:
    Q Mr. Carrell, and forgive me for my ignorance here, but it looks like what you're referring to here in Exhibit 12, 18A is a cross section of the Nearburg [ph] Producing Packer [ph] 18 State 1. Is that right?

A Yes, sir.
Q Okay. And when was that well drilled?

A Don't know.
Q Okay. How did you get this cross section?
A Trix [ph] mapping software.
Q Yeah. Okay. And could you have gotten this cross section from the graphics mapping software you're talking about two weeks ago, September 7th?

A Yes, sir.
Q And you got this because it shows a well in the east half of section 18; right?

A Yes, sir. This well -- I mean, my cross section A to A prime does too, so we could go off of the other.

Q And the cross section A to A prime that we can go off of either, I assume that's what you're referring to is represented in Exhibit 5B.

A Yes, sir.
THE HEARING EXAMINER: Hold on,
Mr. Beck. Let me get to Exhibit 5. Five B. It's on its side, so it's hard to see it. So, Mr. Beck, back to Exhibit 5B. Excuse me.

Mr. Carrell, you're saying -- what are you saying in relation to Exhibit 5B and Exhibit 12?

THE WITNESS: Yeah. It sounded like Mr. Beck was saying that that well in lot 18A -- or he was bringing up -- I -- I was just pointing out that
that well is on both cross sections. So I could refer to it on the rebuttal cross section or the original submitted cross section.

THE HEARING EXAMINER: Mr. Beck --
MR. BECK: So every -- sure. Thank
you, Mr. Hearing Officer.
BY MR. BECK:
Q So, Mr. Carrell, everything that you're talking about in 18A, the Packer [ph] that you were just discussing with Mr. Bruce, that's reflected in Exhibit 5B and the same 18A Packer [ph] 18 State 1; right?

A Say that again.
Q Everything that you discussed with Mr. Bruce about Exhibit -- or excuse me -- in Exhibit 12 for the Packer [ph] 18 State 1 was also reflected in Exhibit 5B, the Packer [ph] 18 State 1 there in 18A?

A That well is in both exhibits. Yes.
Q Okay. So I guess why do we need Exhibit 12?
A Exhibit 12 makes it a little bit clearer in breaking out the upper second sand and the lower second sand. So I have those highlighted in green and in brown on Exhibit 12 .

And it also shows the first Bone Spring sand and the -- the vertical separation between the first

Bone Spring sand and in the lower second sand with an approximate vertical separation of 750 feet, which shows that we don't believe that these need to be codeveloped.

It's not going to hurt production to come back later and drill the first Bone Spring sand.

Q So other than the highlighting and zooming in, is there anything in Exhibit 12 that you think Exhibit 12 adds that's not reflected in Exhibit 5B?

A Yes, sir. The first Bone Spring sand, the vertical separation there between our lower second sand, and then highlighting showing just how that one particular well in the east half, east half of the proration unit is thinner than surrounding.

Exhibit 5B shows the same thing. It's just not highlighted, so it's harder to see.

Q And everything -- let me ask this question. When was the first time that you read Earthstone's applications in case numbers 23475 and 23477?

A I can't remember the exact date. It was earlier -- earlier this week.

Q Earlier this week was the first time you read those?

A Could find out. I could look at my email and see when $I$ was given those.

Q No. That's all right. It was sometime earlier this week, meaning Monday, the 18th, Tuesday, the 19th, something like that?

A It could've been -- it could've been Friday. I'd have to look to see exactly when I got those.

Q Okay. And so when you got those applications or the case numbers Friday, the 15th, at the earliest or Monday, the 18th, or Tuesday, the 19th, that's the first time that you knew that Earthstone was targeting the upper first or the -- or the -- or excuse me, the first Bone Spring or the upper second Bone Spring?

A No, sir. I believe they sent us well proposals before that.

Q And did you see those well proposals?
A I did. Yes.
Q Okay. And when you saw those well proposals could you have looked at those well proposals and created what we see in Exhibit 12?

THE HEARING EXAMINER: I didn't hear
the answer.
THE WITNESS: Oh, sorry.
I -- I could've made -- he -- I believe
you asked if $I$ could have made -- this cross section --

THE HEARING EXAMINER: I know what the question was, Mr. Carrell. I know what the question was. I just didn't hear the answer.

THE WITNESS: Yes. The answer was yes. THE HEARING EXAMINER: Okay. Thank you, sir.

MR. BECK: And that's all I have, Mr. Hearing Examiner.

Just an example of the fact that I -probably my ignorance shows the prejudice that Earthstone is under in not knowing what this exhibit reflects, and the fact that this exhibit could've been created not only over a week ago had he been shown the application, but could've been created -- and again, I'm not the one who sent out the applications, but my recollection is that it was sometime in the spring of this year, March, which would've been six months ago. And obviously I wouldn't expect we would've created those by then, but $I$ would've expected that Mewbourne would have created these exhibits in compliance with the prehearing order and submitted them by September 14 th.

THE HEARING EXAMINER: Mr. Beck -- what
I understand from --
Hold on, Mr. Bruce.

Mr. Beck, what $I$ understand from
Mr. Bruce is that this Exhibit 12 -- that the information on Exhibit 12 is already encompassed by Exhibit 5B. The difference here is the highlighting. Did I understand that correctly?

MR. BECK: I think that that's part of it. I think another part of it -- and again, I'm learning this just a few minutes ago, the same as you are, Mr. Hearing Examiner, for this very reason. I understand that Exhibit 12 also shows the first Bone Spring sand formatting, which is not shown on Exhibit 5-B.

THE HEARING EXAMINER: Mr. Carrell, is that correct?

THE WITNESS: That is correct.
THE HEARING EXAMINER: Okay. And why did you add that?

THE WITNESS: To show the -- the vertical separation of the first Bone Spring sand and the second Bone Spring sand, the lower, where we plan to target as 750 feet.

The reason to show it was because we think that's a sufficient enough separation where we -- these zones don't need to be codeveloped. We can come back at a later date, drill the first Bone

Spring sand, and not worry about any type of depletion issues there.

THE HEARING EXAMINER: Mr. Bruce?
REDIRECT EXAMINATION
BY MR. BRUCE:
Q Mr. Carrell, just one follow-up question.
You never saw anything about the need to codevelop or depletion from one sand to the other. Did you know anything about that until you saw their exhibits?

A $\quad$ No.
Q So the newest part of this -- or the only real new part is it just shows the 750 feet of vertical segregation. And so there's no need to develop the first at the same time as the second.

A Correct.
THE HEARING EXAMINER: Mr. Beck --
Mr. Bruce, please don't keep asking questions eliciting testimony from this witness on an exhibit that hasn't been admitted yet, or else I'll have to strike it.

Mr. Beck, ultimately what Mr. Bruce and his witness are testifying to is they didn't realize the need to show that separation until they saw your exhibits.

MR. BECK: And I'm sure that that's one
way to look at it when you're being led through that testimony.

But the applications both identify -meaning both Mewbourne's applications -- identify that Mewbourne was targeting the first Bone Spring and the second Bone Spring, and that it was targeting the upper second and the lower second in the wine rack formation.

So this testimony could have been there in the first place. As far as what separates the testimony from what's reflected in Exhibit 12, I think that the testimony that we had there at the end, that you pointed out went a little bit too far, is fine.

I think that that Mr. Carrell was
competent to testify to. I think a foundation has been developed that he can testify to that.

And I don't think that Earthstone has a solid basis to object to that testimony coming in, as opposed to Exhibit 12, which could have been developed and could've been presented timely by September 14 th.

That's what I think -- that's what I think is improper, and they were on notice that this needed to be filed beforehand.

THE HEARING EXAMINER: Mr. Bruce, the argument is that you and your client should not have
been surprised, and that this Exhibit 12 is not timely, because had you and your client reviewed the applications, you would have seen this development. What is your answer to that?

MR. BRUCE: Well, Mewbourne certainly knew that they were proposing the first Bone Spring well, but they didn't see anything about this need to immediately codevelop, because there are new allegations not in their application that you have to codevelop them promptly to avoid any type of reservoir drainage from, say, the second to the first or first to the second, whatever you're looking at.

THE HEARING EXAMINER: Okay. All
right. So it's the co-development, Mr. Beck, that prompted their submission of Exhibit 12. What do you say to that?

MR. BECK: I say that, again, this is showing my ignorance, because I'm just being presented with this. I don't know if that's what Mr. Asmus, our geologist, would say. And that's showing that I am not the expert here, and he is, which is why he's testifying to this sort of stuff.

So I guess what I'd say is that if that is accurate, Mr. Asmus can probably tell us what it is. I ask that -- I'd ask the hearing officer just
reserve admitting Exhibit 12 until we hear from Mr. Asmus, because, again, I just -- I'm not prepared to answer that question right now.

THE HEARING EXAMINER: Okay. That's
fair. I'm not going to make a ruling on Exhibit 12 at this moment, Mr. Bruce. You have a good argument. And if that argument withstands the exhibits, then $I$ will let it in.

I'm also going to give Mr. Beck and his client opportunity to, you know, examine exhibits, so that they don't feel as though they're surprised by this late submission.

So why don't you continue with your direct examination of this witness? You can discuss Exhibit 12, but I haven't admitted it yet.
(Exhibit 12 was marked for
identification.)
MR. BRUCE: Okay. Don't think that I have too much more from this witness before $I$ turn him over. Let me just check my notes, please, sir.

THE HEARING EXAMINER: Of course.
MR. BRUCE: That's all $I$ have at this time, Mr. Examiner.

THE HEARING EXAMINER: Okay. Thank you, Mr. Bruce.
Mr. Beck, any cross-examination for
this witness?
MR. BECK: Yes, Mr. Hearing Examiner.
Thank you.

## RECROSS EXAMINATION

BY MR. BECK:
Q Mr. Carrell, I'm going to ask you about Exhibit 5A and 5B. And bear with me just a little bit.

Your testimony is that one reason -- or I guess the reason that Mewbourne isn't targeting -isn't doing a wine rack formation of these wells is because it believes that the upper second Bone Spring sand formation is too inconsistent. Is that right?

A Yes, sir. In the east half of the unit.
Q And that's where both of Mewbourne's wells are being proposed and all four of Earthstone's wells are being proposed, right, that you saw?

A Sorry. I meant the -- the east half of the east half, but yes.

Q And some of that -- let me ask. That conclusion that the upper second is inconsistent is based off of these cross sections of existing wells that you have in Exhibit 5B. Is that right?

A Yes, sir.

Q But none of these cross sections that you have in Exhibit 5B give the cross section of where Earthstone's proposed -- make sure I'm asking this correctly -- proposed outland 187214 H is proposed to be drilled. Is that right?

A My logs go through the outland -- units. Is that what you're asking?

Q Right.
A That is correct.
Q So with the inconsistency, you don't know and we don't know for certain what kind of production we could get from that proposed outland 187214 H well; right?

A Are you referring to the -- the west half of the sections?

Q The east half.
A I apologize. All of my wells go through the east half of the section. I apologize. I thought you were referring to the west half for some reason, because it shows in the inset map and on attachment 5A, the map, my line of cross section.

Q So these reflect the portion of the upper second Bone Spring that Earthstone is proposing to drill through. Is that what you're saying?

A Yeah. The third well on the lateral is
directly where they -- where that upper second sand is the skinniest.

Q And you talked about Earthstone drilling 2-mile wells versus 1-mile wells with Mr. Bruce; right?

A Yeah.
Q And you know that in both of its applications, Earthstone is proposing 2-mile wells; right?

A Correct. Yes, sir.
Q And you said that Earthstone could've worked out something with Matador beforehand to drill into section 19?

A Seems like that could've been an option, yeah, prior to Matador drilling wells in section 19.

Q Do you know if Earthstone and Matador are in negotiations about that? Whatever you said didn't come through, or at least I didn't hear it, so --

A I'm sorry. I said no. I don't know if they ever had negotiations.

Q All right. And what about Chisholm and Matador? Do you know if they ever had negotiations?

A I do not know that.
Q Okay. So you don't know one way or the other whether Chisholm or Earthstone actually agreed
or tried to agree with Matador about drilling into the section 18?

A Section 19 or 18? I -- I don't know that. No.

MR. BECK: That's all I have. Thanks,
Mr. Carrell.
THE HEARING EXAMINER: Mr. Lowe?
MR. LOWE: Yes, sir. Are you giving me
the opportunity to ask questions?
THE HEARING EXAMINER: Yes, sir.
MR. LOWE: Okay.
Good afternoon, Mr. -- what's your name here -- Carrell. Mr. Carrell. Sorry. Jordan Carrell. You were a sworn witness, and you were sworn in as a geological witness.

THE WITNESS: Yes, sir.
MR. LOWE: Okay. I just want to reassure where I'm at on all this. I just had a few -- a brief question for you. I think it was stated up front that the wells of interest here -that I think you stated that the first Bone Spring sands will be eventually drilled in this location.

When do you intend to do that? And does that pertain to the outcome of this case?

THE WITNESS: We intend to get
infrastructure built in the area that can take $H 2 S$. So the first Bone Spring sand here is known to have high H2S in it.

And we'd also -- yeah. We would like to drill more first sand wells here, so we're in negotiations with a third party to put infrastructure in here for sour takeaway, which should come to fruition next year.

And so at that point we would be -- you know, if this rules in our favor, we would be able to drill first Bone Spring sand in these locations.

MR. LOWE: Okay. And I think I wanted to reassure where that determination came from. I think $I$ heard you verbalize that you were going off of evidence adjacent to this section to the west, $I$ think it was, from the wells located there. Is that what $I$ understood?

THE WITNESS: Our first Bone Spring sand well that has had $H 2 S$ in it is directly north in section 6 on -- on Exhibit 5 -- or attachment 5A. Is that what you're referring to?

MR. LOWE: I'm trying to get my -- my exhibits up here. I don't know what map I was referring to or looking at under the multiple exhibits here that $I ' m$ trying to look through.

But I thought that's what I heard, that you all are wanting to go for the first -- or you didn't -- I think -- I don't recall if it's -- the reason why you didn't want to go with the first Bone Spring. And I think the term -- it was stated because it was the high H2S and basically what you stated just now.

I think that's kind of where we're going at. Also, another question, I'm not too sure about the titles of these cases that are having been presented.

Earthstone is coming forward with a nonstandard spacing unit request as well too. Is that what I -- is that still going on?

THE WITNESS: Is that a question for me? Sorry.

MR. LOWE: Yes.
THE WITNESS: Oh. I -- I believe so, if that's what the -- the title says. I don't -- I don't have their -- their stuff in front of me.

MR. LOWE: And it's kind of hard for me to look at all these exhibits with the slow computer on my side. But I'm trying to find out the C1O2s pertaining to all these -- well, the subject matter for both operators here.

I guess from what I'm seeing Earthstone and Mewbourne are trying to get the east half of these two sections; correct?

THE WITNESS: Correct.
MR. LOWE: And in that sense, I guess the question is posed to Earthstone, what portion of those -- is that nonstandard spacing unit request pertaining to?

THE HEARING EXAMINER: Mr. Lowe, I'm confused. Are you asking Mewbourne's witness a question that is directed to Earthstone?

MR. LOWE: No. It's just my question. Well, you know what? I could wait until the end. Let me --

THE HEARING EXAMINER: I'm not --
MR. LOWE: Yeah.
THE HEARING EXAMINER: Mr. Lowe, I'm not suggesting when you ask your question, but $I$ didn't -- by what you said, it didn't sound like that question was meant for this witness.

MR. LOWE: Okay. Well, it could be made for the landman maybe then. But --

MR. BECK: Yeah. I think Earthstone's landman, Ms. Redfearn, can answer those questions, Mr. Lowe. And I can try to make it a point to ask
her. But it's my understanding, and I think she'll confirm this, is that Earthstone is not requesting nonstandard spacing unit.

MR. LOWE: Okay. If that's the case, then --

THE HEARING EXAMINER: Mr. Lowe, this is not a witness. The attorney is not a witness. So if you want to consider evidence later, and I have to consider evidence later, please direct that question to the proper witness.

MR. LOWE: Okay. Can do that then. Those are the only questions I have.

THE HEARING EXAMINER: Okay.
MR. LOWE: Thank you.
THE HEARING EXAMINER: Thank you, Mr. Lowe.

Mr. Bruce, are there any redirect questions for this witness? Mr. Bruce, are you still here?

MR. BRUCE: Forgot to unmute myself, Mr. Examiner.

FURTHER REDIRECT EXAMINATION
BY MR. BRUCE:
Q The depths in Mewbourne's wells from what's in your exhibits, the AFEs and the pooling checklist,
is somewhere -- what is the vertical depth?
A For our -- our wells?
Q Yes.
A Got to be approximately -- let's see -right around 10,000 feet, close to.

Q And I'm looking at this -- of course this is a new exhibit, but the landman's affidavit contains, as Exhibit 24, the AFEs for the wells. And those exhibits show something like -- somewhere in the 9850 range. Does that seem familiar?

A Yes. I have their -- oh, okay. Yeah.
Q Okay. Now if you can dig it out, I would like for you to look at Earthstone Exhibit A-3. Let me know when you've found it.

A I have it here in front of me.
Q Okay. That's a proposal letter that all the operators -- of the type that every operator sends out, and you've seen those before. Haven't you?

A Yes, sir.
Q If you go back about six pages, they have their AFEs attached.

MR. BECK: Mr. Hearing Examiner, this
is definitely outside the scope of my cross-examination, and I think it's outside the scope of what Mr. Lowe asked.

MR. BRUCE: Well --
THE HEARING EXAMINER: Mr. Bruce?
MR. BRUCE: Well, it goes to a key point, and $I$ can bring it up later when the decision is made on Exhibit 12, or I can get it out of the way now.

THE HEARING EXAMINER: Okay. So this has to do with whether or not Exhibit 12 was a surprise and it is a true rebuttal exhibit?

MR. BRUCE: Yes.
THE HEARING EXAMINER: Okay.
And, Mr. Beck, why is that outside the scope?

MR. BECK: Well, I didn't know where this was coming from. I didn't ask about Exhibit 12 for the reason that $I$ don't think it should be admitted.

But I certainly think that it makes sense to get this out of the way now to see if my understanding is incorrect or if there's something new that I wasn't aware of, so I'm --

THE HEARING EXAMINER: Mr. Bruce, I didn't know where you were going with this either, but now that you've clarified, I'll override the objection.

But please let's get to the point quickly, because we're going to take lunch after this. MR. BRUCE: Okay.

BY MR. BRUCE:
Q Mr. Carrell, there's four AFEs. Forget about the first Bone Spring. But the final two AFEs are for their proposed second Bone Spring wells. Is that correct?

A Yes, sir.
Q And over in the upper right hand, there's a a little paragraph talking about the wells. What do both of their second Bone Spring sand AFEs state the approximate completion total vertical depth is?

A They both say the same depth, 10,400 vertical feet, which would be approximately in the lower second sand.

Q And it's not where they're proposing right now?

A No. So yeah. The -- the first time I would've realized that they were targeting the upper second sand was when they filed their -- their prehearing exhibits.

MR. BRUCE: Okay. That's where I'm going with that, Mr. Examiner.

THE HEARING EXAMINER: Okay. Thank
you, Mr. Bruce.
Mr. Beck, did you have anything to -did you have any questions for this witness or any argument further?

MR. BECK: Yeah. I guess -- I think I can make this brief, because $I$ know you want to take lunch.

FURTHER RECROSS EXAMINATION
BY MR. BECK:
Q Mr. Carrell, does Exhibit B -- I'll get to it. Does Exhibit 5B include the upper second Bone Spring sand formation?

A Exhibit 5B, is that my cross section? Sorry. Yeah. Right here. It does include the upper second Bone Spring sand in it.

Q Okay. So even though that the AFE that you may or may not have reviewed does not include that upper second Bone Spring formation, that would include and is included in Exhibit 5B; right?

A The information about Earthstone's target is not included in 5B.

Q That's not the question I asked. I asked -you've talked with Mr. Bruce about how the two second Bone Spring AFE proposals of Earthstone both target the lower second; right?

A It appears so. Yes.
Q And what changed was targeting the upper second. Yes?

A It seems like that has changed. Yeah.
Q Okay. But both the upper second and lower second Bone Spring formation are captured on Exhibit 5B?

A Yes, sir.
MR. BECK: Okay. That's all I got.
THE HEARING EXAMINER: You know,
Mr. Beck, I understand the point you're trying to make, but I'm going to let Exhibit 12 in. I'm letting it in, because $I$ can see the confusion. I can see why it's been submitted.

I don't think it's so surprising that you can't deal with it. I'll give you the time you need to deal with it. We'll take a lunch break now. And if your witness needs additional time to consider Exhibit 12, you let me know and we'll add that time in here, Mr. Bruce.

So I am admitting Exhibit 12 into
evidence. I am not admitting 10 and 11 at this time.
Mr. Bruce, how many more witnesses do you have?
/ /
(Exhibit 12 was received into
evidence.)
MR. BRUCE: I have one.
THE HEARING EXAMINER: You have one. How -- long will that direct examination take?

MR. BRUCE: That direct examination -get them admitted and ask about half a dozen -- five or six questions. So --

THE HEARING EXAMINER: Okay. Mr. Bruce, is this your rebuttal witness?

MR. BRUCE: Yes.
THE HEARING EXAMINER: Well, I've never heard of calling a rebuttal witness in your case in chief.

MR. BRUCE: Well, $I$ can leave it until the end, and that's fine.

THE HEARING EXAMINER: I think that's what we're going to do here.

MR. BRUCE: Okay.
THE HEARING EXAMINER: So do you have any other evidence to admit in your case in chief?

MR. BRUCE: That's it. Yeah. I believe you admitted original Exhibits 1 through 9, and Exhibit 12, and Exhibit 11 is -- until the end. So I -- nothing further at this time, Mr. Examiner.

THE HEARING EXAMINER: Okay. So you're resting your case then?

MR. BRUCE: Correct.
THE HEARING EXAMINER: Okay. Very good.

So, Mr. Beck, we will come back after lunch for your case.

How much time do the parties -- I mean, I don't need a full hour for lunch. I don't know how the parties feel. Is it okay to come back at one o'clock and pick this up?

MR. BECK: I think it should be, Mr. Hearing Examiner, with the exception of if I need some more time -- Exhibit 12 -- whatever we may have --

THE HEARING EXAMINER: Sure. We've already -- yeah. I've already said that. So you have that in your back pocket if necessary.

MR. BECK: One sounds reasonable.
THE HEARING EXAMINER: Okay. Very good. So we have -- we're taking about a 52-minute lunch, and we will reconvene at one o'clock today for Mr. Beck's case in chief. Thank you.

MR. BECK: Thanks.
(Off the record.)

THE HEARING EXAMINER: On September 21st, we are in the middle of a contested hearing. Mewbourne has put on its case in chief. We are now waiting for Earthstone to put on its case in chief.

Its witnesses have been sworn in. But before a witness begins testimony, please state your name and spell it for the record. It'll make it a lot easier for the court reporter later.

Mr. Beck?
MR. BECK: Yeah.
THE HEARING EXAMINER: The forum is yours.

MR. BECK: Thank you, Mr. Hearing Examiner. Earthstone calls the landman, Amanda Redfearn.

THE WITNESS: Hello. Mr. Hearing Examiner, as you requested, my name is Amanda Redfearn, spelled $A-M-A-N-D-A . ~ L a s t ~ n a m e ~ R e d f e a r n, ~$ $R-E-D-F-E-A-R-N$.

MR. BECK: Mr. Hearing Examiner, Ms. Redfearn's experience is outlined in paragraph 3 of her direct testimony, and she's previously been accepted as a petroleum landman expert by the division, and Earthstone tenders her as a petroleum landman expert for these matters today.

THE HEARING EXAMINER: Mr. Bruce, any objection?

MR. BRUCE: No, sir.
THE HEARING EXAMINER: She is accepted as a expert. Please proceed.

DIRECT EXAMINATION
BY MR. BECK:
Q Ms. Redfearn, I know that a lot of what you've prepared for this hearing is in your packet, and I'm not going to talk with you about a lot of those.

What I want to highlight is what you found first when you were preparing this application -- this competing application in terms of the negotiations between Chisholm and Mewbourne coming before the division.

What's your understanding -- or I guess not your understanding. How did Earthstone come to be a mineral interest owner in the sections proposed to be drilled in these applications?

A Sure. Yes. So we came to our interest by the acquisition of Chisholm in 2022, and succeeded in their interest.

Q And how long after that did Earthstone decide to proceed with its development plan in these
two applications?
A We -- shortly thereafter I didn't -- these areas were identified prior to diligence or during diligence.

And then, you know, when we started doing our applications for this and negotiations will receive Mewbourne's plans, that's when I started digging in a little bit deeper into the records that we received from Chisholm.

And the case number was written on the operating agreement for the expansion in North Wilson Deep Unit, which then $I$ did some research and to our internal records received from Chisholm, and then the OCD case files, which brought to light that Chisholm, a predecessor, expressed their thoughts to exclude the east half of section 18 , and wanted to remain operator of that.

Q I'm going to show you what's been admitted as Earthstone's Exhibit A2, which shows the tracks for first the wells proposed as outland Exhibit -- or excuse me -- outland 18-7 State Com 114H and outland 18-7 State Com 214H.

And it shows that it's proposed on the east half, east half of section 18 and the east half, east half of section 7. Is that right?

A Correct.
Q Did you prepare what's been admitted as Exhibit A2?

A Yes, I did.
Q And it lists the working interest owners on tract 1 , tract 2 , and tract 3, and then the working interest pool and the overriding royalty interest -or excuse me -- overriding royalty parties to pool. How did you come up with the parties listed on Exhibit A2?

A A combination of things. I had a broker that went out and updated the title out in the courthouses, and also look into the state land office records. Once he fully prepared all those run sheets, I forward that onto our title attorney.

Our title attorney examined all those materials and prepared a DOTO for the subject spacing units. And that is where $I$ direct to those interest figures for each tract, the spacing unit, et cetera, on my ownership exhibits.

Q All right. We heard during Mewbourne's testimony earlier today about the state land office and its communications about the -- before the division in these matters. I understand that you had an email exchange with the state land office. Is that
accurate?
A Yes, that is true.
Q I'll show you what I showed Ms. Salgado earlier, and that's what was marked as Exhibit 1 to Earthstone's response to Mewbourne's motion to dismiss these applications. Is that a copy of an email that you sent to Scott Dawson at the state land office?

A Yes.
Q What prompted you to send that exhibit?
A I had received a bunch of phone calls from Scott Dawson. And when I talked to him prior to sending that email, he had let me know Mewbourne had contacted him, and he wanted to give the courtesy to let me know that he was not going to allow us to drill into the unit, et cetera, et cetera.

During those conversations, it came to light that the SLO and Scott Dawson was not aware of our competing applications, that Mewbourne did not notify them that they would actually be drilling from section 18 into the unit.

And so long story short, he was not fully apprised of the situation and the matters at hand. So I went ahead and I included all parties, so there was complete, full transparency between Earthstone, the state land office, and Mewbourne, and Mewbourne's
counsel.
The matters at hand, you know, respectfully requesting the state land office to reserve judgment on awarding operatorship and/or denying any potential APD permits until the OCD has had the opportunity to listen and hear both of our cases.

Q Now you saw earlier what was marked Exhibit 3 in Mewbourne's application the email from Mr. Dawson to Ms. Salgado?

A Yes.
Q Did you have any knowledge about Mewbourne's communication with the state land office at that time?

A Mewbourne asserted that they had conversations, but would not give me any of those details or forward me any of that information. It wasn't till Scott Dawson himself forward me a little bit of those communications when he was trying to contact me prior to sending that email to all parties.

Q And then when you talked with Scott Dawson, and as reflected in Exhibit 1 to the response, the state land office was under the impression that Earthstone was not a party to the North Wilson Deep Unit agreement; right?

A Correct. And I -- I had to let Mr. Dawson know that we succeeded in Chisholm's interest and it
just doesn't appear to be reflected in the state land office records that Earthstone is now the successor in interest to Chisholm.

Q And the state land office also didn't know that Mewbourne intended to drill from section 18 into section 7; right?

A Correct.
Q And has the state land office ever told you or anyone at Mewbourne that it will not consider or even approve an application if you're granted these compulsory pooling orders?

A No.
THE HEARING EXAMINER: Mr. Beck, is this a good opportunity for me to ask you where is Exhibit 1 that you showed your witness a little while ago?

MR. BECK: That's Exhibit 1 attached to the Earthstone's response to Mewbourne's motion to dismiss. It was filed by the division on April 28, 2023, at 4:02 p.m. It's page 18 of 20 of that pleading in the case file.

THE HEARING EXAMINER: So just to be clear, are you asking for it to be admitted into evidence in this case or are you just referring to it?

MR. BECK: You know, I hadn't really
thought about it. I think the testimony is clear. But since you're prompting me, I guess I'd move at this time to include it in the exhibits that the division will look at as it takes these under advisement.

THE HEARING EXAMINER: Mr. Bruce?
MR. BRUCE: I would object.
THE HEARING EXAMINER: Can you give me a basis for the objection?

MR. BRUCE: Well, they knew they had it, and they haven't submitted it in their exhibit packages.

THE HEARING EXAMINER: So the objection is --

MR. BRUCE: Lack of timely -- yeah.
THE HEARING EXAMINER: Okay. Mr. Beck?
MR. BECK: The reason that I -- the reason that Earthstone didn't submit any is it's -- my understanding is it's part of the record in this matter, and that's why I said I haven't thought of admitting it as an exhibit.

I think that in the corollary to whatever is taking judicial notice is the files in the record, I think, that the division can.

But as I said, $I$ think it makes since,
since we've been discussing it, just to include it as an additional exhibit for the hearing.

THE HEARING EXAMINER: And the purpose of it coming into evidence is what?

MR. BECK: That we discussed it, that it's relevant to, I think, the argument that Mewbourne has made, although not come out and said it, that the state land office somehow has put its finger on the scales in this. And it's -- as I said, it's obvious that it -- that is has.

And I think it also goes to probably the credibility of the witnesses in the good faith negotiation, which obviously is a consideration for the division here.

And the fact that you've got an exhibit from Mewbourne in Exhibit 3 of their exhibits, that that does not include the original email sent to the state land office that prompted the reply Ms. Salgado said she received.

Whereas on the other hand, you've got an email from Ms. Redfearn and Earthstone that was sent to the state land office in which Mewbourne was copied.

THE HEARING EXAMINER: Mr. Bruce, do you want to voir dire the witness on that exhibit?

MR. BRUCE: No, Mr. Examiner. I mean, it exists. That email exists. I'll -- questions for her, but not really for voir dire. Okay?

THE HEARING EXAMINER: Okay. All
right. So I do find that the credibility of a witness is crucial at any point in a proceeding, such as this, where we're trying to get at the truth.

So I am going to admit that as an exhibit, but I'm going to ask Mr. Beck to mark it appropriately and submit it, so that it's part of your exhibit list here.

What do you propose marking it?
MR. BECK: I'll do that as soon as we finish here. And I propose that it be admitted as Exhibit E.

THE HEARING EXAMINER: I'm sorry.
What? E as in echo?
MR. BECK: E as in echo. Yes.
THE HEARING EXAMINER: E as in echo.
Okay.
Exhibit E -- Earthstone's Exhibit E is admitted into evidence for the purpose of the credibility of the former witness. And that's why it's being admitted. It's not being admitted for any other purpose. So we're letting it in for that one
purpose. And I'm taking notes.
Okay. And we'll expect you to mark it as Exhibit E and submit it through the portal, Mr. Beck.
(Earthstone's Exhibit E was marked for identification.)
(Earthstone's Exhibit E was received into evidence.)

MR. BRUCE: Yes, Mr. --
THE HEARING EXAMINER: Okay. So please continue with this witness. BY MR. BECK:

Q Ms. Redfearn, have you had the opportunity to examine Mewbourne's Exhibit 2, which is the verified statement of Adriana Salgado for this --

A Yeah. I have.
Q Brought that up in front of you. And in terms of Exhibit 2-2, the section plat for 8 H -- for the North Wilson Deep Unit 8 H where it says, "Tract 3," that Mewbourne Oil Company's minimal interest owners, is that accurate as far as your records reflect?

A No. That is inaccurate. And in fact, Mewbourne has admitted that they do not have any interest in the east half of section 18 , specifically
that lease referenced there in Exhibit 2-2.
Q And then I'm going to take you to revised Exhibit 2-2, which reflects the leasehold interest for the well 8 H and the proposed well 9 H . Are those interests reflected there -- do you agree based on the records you reviewed those are accurate or do you think those are inaccurate?

A Those are inaccurate for more than one reason. One main reason being Timothy MacDonald and Maverick are not credited and listed there yet. Their exhibit still totals to 100 percent.

Secondly, as I mentioned before, in my ownership that Earthstone pooled together, we got a full-blown DOTO done on it. And I believe Mewbourne was saying they just had a leasehold takeoff. So with that said, this is firstly inaccurate.

Although, this revised exhibit is a little bit closer to the numbers then that they had originally stated in their original exhibits. But it's just still not quite accurate.

Devon has a larger percent of interest in that, and I'm not quite sure of how their accounting or where they're putting Timothy MacDonald and Maverick's interest in here into play.

Q And this is -- again, this is probably
showing how ignorant $I$ am, but it'll probably help out me and some others listening in. What is a DOTO that you're referring to that was done?

A Sure. It's a division order title opinion.
Q And who does that for Earthstone and who -let me ask a better question. Who did that for Earthstone for these applications?

A Our title attorney that we used, KMD.
Q Want to talk to you about Exhibit A6 in Earthstone's prehearing exhibit packet. Are you familiar with this exhibit?

A Yes, I am.
Q What does this show?
A This here is showing the pad location that we got approved from the surface center that we staked on March $27 t h$.

And then the two additional pads over on the west half that we recently got pooling orders on that we would -- are hoping to codevelop together if we were able to be awarded operatorship here on this east half of 18 and 7.

Q You referenced the compulsory pooling order that you were just awarded in the well that will -this will out of that -- or is being developed out of that. What's the status off those wells?

A Those wells have already been permitted. We already have API numbers. And I have proposed them already to the parties that were under order.

Q How did the facilities for those wells play into the development plan here for the proposed outland 18-7 wells in these two cases?

A Well, due to the proximity, and the existing infrastructure, and everything else like that, it -it's just -- it's codeveloping the east jointly together. It's just more efficient. It's cost effective.

There's already existing roads and other infrastructure there that we would not have to traverse any other lands outside of the spacing units, much less traverse into the North Wilson Deep Unit.

Q Did you compare the surface impacts for Earthstone's applications in these cases with the surface impacts from Mewbourne's applications and the cases competing with it today?

A I did.
Q And what conclusions about the differing surface impacts did you reach in those comparisons?

A To me, in my opinion, it looks like there would be a lot more surface disturbance.

There would also be -- you know, it's hard
to tell exactly, but with those two batteries that they reference in the sections, they would have to, you know, traverse off these pad locations across state land trusts, and although right away is not required there, it -- it's also the physical disturbance crossing over those lands, in addition to flow line paths and not knowing that, you know, they -- they could have to potentially bury under Highway 176 to reach their existing facilities and batteries that they referenced.

> MR. BECK: May I have a minute,

Mr. Hearing Examiner?
BY MR. BECK:
Q Ms. Redfearn, I'm showing you what's been admitted as Mewbourne's Exhibit 4 for these cases. Do you see that in front of you?

A Yes, I do.
Q This is a letter of support dated July 18, 2023, from Devon Energy Production Company to Mewbourne Oil Company. Is that right?

A Yeah.
Q And is the support in this letter supporting the applications of Mewbourne different than what you've heard Mewbourne talk about as its development plan today at the hearing?

A Yes, in the sense that today is the first time I'm hearing, and then also with the addition of those -- believe it was Exhibit 12 where they were speaking upon targeting the first Bone Spring formation at a later date.

It kind of signals a little bit different to me in the sense that Devon's letter of support here is supporting these specific wells and these specific applications, and supporting a two-well development in the Bone Spring only. And --

Q And that's what --
A I'm sorry. Go --
Q -- the case number 23365 seeks authorization to drill and complete a producing total of one Bone Spring well in a proposed spacing unit, and then same thing in the next sentence for case number 23366 , they produced a total of one Bone Spring well; right?

A Correct.
Q And then as far as your reading of this letter, nowhere does it say Devon would support the drilling of additional Bone Spring wells on these units; right?

A No. If you could please scroll down to the second page, $I$ think it expressly states in there "Devon urges -- the commission approved Mewbourne's
request for authorization to drill and complete a producing total of two Bone Spring wells within the east half of section 7 and east half of 18."

So only a total of two does that letter
support. And it doesn't support any additional
targets in the Bone Spring that has now come to light that Mewbourne is interested in targeting at a future date.

Q Did Earthstone ever talk with Devon about the application for -- two applications with a total of four wells versus only drilling two wells into the spacing unit?

A Yes.
Q What were those discussions?
A The discussions they had is that they were more in favor of a two-well development versus the four-well development. But there was also some other business reasons, and -- as to why they were looking to support that.

MR. BECK: That's all that I have for the direct of Ms. Redfearn.

THE HEARING EXAMINER: Okay. Before I turn this over to Mr. Bruce, I do want to remind you, Mr. Beck, that Exhibits B and B1 through 5 are admitted, and I don't think this witness is dealing
with B. But 6 through 10 are objected to.
MR. BECK: B6 through 10.
THE HEARING EXAMINER: Yes. Exactly. MR. BECK: Yeah. Thank you. Yeah.

She's not testifying about the exhibits marked B. I appreciate that.

THE HEARING EXAMINER: I understand.
Just wanted to make that very clear to all the parties.

MR. BECK: Thank you.
THE HEARING EXAMINER: Okay.
Mr. Bruce, cross-examination, please.
MR. BRUCE: Thank you, Mr. Examiner. CROSS-EXAMINATION

BY MR. BRUCE:
Q Well, let's start with the last thing you said that you've spoken -- or you looked at the letter of support from Devon to Mewbourne. Mewbourne at this time is only proposing two wells; correct?

A Correct. Yes.
Q And so that letter supporting two wells is perfectly accurate; correct?

A Yes. In the sense that it's -- it's supporting a two-well development only in the Bone Spring. I -- latter -- latter paragraph of that
letter.
Q And under a pooling order, Mewbourne gets a pooling under. Under the order, under the OCD's statewide rules, additional wells can be proposed to the working interest owners who are being pooled. Is that correct?

A That is correct.
Q Okay. And you cannot predict what Devon may do in that case.

A I -- I cannot. I cannot speak for Devon.
Q Okay. And now in your affidavit you state in your -- a couple of places, but in paragraph 8, Chisholm -- toward the bottom you talked about Chisholm didn't want to have some of its lands in the state unit, you know, impede development plans of the acreage for those who choose to commit to the expansion.

Now both Chisholm and Earthstone could've developed this acreage, their section 18 acreage, with section 19 to the south. Couldn't they? Prior to that.

A Yes, sir. They could've. But to my understanding, those wells were drilled shortly after Mewbourne got their order to expand their unit. And there's -- those conversations that were held between
the operator down to the south in section 19 in Chisholm I'm not privy to.

They could've had those conversations and try to develop, but $I$ do know that Chisholm, our -our predecessor, and now Earthstone does not have any interest in section 19. So it just wouldn't make sense for us to try to develop that when we have no ownership in section 19 down to the south.

Q Well, isn't that the purpose of pooling? I mean, after all, you obviously don't want to drill 1 -mile laterals in section 18. Is that correct?

A That is correct. It's more economical to --
Q Okay. So impeding development -- by Mewbourne proposing 2 -mile wells, they're not impeding development. They're doing exactly what you want to do.

A Yes. But -- I'm sorry. Go ahead.
Q No. Go ahead.
A No. As you pointed out in my paragraph 8 of where it's been made a matter of record, but, you know, it was grave concerns that Mewbourne would use its designation as a unit operator to the state unit to challenge and impede the development plans of other working interest owners.

And to me, exactly what Mewbourne is doing
here is challenging, impeding our ability and our development plans for our leasehold acreage in section east half of 18 that we have a working interest in that Mewbourne does not.

Earthstone also has a working interest in the east half of 7. So we have interest in both proposed spacing units in these cases.

Q And section 7 is in the unit area operated by Mewbourne; correct?

A That is correct.
Q And so what you're seeking to do is impair their development of the unit by not allowing them to operate.

A No. I think what we're seeking here is just a fair and equal opportunity to have our cases heard of who has the superior development plan to develop the acreage prudently.

Q And Mewbourne could've simply proposed 2-mile wells to the north starting in section 7 heading to the north. And where would Earthstone be at this point?

A I don't think they could've, because of the -- there's current wells already located to the north of 7 .

And then also I'm very familiar with the
surface use agreement and the location that it -the -- you have to have permission from the surface owner 14 days in advance to even enter the property, and then you need to advise them of all your locations and plans. And they have to agree upon that.

And I know speaking with the surface owner of 7, it's just not feasible for that kind of developed -- for that. And then also to the sure fact that there's already development north of 7 that would make it almost impossible for development to occur there.

Q Well, let me ask you. I think if you look at the exhibits, yeah. In one part of section 6 there is an existing well, but $I$ don't know if Earthstone has done it.

But you obviously -- pay attention to the OCD's docket, and there are many units being drilled where there are existing wells where you just apply for approval of overlapping well units. Isn't that correct?

A That is correct, but we just didn't feel the need that --

Q So what I'm getting at, you answered, is that Mewbourne is not impaired from drilling from section 7 into section 6. They can go ahead and
propose that, and drill unit acreage, and what would be the recourse of Earthstone if they decided -- if they had decided some months ago to do that?

A Well, if they were staying wholly in unit -MR. BECK: I'm going to object to that as compound. I think there was three questions in there, and I don't know Ms. Redfearn knows which one she's being asked to answer --

THE HEARING EXAMINER: Mr. Bruce, could you reformulate the question?

MR. BRUCE: Yeah. And I can't even remember if $I$ remember it, but --

THE HEARING EXAMINER: Well, we have a court reporter, Mr. Bruce. We have a court reporter who could read it back to us -- and you could split it up if you like.

MR. BRUCE: I think I can remember -BY MR. BRUCE:

Q First of all, you admitted you have well units with overlapping well units. Secondly, Mewbourne could drill 2-mile laterals to the north from section 7 into section 6 . Is that correct?

A If Mewbourne wished to do that, yes. It seems like that could be a potential that they could work out.

Q And if Mewbourne had decided to do that -this case was originally scheduled to be heard in February. I can't remember when I filed the application. Would Earthstone be better or worse off only having section 18 to develop?

A You -- I -- I don't -- not sure how to answer that one, as far as being better off. I think in that case they would be wholly within unit and within their bounds.

And I think, you know, our position here is that the east half of 18 was meant to be excluded from the unit, being Mewbourne is an operator to it. And therefore --

Q Can you point to me any -- okay. Can you point to any explicit written agreement between Chisholm and Mewbourne or Mewbourne and Earthstone that says that Mewbourne cannot propose a well unit, including east half section 18 acreage?

A I do not see an agreement for that, but I think that is implied in part of this -- all of the case proceedings in the expansion of the unit, and why that was specifically excluded is because Chisholm, our predecessor and other operators wanted to have the ability to operate their leasehold.

Q Okay. Well, you know, there's no guarantees
that an operator or that a company will get to operate a well.

A I understand that. And that's why we're here today, Mr. Bruce.

Q And let me move onto a couple of other things. Okay. The land exhibits. Mewbourne filed an additional -- a revised Exhibit 2-2, which you looked at. First off, you'll admit that Mr. MacDonald and Maverick own quite small interests. Do you not?

A They do. Working interests, nonetheless.
Q Oh, sure. But if you look at Mewbourne's exhibits and who has -- who is the parties who are not being pooled -- in other words, they signed JOAs and then the letter of support for Devon -- you still get up to about 72 percent approval from working interest owners in the proposed well units who approved of Mewbourne's plans. Is that correct?

A Yes, sir. It seems to be that way. But again, like $I$ said, these interest figures are not accurate, so $I$-- $I$ can't say for certain that you guys are representing the most accurate interest to being pooled.

And although there is a letter of support, 7 has not signed a JOA, so I'm not sure if you could really count that as being committed at this time,
'cause there's still -- it's evident that you guys are still seeking to compulsory pool them the same way Earthstone is --

Q Well, and you heard Ms. Salgado say that's because Devon in these situations has not been signing a JOA. They elect under the pooling order, and they've elected to join in all of Mewbourne's wells.

A Correct. And I -- you know, I will point out in my exhibit, you know, we do have a letter agreement from Conoco and COG. But I didn't go ahead and count them as being committed there either.

A lot of these parties wanted to wait until -- to see how this hearing played out and who is awarded operatorship.

And that's why it's in my statement that, you know, if we were referring to an awarded operatorship, that if we were to come to voluntary agreement with other parties, we would sign a JOA with them and not take everyone under pooling.

Q So what you're saying is no other working interest owner has committed its interest to Earthstone's wells.

A Well, if you want to -- I guess you could say yes, by virtue of a letter agreement. Also if you wanted to count Timothy MacDonald, who has already
elected to participate in these proposed wells, as you guys have noticed.

And I've also noticed the guy didn't list any overriding royalty interest owners on your Exhibit 2-2. So again, I'm -- I'm just -- it just kind of makes me extremely doubt the interest figures that are being purported here on this exhibit.

Q Well, the main purpose of pooling is to get working interest owners committed to share the well cost. Would that be an appropriate statement?

A Yes. All -- all working interest owners, but two of which were missed on -- on your exhibits and proper notice.

Q Was about a 0.03 percent --
A Small interest or not -- yes. In small interest or not, they're still a working interest owner that was entitled and due notification and their opportunity to elect or eject.

And as I mentioned, we properly noticed Maverick and MacDonald, and Maverick has already elected to participate in all four of our wells.

Q And absent a JOA or a pooling order, those election notices carry no legal weight. Do they?

A No. But we're currently working with Maverick to get a JOA signed. As I mentioned before,
our co-development to the orders that we got on the west half, working through -- we just got those proposals out and working through getting JOAs and everything signed.

And we're hoping to codevelop these together. And when that occurs, we will get those parties under JOA based upon the -- the negotiations that I've had with all of the parties.

Q And let's assume -- I don't know. The bigger the fight, the longer it takes to get a pooling order out. Are these proposed wells on Earthstone's drilling schedule?

A Yes, they are.
Q For when?
A The dovetail wells are scheduled for early 2024, and depending on how the -- this hearing shakes out today, they would be codeveloped there and codesigned together.

Q Will Earthstone be the operator of those wells or will another company be?

A Earthstone will be the operator.
Q Earthstone will still be an independent company in early 2024?

A To my understanding, yes, sir.
Q Finally, let's go back to the state land
office approval, the email you wrote to Scott Dawson last spring, I think. Did he ever give an explicit response stating that they would hold their approval in advance pending the outcome of this hearing?

A Not in a written statement or written reply. We spoke over the phone.

Q Do you know of any email or anything revoking Mewbourne's state land office approval?

A I am not aware. In that conversation that I had with Scott, he said that he respected my email and he's going to reserve and withhold judgment until these cases have been heard and the OCD has made their decision.

MR. BRUCE: That's all $I$ have at this time, Mr. Examiner.

THE HEARING EXAMINER: Thank you.
Mr. Lowe?
MR. LOWE: Good afternoon.
THE WITNESS: Hello.
MR. LOWE: I've just got just a quick question. In all your exhibits that have been presented here, is there any one of the exhibits that has the unit map for the unit in question?

THE WITNESS: The spacing unit?
MR. LOWE: Entire referenced unit that
you guys are referring to for Scott Dawson.
THE WITNESS: The North Wilson Deep Unit?

MR. LOWE: Yes.
THE WITNESS: No. That's a 12,000 some odd acre unit, so it's quite large and didn't fully pertain to these cases. Only the east half of section 7 is encompassed in that North Wilson Deep Unit.

MR. LOWE: Okay. And that's kind of --
I was trying to focus in on in reference to that Scott Dawson subject, and units, and then what we're looking at here. But yeah. I can understand it being quite large.

The other question too -- in the beginning of your presentation, I thought I heard you talking about when Earthstone took over this location from the other company -- what was the other company? THE WITNESS: Chisholm?

MR. LOWE: Chisholm, yes. At that time, did I understand -- did I hear correctly that that's when you all found out that this location was under -- had a case number at the time? Is that what I understood and what I heard?

THE WITNESS: Yes. When I took over this area and started working it, and working with

Adriana and the negotiations, that's when I discovered the -- the case at hand that led to a lot of this evidence and history.

MR. LOWE: Okay. And from when you found that out at that moment was there any changes to the case when you all took it there afterwards or did it pretty much stay the same as how the case was being -- how the case was, I guess, noted at that time?

THE WITNESS: Which case are you referring to?

MR. LOWE: I guess the case in -pending at the time when you took over the other company. Was there a list -- I'm assuming all of them. Is that what -- they were all under that scenario?

THE WITNESS: I'm not quite understanding. I think -- are you talking about the case that expanded the North Wilson Deep Unit or are you talking about these specific cases that we're speaking about today?

MR. LOWE: The one that we're speaking about today.

THE WITNESS: Did anything change to
that?

MR. LOWE: Yeah. 'Cause that's -- I guess that's what I'm trying to understand. From what I heard is when you all -- when Chisholm took over the other company -- not Chisholm -- Earthstone took over Chisholm, at that time you found that these -- this scenario, this location was under these cases.

Is that what $I$-- I guess that's what I need to clarify on my side. Was that the scenario at the time?

THE WITNESS: It wasn't at the immediate time that we took over Chisholm, but it was sometime between then and the time that we received Mewbourne's proposals.

MR. LOWE: Okay. And that's all I wanted to find out for sure. Okay. Well, thank you for clarifying that for me.

Those are the only questions I got. Any other questions I have are going to be from the exhibits that I'm still going through on my side. But thank you much for your presentation, and I appreciate it. And that's all I have.

THE WITNESS: All right. Thank you.
THE HEARING EXAMINER: Thank you,
Mr. Lowe.
Any redirect?

MR. BECK: Ms. Redfearn, I think it's short.

## REDIRECT EXAMINATION

BY MR. BECK:
Q The conversation you had with the state land office over the phone, the state land office confirmed that it would reserve and withhold judgment on approval of either Earthstone or Mewbourne until this division made its decision in these competing applications. Is that right?

A Correct.
MR. BECK: That's all I had. Thank you.

THE HEARING EXAMINER: Okay. Your next witness, sir?

MR. BECK: The next witness is geologist Jason Asmus.

THE HEARING EXAMINER: Would you state and spell your name, please?

THE WITNESS: Yes, sir. First name is Jason, J-A-S-O-N. Last name Asmus, A-S-M as in Michael, U-S.

THE HEARING EXAMINER: Okay. And your voice is coming through broken up, and I don't know if the court reporter can hear you clearly. Let's see
what happened -- we may need to switch to a -- now I'm hearing an echo, so.

THE WITNESS: All right. Let me try
this now. Can you hear me?
THE HEARING EXAMINER: Yes.
MR. BECK: Yeah. I can hear you a lot
better.
THE WITNESS: My name is Jason,
$J-A-S-O-N$. Last name Asmus, A-S-M-U-S.
DIRECT EXAMINATION
BY MR. BECK:
Q Mr. Asmus, I'm looking at your direct testimony, and sort of your background is provided in paragraph 3. And your credentials of petroleum geologist have been accepted by the division before. Is that right?

A That is correct.
Q Attached to your direct testimony there are a number of exhibits, Exhibit B1 through Exhibit B10. Is that right?

A That is correct.
Q And did you prepare and participate in the preparation of all of the Exhibits B1 through B10?

A Yes, sir.
Q Who else besides yourself at Earthstone
helped in the preparation of B1 through B10?
A That'll be our reservoir engineer, Juan Mata.

Q Did you discuss all the contents of your direct testimony, statement, and Exhibits B1 through B10 with Juan -- what was his last name? I'm sorry.

A Mata, M-A-T-A.
Q M-A-T-A. Did you discuss all your direct testimony and the exhibits with Mr. Mata?

A Yes, sir.
Q All right. And did you understand and feel comfortable with everything that is written in Exhibits B1 through B10 in your testimony and your direct statement?

A Yes, sir.
Q You have -- how long have you been working in the oil and gas industry in the Delaware Basin specifically?

A Twelve years of my career, and I would say about 11 of those in primarily the Delaware Basin. Going on 12 years.

Q And in those 12 years, have you had the opportunity to analyze and compare proppant intensity of wells and the effect on production?

A Yes, sir.

Q Have you had the opportunity to compare the distance between adult and children wells, and how that may affect production from those child and adult wells?

A Yes, sir.
Q What is a child versus an adult well?
A Typically how we define it -- and I'm sure you can come across many variations of definition of parent versus child.

But we typically look at a child well as one that comes in within a similar formation target bench, typically with production being six to nine months after the initial production of the original parent well.

Q And is that he definition that you use in Exhibits B9 and B10 when you talk about child versus parent wells?

A Yes, sir.
MR. BECK: At this time, Mr. Hearing Officer, Earthstone tenders Mr. Asmus as an expert petroleum geologist, and moves into evidence B6 through B10. I think those are the exhibits that have not yet been admitted.

THE HEARING EXAMINER: That's correct.
Mr. Bruce?

MR. BRUCE: Mr. Examiner, I -- no development -- no problem with Mr. Asmus testifying as a petroleum geologist. But he is not a reservoir engineer. And Exhibits B6 through B10 are clearly marked "Reservoir Engineer."

And primary data -- Earthstone's reservoir engineer, who $I$ will not have any chance to cross-examine.

So I don't think there's a -- virtual connectivity interruption -- and I do not -- I will not have the right to cross-examine the person who really formed these exhibits and therefore I object to them being admitted into the record.

THE HEARING EXAMINER: Mr. Beck?
MR. BECK: Sure. Mr. Hearing Examiner, as Mr. Asmus testified, he's the one who developed these exhibits. He's the one who wrote the information in these exhibits. He feels confident to testify to the information in these exhibits.

He has made these comparisons for ten years in the Delaware Basin specifically, so he's competent to testify about all these exhibits. He's laid the foundation to how they come about. They're admissible. They're set forth.

Frankly, you know -- and I don't have
the experience that others do, but what I've seen in these contested hearings is that rather than being here for days and days on end and having multiple witnesses come in and out, the witness testimony is developed from those who have both education and experience in the field in which they're testifying about are confident to testify.

And that's the reason that the rules for the division allow for, as you pointed out earlier as we kicked off today, a more lenient standard for the rules of evidence.

And so hearsay can come in. And so to the extent that Mr. Bruce believes that there's evidence he won't be able to explore, I guess he can try to develop that now and voir dire Mr. Asmus, but otherwise they're admissible and they should be admitted.

THE HEARING EXAMINER: Mr. Beck, what page number does B6 begin?

MR. BECK: If you're talking about the PDF, the 150, I think it's page -- let me find the right -- sorry. I've got a new edition of Adobe that's not helpful, and looking at the web pages wrong here. So let me see if I can find it. Page 78.

THE HEARING EXAMINER: Okay. Give me a
minute to look at these.
Mr. Bruce, while I'm looking at these exhibits, do you want to voir dire this witness as to your concern?

## EXAMINATION

BY MR. BRUCE:
Q Well, Mr. Asmus, do you have any degrees in engineering -- petroleum engineering?

A No, sir.
Q Have you ever taken a reservoir engineering class?

A Not particularly named "Reservoir Engineering," but related through my masters work.

Q Have you ever testified as a reservoir engineer before?

A No, sir, I have not.
MR. BRUCE: Well, again, Mr. Examiner, I'd object to his testimony. And his testimony in paragraphs 10 to 13, as well as Exhibit -- B10.

THE HEARING EXAMINER: It's hard to hear you, Mr. Bruce, but I'm still looking at these exhibits, so --

MR. BRUCE: I'm sorry. I'll wait until you're done.

> THE HEARING EXAMINER: Thank you.

So, Mr. Beck, now it's my
understanding -- let me ask the witness a few questions if $I$ may.

The objection is to B6 through B10.
And I'm not sure I understand, how were these exhibits created by you?

THE WITNESS: Well, they were prepared in tandem with myself and our reservoir engineer using multiple softwares, Microsoft Kingdom, which is a geologic mapping software, and Spotfire, which is more of a data analytics software. A lot of reservoir engineers use this.

THE HEARING EXAMINER: So what was your role and what was your reservoir engineer's role in -for example, let's be specific --

THE WITNESS: Yes, sir. So my role in vetting these exhibits was identifying the correct well data that were brought in to the analysis overall. So the gun barrel plot or the wine rack in B6, B7, using those exact carryovers from the Exhibit B5, which was geologic testimony.

And then the additional vetting of data that were used in the evaluation of Exhibit B8, B9, and B10. So the actual wells themselves that were brought in to the evaluation of prop and size
production, dates of production, dates of completion, and well spacing.

THE HEARING EXAMINER: What was the reservoir engineer's involvement in these five exhibits?

THE WITNESS: Actually putting together the physical exhibits themselves in slides B8, B9, B10, and adding commentary to Exhibits B6 and B7.

THE HEARING EXAMINER: Commentary in the box?

THE WITNESS: Yes, sir. In the text boxes that are in addition white with black text. So a lot of the work that has been done has been done in tandem.

Their primary role was really involved in looking at production analysis and whether there was degradation from parent to child from the production differences, as well as looking at the proppant -- the completion design, the proppant intensity from parent and child wells.

THE HEARING EXAMINER: So really I think what we have here is whether this testimony, evidence is within the scope of this expert's opinion. I think that's really where we are here.

I don't know that it has anything to do
with hearsay, because, of course, the rules of evidence don't strictly apply in these hearings. I can use them for guidance if I want to.

But I think ultimately what this comes down to is if this witness is going to give his expert opinion about something that is outside of his field of expertise, then $I$ think that's improper.

If it's within, then I think it's
proper. That's the issue I'm having right now, Mr. Beck.

So with that said, what is your argument that this data in these exhibits, B6 through B10, is within this expert's scope and field of knowledge?

MR. BECK: Mr. Hearing Examiner, this is -- I mean, as the witness just explained, this is stuff that he does in his role as a geologist for Earthstone and the other oil and gas companies that he's worked for.

And so for the last ten years on a day-to-day basis he has looked at production of wells, production of anticipated wells, production of adjacent wells, and how the development of child wells off of those adult wells and the spacing, the proximity, and the proppant produced in those wells
affects the production of those wells.
Compared those to decide, in his role as a geologist in the companies he's worked for, how to space the wells and what wells would be drilled and produced going forward.

And so that's exactly what the information -- and he may think differently than me, and I'll ask him to speak up, but that's exactly what information he has contained here in Exhibit B6 through B10, and whatever paragraphs refer those, 10 through 13.

THE HEARING EXAMINER: So, Mr. Beck, what you're saying is this is within the scope of this witness' expertise, because it's regarding production data.

MR. BECK: Exactly. And comparing the production data from existing wells to anticipate -comparing that with the geology, the known geology of the gun barrel and the cross section to be done anticipate what the production will be, based on the development spacing of the wells at issue in this case.

> THE HEARING EXAMINER: Okay. I can understand that. Why did he not create these exhibits himself? Why did someone else work in tandem with him
to create these exhibits?
MR. BECK: Because that's -- my
understanding -- and he can correct me if I'm wrong.
My understanding is that's the way that
this is done in the field, that when you're looking at developing -- you're putting together a development plan, like Earthstone did here, you would compare do you want to do side-by-side wells adjacent on the same -- you know, at the same -- I was thinking altitude -- depth -- at the same depth through other when it's offset in a wine rack.

And so just like you would do in a business where the geologist, and reservoir engineers, and petroleum engineers work together in a room to create these development plans, that's how they came up to here.

And also on a realistic level, I thought it would be -- I didn't think we would waste our time on this. My understanding is that's how this is done.

And so at a baseline, $I$ tried to streamline and Earthstone has tried to streamline the testimony, so we wouldn't have to call in five or six witnesses to testify.

And again, $I$ think -- the answer is, is
that if there's something outside of his expertise that he's going to testify to, that should be brought out on cross-examination, on voir dire. I mean, that's the whole purpose of it.

I haven't heard anything about any area he's not competent to testify to he plans on testifying to today. I'm sure -- well, I'm not sure, because Jason is a particularly smart guy in my experience.

But I would expect that there are areas of reservoir engineering that he is not competent to testify to. He is not testifying to anything in that area today.

Everything in his statement, as he just told the division under oath -- everything in his statement is an area that he has explored before, he has done before in his work, and he is competent to testify to today.

THE HEARING EXAMINER: Mr. Bruce?
MR. BRUCE: Well, a couple of things that he's going to testify about is estimate ultimate recovery of wells. He's going to testify about the drainage area. And if you look at Exhibit $B 6$ and B7, and other matters like that -- virtual connectivity interruption -- reservoir engineering.

And again, $I$ cannot engineer -- virtual connectivity interruption --

THE HEARING EXAMINER: It's very difficult to hear you, Mr. Bruce. But I understand that you're maintaining your objection, because you feel like this witness is outside the scope of his expertise.

What I'll do is this in this -- for these exhibits. I'm going to wait until after the testimony is over to decide whether to admit them into evidence or not.

I will give you a lot of latitude to cross-examine this witness to show me that this data is not reliable for some reason.

But if I feel like it is reliable, then I am going to admit it, because basically the rules of evidence are greatly relaxed in these administrative hearings. And $I$ understand that there's an overlap of this witness' scope of expertise in the creation of these exhibits.

I just don't know how much of an overlap there is, and $I$ don't know how reliable these exhibits are until you deal with cross-examination on them.

> So I'm going to reserve my judgment on
this, but please, Mr. Beck, why don't you continue. BY MR. BECK:

Q Mr. Asmus, I'm going to walk you through some of the -- I'm sorry. I hit the wrong button here. I'm going to walk you through some of the exhibits that you prepared in anticipation of today's hearing.

I'm showing you what's been admitted as Exhibit B1. Will you explain to us what's depicted in Exhibit B1?

A Yes. B1 is a location map of regional and local of where the proposed well locations are planned to -- to be drilled from south -- 18 into 7, as well as showing all the vertical, whether producing or not, well border control that we have in the area, as well as corresponding first and second Bone Spring sand horizontal wells that are pertinent to the proposed wells proposed by Earthstone Energy.

Q And the pertinent wells that are producing from the first and second, those are delineated by yellow -- blue respectively.

A That is correct.
Q Showing you what's admitted as Exhibit B2. What is this exhibit showing?

A B2 is showing the structure on top of the
first Bone Spring sandstone in contoured intervals of 25 feet, as well as a cross section in A to A prime that'll be shown in Exhibit B5 and the proposed generic kind of well location stakes as the dashed orange lines.

Q Were you involved in the application for any adjacent wells in front of the division for Earthstone?

A No, sir.
Q So were you not involved in the Earthstone wells for the west half of section 18?

A Oh, I'm sorry. Yes, sir.
Q So Earthstone previously applied to the division and was granted compulsory pooling orders for wells adjacent to these proposed wells. Is that right?

A Correct.
Q And where are those wells located, for example, if we're just looking at Exhibit B-2?

A The west half of the east half.
Q And so that would be the half that is directly adjacent to the left of this red rectangle. Is that right?

A Correct. Right.
Q And you were the geologist who provided
testimony to the division in support of those wells that were eventually granted compulsory pooling orders; right?

A Correct.
Q Now we're looking at Exhibit B-3. What are we seeing in Exhibit B-3?

A Essentially the exact same thing. Only
looking at the top of the second Bone Spring sand. So it's the same structure, just different formation, in 25 contour intervals.

Q Now I'm showing you what's been admitted as Exhibit B4. What is this exhibit?

A This is the cross section from A to A prime that was shown on both the structure maps, as we previously discussed, showing all three of the intended horizontal drilling targets.

We have first all the way at the top the first Bone Spring sandstone target with an average of about 75 -foot thickness from southwest to the east, which is the orientation of this cross section.

Going down further, you have the upper second Bone Spring sandstone target, which again on average, is roughly 60 feet.

And then below that and lastly, you have the lower second Bone Spring sandstone target, which
again, on average, how we pick it, is roughly 60 feet.
Q Showing you Exhibit B5. What is shown in Exhibit B5, Mr. Asmus?

A B5 is a gun barrel representation of how we -- or wine rack display has been previously used in this hearing -- of how we intend to develop and drill all four horizontal wells.

Again, starting at the top you have the 113, 114, 1,320-foot spacing in the first Bone Spring sand, 550 feet approximately. Below that you have the upper second Bone Spring sand horizontal proposed well, the 214 H.

And then below that, again, approximately 220 feet. You have the 223 H , which is the -- the lower second sand.

Again, in the -- in -- also what you see here are the North Wilson Deep Unit wells that are offset and located directly off to the east, the 3 H , and then the 4 H was in -- which is in the upper second and lower second targets respectively.

Q Okay. I'm showing you -- well, let me ask this question first.

A Yes, sir.
Q In preparing for the hearing today and preparing for your testimony today, did you have the
opportunity to consider the competing applications from Mewbourne?

A Yes, sir.
Q And in your consideration and comparison of Mewbourne's development plan did you create exhibits with Juan Mata at Earthstone that depict why Earthstone believes its development plan is superior to that of Mewbourne's?

A Yes, sir.
Q All right. I'm going to show you now what's been marked as Exhibit B6. What's depicted in this Exhibit B6?
(Exhibit $B 6$ was marked for
identification.)
A B6 is essentially a depiction of the overall production coming from the upper and lower set North Wilson Deep Unit wells. And an overall representation of what we -- Earthstone being "we" -- determine to be a drainage radius drawn around the North Wilson Deep Unit 3 H wellbore location.

Q I'm showing you Exhibit B7. What's depicted in Exhibit B7?
(Exhibit $B 7$ was marked for identification.)

A B7 is the proposed Mewbourne development
plan for the -- the 187 section wells and how they are getting within a consideration distance and increasing risk by keeping their 9 H well within close proximity to the offset inherent North Wilson Deep Unit $3 H$ horizontal second sand well.

Q You talked about risk. What's the risk that Earthstone believes its application avoids better than Mewbourne's application?

A Increase in that hypotenuse distance and direct offset horizontal distance from the existing inherent 3 H well by targeting the upper second sand.

Q And that's depicted here on $B 6$ where we see that there's 1,445 feet between the North Wilson Deep Unit $3 H$ and the proposed 214 H ; right?

A That is correct.
Q Compared with 940 feet between the proposed Northwest Deep Unit 9H and the existing 3H.

A That is -- correct -- correct.
Q And so basically what's depicted and explained here is that having those wells closer together on this -- at the same depth produces more of a risk that the production will be depleted. Is that accurate?

A That is accurate.
Q Okay. This also talks about proppant
intensity. What is that? Explain that to me.
A So proppant intensity is just the amount of overall sand and fluid per foot that is proposed in their completion design for the proposed wells.

And so just looking and comparing at, you know, our -- our development plans and revised to theirs, typically when you increase this proppant per foot, your enhanced ultimate oil recovery increases. So it's just a comparison of the two different completion designs.

Q All right. I'm showing you Exhibit B8, the offset second Bone Spring well performance. What's depicted in Exhibit B8?
(Exhibit B8 was marked for identification.)

A Eight is essentially showing the exact same thing, just by looking at a case study of -- of further outside of the scope of just the proposed Mewbourne wells, but looking up we look at a 5 mile proximity to the proposed 187 section development, showing essentially the same thing; right?

Over time, as you increase proppant intensity in a barrel per foot from a fluid standpoint, your EUR and oil UR increase exponentially.

Q So it's showing that as you have a higher proppant rate, all things sort of being equal here, you have a larger estimated ultimate recovery, or EUR. Is that right?

A That is correct. And also showing, you know, within that same scope, was it within a certain proximity from parent to child well standpoint? If you're too close, having that increased proppant intensity could become detrimental to both either the parent and/or child wells.

Q So in the 5-mile proximity that you looked at for these proposed outland 18-7 units, what you found was if children are located closer to the parents, it results in a lower production rate for the --

A There is a --
Q -- over time for those wells.
A Yes, sir. There seems to be a detrimental impact to an extent. Yes, sir.

Q And why did you choose a 5-mile proximity as opposed to statewide, or a larger radius, or a smaller radius?

A Yeah. You know, so really that depends on, you know, geologic scope; right? Where do you sit in terms of the basin and how these formations are being
deposited.
You know, as you step east, west, north, or south from any particular distance -- and again, this is going very area in the basin -- your geology and the geological parameters that need to be considered here greatly can vary; right?

So there's typically a safe distance, and that, again, can vary by company to company or department from department internal to a company about how far out you feel is safe to -- to pull analog data from as a direct comparison; right?

Q I'm showing you Exhibit B9, which is the basin well proposed example one. What's this showing? (Exhibit B9 was marked for identification.)

A Again, these are very similar cases to exactly what we've been discussing here in the past exhibits showing both how spacing can be detrimentally affected any wells drilled in the same bench within a certain spacing distance from parent to child wells.

Q And is that --
A -- study examples that are directly offset to the southwest of section 18 and 7 .

Q Okay. So these are directly southwest from the proposed spacing units in these applications. Is
that right?
A That is correct.
Q And is this showing that the Dolly Varden B2ED1H is what you've been referring to and what's referred to as an adult well?

A Correct.
Q And then the two offset on either side of that, the Dolly Varden B2SC1H and the N11H, those are the children wells. Is that right?

A That's correct. And so looking at this -offset spacing known as the Dolly Varden 1H, you can see that it has been impacted from an overall EUR barrel per foot standpoint.

You have the child or the parent initial well, which $I$ think most people understand is probably going to be ultimately your best well.

And as you step offset to that in either direction, east versus west, within a certain distance it's going to be detrimentally impacted, especially at the same vertical target bench. So second sand, all three wells in the same bench, for instance.

Q Now I'm showing you Exhibit B10, the spacing well performance Exhibit 2. What's this example showing?

A Again, showing the exact same thing, wells that are roughly 1,300 space really. Again, from the Lychee 1H to the Lychee 503 H you have roughly 300 foot to 250 foot vertical separation between the wells.

But it's again showing that detriment only from a horizontal spacing standpoint from a parent to a child well.

Q And is that how you reached your conclusion that the spacing for Earthstone's proposed wells on the east half, east half of section 18 would result in a better expected production than will Mewbourne's proposed well?

A We are at least decreasing the risk. Yes, sir.

Q Now you were on here when Mr. Carrell testified for Mewbourne; right?

A Yes, sir.
Q I want to talk with you a little bit about some of his testimony. He testified a lot about some problems he saw with Earthstone's plan to drill into the upper second Bone Spring. Do you remember that?

A I do. Yes, sir.
Q Now we've got in front of the division here
today -- although the cases are consolidated, we've got two different cases for Earthstone. Is that right?

A Yes, sir.
Q And that's case number 23475. That's the State Com 114 H and the State Com 214 H ; right?

A Yes, sir.
Q And then case 23477 we've got the outland 18
7 State Com 113H and 223H; right?
A That is correct.
Q All right. Now Mr. Carrell's testimony about the problem with targeting, in his opinion, the upper second Bone Spring, does that relate to both of those cases and both those applications or just one?

A Primarily the way that $I$ see it, just one. And that is the east half, east half.

Q And his testimony about comparing what he saw as reduced ability to produce hydrocarbons, that was in the east half, east half of section 18; right?

A That is correct.
Q When we're talking about that, is that the entire 2-mile lateral that he's criticizing or is it the portion of that 2 -mile lateral for just that one case?

A In my opinion, that's just for a portion of
that one case.
Q And so as far as you got from Mr. Carrell's testimony, he's not raising concerns about the west half, east half application of Earthstone; right?

A No, sir.
Q Okay. Now I want to talk with you about -let's see if I've got it here. Give me one second. I'm trying to find the email from Tuesday with the extra exhibits.

I'm showing you what $I$ think has been admitted as Exhibit 12 now. This is what we were discussing with Mr. Carrell, his depiction of, I guess, the cross section of the upper second Bone Spring. Is that right?

A Yes, sir. That is correct.
Q And it says in this middle textbook in the middle that it shows approximately 36 feet of sand in the upper second Bone Spring. See that?

A Based on how they interpret the top and base of that target, yes, sir. I see that.

Q And you say, "Based on how they interpret that." Do you disagree with what's depicted there in Exhibit 12?

A I do. Yes, sir.
Q Tell me about that.

A Yeah. So really, you know, I think this comes from the standpoint of geologic interpretation. And I doubt that Mr. Carrell would argue with me on this from the standpoint of you put five geologists in a room, ask them to interpret the same cross section, you'll get five different interpretations.

And really also it's how each company has determined their target bench, what criteria was used to pick the top and the base of that target bench.

Mewbourne may have a different set of criteria than Earthstone, and how they pick that top and base of good reservoir is going to vary.

So in his case and his argument that the east half, east half is -- for the upper second sand is exaggerated a little bit thin than how we compare it -- looked at that well, and it is 66 feet on how we determine the top and base of it.

So it averages right around that same 60 feet that you see in the Exhibit B4. That has been consistent.

Whether you're taking it from west to east across the section, as Mr. Carrell did for -- for their exhibits or you go from a south to north orientation in the area, it is consistently present and it is consistently present across the entire -- of
the proposed wellbore that we intend to target that bench for.

Q So I'm showing you Exhibit B4, which I think you just referred to.

A Yes, sir.
Q And I think what you were saying was that your determination for the entire second Bone Spring where Earthstone's drill is proposed averages 60 feet thick as opposed to his 36 feet representation; right?

A That's correct. And again, I also say, "Average." So do you have variation above and below that? Yes. But for the most part, 60 feet seems to be a fairly consistent number that we get to when looking at that upper second sand target.

Q And did you look at that --
A The Packer [ph] well?
Q The sand when -- yeah. Did you look at that when you were considering replacement of Earthstone's well in the upper second sand?

A Yes, sir. There have been quite a bit of -I mean, and calculations that go into determining where we exactly want to drill a horizontal target, because the amounts of millions of dollars that are, you know, having to put forth in drilling one of these wells is not something that we take lightly.

Page 232

So yes, we've looked at every well in the offset area.

Q When looking at drilling in the upper second Bone Spring, taking into consideration what Mr. Carrell says versus what you analyzed and the relatively close proximity of Mewbourne's proposed well at the same depth, which in your opinion has a better chance of producing more -- for lack of a better -- oil out of the ground?

A Really it's going to depend on offset spacing to a parent well. You know, we really like the lower second sand. It is thick -- just as thick. It is consistent. And that seems to be where a majority of the offset wells are located.

However, with the spacing considerations and the development plan that we would like to put forth, we feel like we would be coming too close to that initial parent well, that North Wilson Deep Unit, to feel as if we would get just as much, if not more production drilling in that lower second sand.

We feel that would be detrimental to the overall production of this unit and a waste from overall development standpoint. So we decided to bump it up to that upper target, which we feel is just as consistent and productive, and also maintain a
reduced risk from that offset parent well.
Q I think what $I$ got from you is that all things being equal, maybe you agree that the lower second is a better target, but when you balance that close proximity to the northwestern deep 3H with the offset proximity in the upper second, Earthstone feels like it's going to get a better return on its investment from the plan that it's proposing in its applications today. Is that right?

A Correct. But what $I$ can tell you about that upper sand target is that there are quite a few -there is only a couple wells immediately offset to this area that are in that upper target in comparison to the lower.

So to say one is exponentially better than the other, $I$ feel like would not be a fully valid comment.

Q In addition to targeting the lower Bone Spring formation -- or excuse me -- the second Bone Spring formation, Earthstone's development plan proposes two wells in the first Bone Spring sand formation; right?

A That is correct.
Q And those are proposed in these applications. If a compulsory pooling order is
granted, those wells will be drilled.
A Absolutely.
Q Compare that with Mewbourne, which in its applications before the division today proposes only one well in each application and only in the second Bone Spring formation. Is that right?

A That is what I've heard. Yes, sir.
MR. BECK: That's all $I$ have for this witness, right now, Mr. Hearing Officer. Thank you.

THE HEARING EXAMINER: Mr. Bruce, are you ready?

MR. BRUCE: Sure. Let me get my reading glasses out.

CROSS-EXAMINATION
BY MR. BRUCE:
Q Let's go to your Exhibits B6 and B7.
A Yes, sir.
Q You're talking about potential effects from the unit 3 H well.

A That is correct.
Q And your little area of drainage, the green area -- virtual connectivity interruption -- ultimate recovery?

A I'm sorry. You broke up a little bit there, Mr. Bruce. Can you repeat that question, please?

Q Can you hear me better now?
A Yes, I can.
Q Okay. Sorry about that.
A It's okay.
Q The green area of drainage, is that based on what has been produced -- virtual connectivity interruption -- ultimate recovery?

A So what that green area is representative of is based on parent and child effect analogs that we've looked at from offset area lows. All right.

So where we see that reduction in
ultimate -- in our oil UR per foot that we proposed in the other exhibits, we've kind of come to a conclusion that that is a representative raise based on the variation in offset spacing within the same zones.

So we've kind of looked at a smattering of development plans that have been developed and have production data, had representative parent and child wells, and kind of come to that conclusion that that is an overall -- kind of where your -- your drainage rate is and your impacts really start to appear from one parent well to another well in the same zone.

Q And you say, "We." Who are you talking about when you say, "We"?

A It would be a collaborative effort between
myself and the reservoir engineers, as, you know, I'm sure if you ask Mr. Carrell, we work tandemly day to day very closely when we come to evaluate different well offset production results and spacing, because it impacts both disciplines and how we want to develop a certain area.

Q And in fact if you're looking at with this depleted reservoir region, once again, is this today, or is it a year and a half, or two years, or five years down the road?

A Yes. So when we say, "Approximately 25 cume oil barrels per foot," that is accumulative production. So that is a to-date production number. And I believe that was last pulled on September 1st.

Q Well, I guess what I'm getting at -- well, let me ask a question. When you're looking at the depleted reservoir, what you call it, what factors are you --

A So there's a lot of factors that we have to take into account here. Really we have to look at vertical section, so the entire lateral portion of the wellbore that's been treated, their completion design overall within that treated lateral length, so how much proppant per foot, what sand type was used, what fluid was used, if we know how fast or how hard they
were pumping fluid into the reservoir first stage, oil stage lengths -- orientation if you have it.

I mean, and a lot of this is information you don't have for offset competitor data, unless it was a well you were able to participate in or trade for.

Q Well, do you have to use volumetrics, recovery factors, things like that?

A Yes, sir.
Q And do you have to set a drainage tape and height if you're going to get to this -- the egg -the green egg?

A You will get it based on what you know about horizontal and offset vertical and horizontal spacing, is based on where you interpret the wellbores to be located. I don't know -- answers your question or not.

Q It still looks like -- and looking at Exhibit B7 -- one I drew on, you're showing the entire east half of section 18 , that red outline is that correct?

A The red outline? Is that what you said?
Q Yes, sir.
A Yes, sir.
Q So there's no effect on the west half, east half --

A That seems to be the -- seems to be the east half, east half, which is right about where the 9 H is proposed.

Q Say that again.
A Well, $I$ was answering your question. You asked if there was no impact on the west half of the east half. Is that correct?

Q Yeah.
A That would be correct.
Q And you don't show east half of section 7, so obviously there's no effect there.

A This is a 2 D representation, so it says right above that red rectangle that you're looking at, outland 187 east half, this is looking at purely a cross sectional 2 D view. So this is interpreted to be representative all the way from 18 into 7 .

It looks to be exact same way the -- showed just in section 7 or versus just in section 18 , as the wellbores will cross both sections.

Q And let me see. And so what you're -- first of all, you're looking at wells that are 940 feet away, based on your map.

A Yes, sir.
Q And under division statewide rules, those wells could be placed 660 feet apart.

A Could be placed at any spacing the operator wants to drill them at. 660, yes.

Q And I'm just saying, the division's statewide rules allow these two wells or any of these wells out here to be 660 feet away from each other east to west.

A Okay. I'm waiting for your question. Sorry.

Q Well, isn't your problem more with division rules than with Mewbourne, who's proposing what they think is the best zone to produce out here?

A I don't have any problem with division rules. I can see that Mewbourne, if they wanted to prevent risk, could propose their wells in the upper second sand or space their child wells a little bit closer together to help mitigate that offset footage risk from the parent -- or from the parent well.

Q Well, if there's any potential for the pressure depletion or drainage, isn't the typical remedy to drill an offset well to prevent that drainage?

A Say that one more time. You did break up a little bit, but I'm not sure $I$ understand your question.

Q Well, I go up there and drill a well next to
you, and you're afraid that -- and it's a totally orthodox location. And you own the offset acreage, and you're afraid of my well draining in your acreage. Isn't the remedy for you to go -- drill a well to prevent drainage?

A Sir, I'm not sure I want to speak to hypotheticals here, because it could vary by any operator, so not sure if $I$ can answer that question to how you would prefer.

Q And both your second Bone Spring wells are proposed as upper Bone Spring wells.

A No, sir.
Q No?
A That is correct. If you were to look at Exhibit B5, which is the gun barrel development of proposal, you can see that we have the 223 H , which is a lower second sand, and 214 H , which is an upper second Bone Spring sand.

Q Okay. Well, I'm just looking at the second Bone Spring wells.

A Right. I believe I answered your question.
Q Okay. But did you ever look at the upper second Bone Spring thickness in the Nearburg [ph] well in the northeast quarter of section 18?

A You're referring to the one that Mr. Beck
and myself were discussing earlier, the -- the Packer [ph] 18 State Number 1?

Q Correct.
A Yes, sir. And I -- I commented that I -- I had in fact looked at that well. And that was when $I$ got into the explanation of every geologist picks a target differently, and we interpret that to be of different thickness than what Mewbourne does.

Q I guess my one final question is even if there is some pressure depletion, I mean, the effect, looking at the east half of section 18 would be something like 20 -- acreage pressure deplete.

It looks like a very small area of pressure depletion -- potential pressure depletion in the east half, east half of section -- virtual connectivity interruption -- have you calculated that area that's drawn in there?

A So we calculated, and what we show in Exhibit 6 and 7 is exactly that. Based on offset analogs, not a hypothetical number that we determined to be small or large.

MR. BRUCE: Well, Mr. Examiner, I think that's all I have for Mr. Asmus. But I'd still request that Exhibits B6 through B10, which are based on a lot of engineering factors, and I'm not able to
cross-examine the reservoir engineer, used by
Earthstone, it's putting Mewbourne at a disadvantage. And those exhibits and the related testimony should be stricken. Thank you.

THE WITNESS: Believe you're muted -MR. BRUCE: Mr. Hearing Officer, you're
on mute.
THE HEARING EXAMINER: Thank you.
Appreciate it. Mr. Bruce, before you began questioning this witness, I stated that $I$ was giving you wide latitude to try to determine whether there were questions that you had that this witness could not testify to.

I haven't heard any. And you're finished with your cross-examination, and the reason that $I$ would have ruled in your favor and took these exhibits out is if this witness was unable to testify to your question, but he has in every situation.

And so I'm going to overrule the objection. These exhibits are admitted into evidence.

And I want to know whether or not Mr. Lowe has any questions for this witness.
(Exhibit B6 through Exhibit B10 were received into evidence.)

MR. LOWE: Yes, sir, I have a few
clarification questions.
THE HEARING EXAMINER: Please.
MR. LOWE: Good afternoon, Jason Asmus.
THE WITNESS: Good afternoon, sir.
MR. LOWE: Just a quick thing on what you presented to us here.

THE WITNESS: Yes, sir.
MR. LOWE: Exhibit B5, I just want to get a -- I think you might've stated it, but the wells on the right-hand side of the page, the ones in red, are those the parent wells? Is that what you're here?

THE WITNESS: I'm calling those out as offset producing wells within the North Wilson Deep Unit, the $3 H$ and the $4 H$. Those are existing producers that are directly offset to the east that drill from north to south.

MR. LOWE: Okay. And those wells right now, who owns those wells?

THE WITNESS: Well, that would be Mewbourne.

MR. LOWE: And then Exhibit B8, B as in boy, can you just run through really quick on the oil ERO per foot hypotenuse bin chart here?

THE WITNESS: The EUR per foot?
MR. LOWE: Yeah. Yes, sir.

THE WITNESS: Yes. So that's an estimated ultimate recovery factor that we are calculating. And that is based on -- so if you look at the map in the top left, you can see our selected wells are in the -- the main color of blue.

Everything else is kind of in a -- a transparent coloration. So we pool from approximately 10-mile radius and look at the estimated ultimate recovery factor for all those wells -- analog second Bone Spring sand producing wells.

MR. LOWE: Okay.
THE WITNESS: -- we're just looking at how proppant intensity and how completion variation impacts performance on an EUR basis. So basically getting that -- the more -- the larger the completion design, but on some of these wells, at least based on local offset -- wells, the better the ultimate EUR recovery in production that you get.

MR. LOWE: All right. Well, thank you for that. And those are the only things that $I$ have. Thank you, sir.

THE WITNESS: Thank you.
Believe you're muted again, sir.
THE HEARING EXAMINER: I've been muting
myself to keep out the -- so that we've seem to have
developed -- were you and Mr. Lowe discussing Exhibit B8?

THE WITNESS: That is what he had asked about. Yes, sir.

THE HEARING EXAMINER: That's what I thought. Okay. I just wanted to be clear, because no one mentioned an exhibit number.

THE WITNESS: Yes, sir.
THE HEARING EXAMINER: Okay. Mr. Beck, is there any redirect for this witness?

MR. BECK: Briefly.
REDIRECT EXAMINATION
BY MR. BECK:
Q Mr. Asmus, going in reverse order there, you were talking about the mor -- in Exhibit B8, the greater proppant producing larger EUR recovery. Is that right?

A Yes. It's a general observation that we -that we, my reservoir engineering counterpart and myself observed that with improved EUR was an effect of increasing your stimulation design or increasing your completion design.

Q And how does that relate to Earthstone's application versus Mewbourne's application?

A I believe there was a difference in your
proppant intensity, 2,500 pounds per foot versus 1,900 pounds per foot.

Q Earthstone is proposing 2,500 --
A Earthstone is proposing 2,500. Yes, sir.
Q Which would, under this analysis, result in a greater expected EUR?

A Yes, sir.
Q The other question $I$ had is Mr. Bruce asked you about what he said was a small area pressure depletion under your analysis. Do you remember that?

A I remember him just mentioning that, yes.
Q And my understanding is that when Earthstone developed its application and decided to target the upper second Bone Spring formation, it took into consideration the depletion as expected from what Mr. Bruce referred to as that small area of pressure depletion; right?

A Now I can't really speak to what Mr. Bruce was referring to as -- in regards to small versus large. So that I'm not going to speak to.

But when you talk about depletion effects, that is exactly what went into our decision in increasing the vertical separation between the offset 3H and our upper second Bone Spring sand well, the 214.

MR. BECK: That answers my questions.
Thank you, Mr. Asmus.
Mr. Hearing Officer, that's all I have.
THE WITNESS: Thank you.
THE HEARING EXAMINER: You want to call
your third and final witness?
MR. BECK: I do, but I would really
like to take a five-minute break or if the reporter needs longer than that, longer. But I could use a break really quickly.

THE HEARING EXAMINER: Okay. Let's break until 3 p.m. It's 2:53 right now. Thank you.

MR. BECK: Thank you.
(Off the record.)
THE HEARING EXAMINER: Have a third witness for Earthstone.

Would you state and spell your name, please?

THE WITNESS: Yes, sir. My name is Nicholas Goree, $\mathrm{N}-\mathrm{I}-\mathrm{C}-\mathrm{H}-\mathrm{O}-\mathrm{L}-\mathrm{A}-\mathrm{S}$, last name Goree, G-O-R-E-E.

THE HEARING EXAMINER: Okay. You're under oath. Please proceed.

BY MR. BECK:
Q Mr. Goree, I'm looking at what's been admitted as amended Exhibit C. And it talks about your experience as a petroleum engineer in paragraph 4 and attaches your resume. For how long have you been working as a petroleum engineer?

A For 13 years, sir.
Q And what's your current position?
A Vice president of drilling for Earthstone Energy.

Q How long have you been the vice president of drilling for Earthstone Energy?

A I've been the vice president for a little bit over a year and a half now, and then inside the drilling department for -- since my employment for six years now.

MR. BECK: All right.
Mr. Hearing Examiner, Earthstone offers Mr. Nicholas Goree as an expert in petroleum engineering.

MR. BRUCE: No objection, Mr. Examiner.
THE HEARING EXAMINER: Thank you,
Mr. Bruce.
So admitted.

BY MR. BECK:
Q Mr. Goree, when did Earthstone Energy enter New Mexico?

A We closed on our acquisition of Chisholm in late 2022, and we've been in it since then, sir.

Q I'm going to show you what's been admitted as Exhibit C1. And the first line here in the exhibits shows the Chisholm acquisition. And how many wells did Earthstone acquire in the acquisition of Chisholm?

A Fully drilled 78. Those were actual horizontal wells that we've counted as drilled. There was multiple wells beyond that that -- that were vertical wells, et cetera, offset production.

But I'm -- in this display here, I'm only counting actually drilled horizontal wells, sir.

Q All right. And so in 2022, Earthstone acquired 78 horizontal wells that were fully drilled from Chisholm?

A Yes, sir.
Q Is Earthstone still the operator of those 78 wells?

A To my recollection, yes. I can't speak to where its trades or anything along those lines, sir, but yes.

Q And the next acquisition you talk about, it ties New Mexico into that.

A That happened as well in 2022. They had drilled 51 horizontal wells that we acquired in that acquisition. And to my best recollection, they are still underneath operatorship by Earthstone Energy.

Q And then what's the next line, reflect Earthstone operating wells.

A Since entering in and taking over acreage by Chisholm and with acreage over with Titus [ph], we have gone into that said acreage and have drilled over seventy -- 74 well -- horizontal wells since taking over that acreage in 2022 , sir.

Q All right. You also talk about the Texas Midland Basin and that you have -- you currently -- I assume that reflects that you currently operate an additional 136 wells in that Texas Midland Basin.

A That is operationally drilled 136 wells. The real numbers that are actually underneath operatorship are much higher.

Q Okay. And Earthstone operates additional wells and drills additional wells outside of just New Mexico and Texas Midland Basin; right?

A Yes, sir. We have operatorships in South Texas, as well, sir.

Q I'm going to show you what's been admitted as Exhibit C2. Do you see that on the computer screen?

A Yes, sir.
Q What's reflected in this exhibit?
A This is showing offset drilling data from where our -- let me back up. The red lines are our proposed wells if we were to get -- our proposed east half wells. We also see the proposed wells there on the west half that we will drill either way.

Our east half wells there -- our proposed wells are in red. And what you see there as far -marked by the purple Allen's [ph] date, those are wells that have been recently been drilled by us in the last three months.

And below there you'll see a DVD plot showing our well performance, and it's a little bit easier read, as far as overall -- rerelease there, as named, showing our drilling performance that we've been able to recently perform at.

Q And you may have mentioned this and it passed me, but I'm not familiar with -- what does RR stand for?

A That would be rig release from -- actually from Spunning [ph] -- well to rig releasing and moving
onto the next well on a said pad, we have obtained these days.

Q And that's 21.4 for the 11H, 10.2 for the 12 H , and 15.2 for the 13 H . Is that right?

A Yes, sir. That's correct.
Q In preparing for the hearing today, did you compare the AFEs of Mewbourne and the AFEs of Earthstone for these two competing applications?

A I did, sir.
Q All right. And let me show you -- do you want to give us -- why don't you give us sort of your 10,000-foot view of what that comparison shows before we go into the two details, if you would.

A Yes, sir. No. So overall it was found that Earthstone was going to be, based off of the AFEs, the more economical operator, as far as money expected to be spent on the wells.

That's the 50,000 viewpoint. And if we want to get into the actual specifics on -- discuss more of a breakdown between the drilling intangibles and tangibles side, as you can see here. What's notated in yellow is what $I$ really wanted to bring up, as far as the --

Q Let me stop you for one second, Mr. Goree.
A Sorry.

cutting to this claim.
As $I$ discuss here, do not see anything as far as closed loop or a cutoff following -- it is majority -- I haven't seen or heard of anyone out there building pits.

So -- and you have to usually haul off in the state. Of course, this is not federal land, so with it being state, you could do a pit, but it is a very long, lengthy process, and it is very rarely granted.

So I was kind of surprised not to see some sort of cost in there for a loss in cutting disposables inside the AFE that was presented to me.

And on the -- on the tangible side, as far as casing, anything that's actually in the wellbore itself, they had put their long string production over on the completion side. As you can see, I have a notation for the original completion side.

So to make these as more -- as apples to apples as $I$ possibly could, I didn't move that over from Mewbourne's side to represent what you would see here, as far as the long string casing that we do have as 882,000 that is being added on, since they are running a liner hanger, which is represented by the horizontal completion tools.

Q And so here in Exhibit c3, this is basically the line item by the line item breakdown, and it shows that for the two competing applications, Earthstone's proposed applications to drill the four wells result in a less amount of $\$ 388,300$ for drilling tangibles and intangibles. Is that right?

A That is correct, sir.
Q I'm going to show you what's been admitted as Exhibit C4, which you've prepared to us. Why don't you go ahead and tell us what's depicted on Exhibit C4.

A C4 is an evaluation of said AFE again of the completion facility intangibles and tangibles for both sides. As you can see, on the intangible cost side, Mewbourne and Earthstone are very similar in cost.

However, I will say on that, on a stimulation side, even only being a $\$ 3,260$ difference, we are pumping a vast -- we are pumping a larger completions job and pumping more sand.

So this would show that we have a greater price concession and/or a better operatorship of being able to pump away jobs quicker that would result in a lower cost to have the equal difference being of only $\$ 3,000$.
As we move over to our tangible cost side,
as you can see, the difference there is in Mewbourne's favor of 155,700 , resulting in a total completion difference of 152,440 -- I'm sorry -- it's in Earthstone's favor of 155,700 .

It was on the difference that we were more expensive on the intangibles. I apologize. So we have a total completion difference of 152,440 , which is in favor of Earthstone. What's notated in yellow there is the subsurface equipment and artificial lift.

We have a very much higher number than that of Mewbourne, and that's due to the fact that in these wells we are prepared to run ESPs. This will help us get a much larger volume of lift and production rates that will be able to get these wells online in a more economic manner for us.

Q And even with those uplifts and the substantial up front cost that will result in some costings down the road, Earthstone's tangible costs are still $\$ 155,700$ less than Mewbourne's proposals. Is that right?

A That's correct.
Q For these, when you looked at the two comparisons, if you can remember, make that comparison -- I'm showing you probably your face and mine -- sorry. Let me get to the right screen here.

I'm showing you what's been admitted as Exhibit 2-4 from Mewbourne, which is a AFE dated November of 2022. Is that the AFE that you used for Mewbourne?

A Yes, sir.
Q And then I'm going to show you -- look away for a second while $I$ go through these very quickly. I'm showing you AFEs for Earthstone dated -- I don't know if $I$ see the date on here -- that are part of a packet dated March 30, 2023. Are those the AFEs that you used for Earthstone's comparison?

A Yes, sir.
Q And for the record, that's part of Exhibit A3 for Earthstone. In terms of the AFEs and Earthstone's drilling plan, does Earthstone's drilling plan include -- does it include the consideration that the first Bone Spring formation may include sour gas or high levels of -- what is it -- hydrogen sulfide?

A H2S. Yes, sir. So we are in the same understanding that Mewbourne is that we will expect that we will have high H 2 s , but that is not begetting the fact that we want to produce these wells now.

We have found that it is better and more economic for us to drill all wells at the same time instead of coming back into a location later on where
most likely you will have to then go ahead and temporarily abandon and plug your wells to allow for safe production and drilling of your laterals that you're going to drill later on.

And or if you do not do that, you're going to have to do a pad extension, which will cause more surface damage that we'll have to reclaim at a later date --

Q -- the expenses of -- sorry. Go ahead, Mr. Goree. Go ahead.

A Oh, no. I -- you're fine.
Q Meaning that the expenses of -- meaning that Earthstone expects that it will be less expensive overall to go ahead and drill all the wells now as opposed to drilling only the second Bone Spring, and then later on coming back and drilling the first Bone Spring.

A Yes, sir.
MR. BECK: Thank you, Mr. Goree.
That's all $I$ have for you at this time.
THE HEARING EXAMINER: Mr. Bruce?
MR. BRUCE: Just a couple.
CROSS-EXAMINATION
BY MR. BRUCE:
Q First, now AFEs are always just estimates.

Aren't they?
A It's the best estimate that we can give at the time, since that's what our partners would be --

Q Yeah. And you would like to understand the AFE. Isn't that common?

A I -- well, it depends on the operatorship. You try to come in at AFE, but it would -- you would like to come underneath it. Yes, sir.

Q Now have drilling costs come down in the past year?

A That's a broad basis question, sir. I mean, it would depend on your area of operations, et cetera. I can't answer that specifically without more of a specific --

Q I'm trying --
A Also offshore costs are -- offshore costs, onshore costs. I mean, I -- I need a little bit more specifics than that, sir, I'm sorry.

Q I mean, I'm not talking about Eddy County. I'm just saying here in this area of Lea County, drilling -- you said you've drilled wells in this area. Have they come down in the last year?

A As far as costs?
Q Yeah.
A I mean, I can speak to our -- our costs.

Operationally more effectively, we're drilling faster than other operators. So yes, our costs have come down.

Q Okay. And then you said -- really this is just off the cuff. I just want to make sure. You said you operate 136 wells in the middle of the basin. Those are all in Texas. Aren't they?

A Yes, sir. That's Texas wells. Yes, sir. Those are all -- and we operate vastly -- I would say that an answer to that, sir, is those are wells that we have drilled. We operate vastly a larger number than that.

Q Okay. Wait a minute. Let me go through a couple others. And so in your opinion, Earthstone is a prudent operator.

A Yes, sir.
Q And do you think Mewbourne is a prudent operator?

A I can't speak on behalf of another operator, as far as opinions. That's just an opinion. MR. BRUCE: That's all I have, Mr. Examiner.

THE HEARING EXAMINER: Mr. Lowe?
MR. LOWE: Good afternoon. I don't have any questions. Mr. Bruce took care of most of
them, so thank you.
THE WITNESS: Thank you.
THE HEARING EXAMINER: Thank you,
Mr. Lowe.
Mr. Beck, is there any redirect?
MR. BECK: No, Mr. Hearing Examiner.
Mr. Goree may be excused.
THE WITNESS: Thank you.
THE HEARING EXAMINER: Does that conclude your case in chief?

MR. BECK: Yes, Mr. Hearing Examiner.
That concludes our case in chief.
THE HEARING EXAMINER: Okay. Now,
Mr. Bruce, it's my understanding that you'd like to put on a rebuttal case.

MR. BRUCE: That is correct.
THE HEARING EXAMINER: Okay. What are you rebutting?

MR. BRUCE: Well, I think a couple of things that just came up. But first off, the exhibits -- the affidavit of Mr. Stowers marked -- he talks about the gun barrel diagrams, which Earthstone raised with its filing of exhibits, and also the completion intensity factors, which Mewbourne really saw no need to address, and I would address that with

Mr. Stowers.
Couple other things that just came up, Mewbourne has been operating in this state since 1975, Mr. Examiner. I couldn't get the other side to admit that Mewbourne is a prudent operator. So I would like to address that.

And then since I couldn't get the reservoir engineering exhibits dismissed, I would like to ask Mr. Stowers just a few brief -- couple of brief questions on the reservoir engineering.

THE HEARING EXAMINER: So before I go to Mr. Beck for his response, I want to make sure I understand what you're rebutting, because your connection goes in and out. So just give me a quick list here.

MR. BRUCE: Okay. Just came up is Mewbourne a prudent operator, number one. Number two, address some of the drainage issues raised by the geologist for Earthstone.

And then what is contained in paragraph 5 of Mr. Stowers' -- and his two exhibits, 11A and 11B, regarding the -- the proppant and laterals for the fluid and proppant intensity, and then the gun barrel diagrams, which --

THE HEARING EXAMINER: Okay. Hold on a
second. Let's go back. I understood what you said when you talked about additional drainage issues on the diagrams that came in over your objection. What came next I didn't hear again. What is it?

MR. BRUCE: What I was bringing -- what
I was going to bring up -- and this is in Mr. -- to a certain extent in Mr. Stowers' affidavit, Earthstone would not admit that Mewbourne is a prudent operator, and I would like to say something very briefly about that. That's item two.

And then item three is the gun barrel issue that Earthstone is pushing. And then the completion proppant intensity, which was brought up in their exhibits filed Thursday. So that's what I would like to bring up.

THE HEARING EXAMINER: Okay.
Mr. Beck?
MR. BECK: Let me address these in a different order. In terms of Mewbourne being a -- I guess what you said is a prudent operator, certainly that's not rebuttal testimony.

The division's order makes clear that the applicants, you know, put forth their ability to have a superior development plan that -- to protect relative rights to not waste.

And it's clear that both parties are on notice when they're submitting competing applications, that the division will take into consideration a comparison to each other, so that Mr. Goree and Ms. Redfearn in her testimony testified both about Earthstone's operation does not mean that it's rebuttal testimony that Mewbourne decided not to put that forth in their case in chief.

And that Mr. Goree testified that the company for which he's worked for -- I don't have his resume in front of me, but somewhere in the range of ten years as a prudent operator in a company for which he's never worked for which he does not have experience and said he can't testify about, doesn't mean that that opened a door -- when it was not asked by me in direct opened a door to putting forth evidence that obviously should've been put forth at the front end.

In terms of the rebuttal testimony for spacing and proppant, in terms of the spacing, I -and I assume that I'm probably not the only one in the room, but $I$ just don't know enough about this issue to say that Mewbourne should have been put on notice on the front.
I'm still -- so I still think that it's
improper under the Court's pre-hearing order, but I certainly can see where the Court -- excuse me -- the division's pre-hearing order. But I certainly can see where there's more room for that testimony to be admitted.

And in terms of the proppant, I don't know, again, that issue well enough to know whether Mewbourne would've been put under notice outside of what was filed in our exhibits.

And so let me say that obviously, you know, we're all here together every other week for years and years.

And so if that's the case and those two areas, the distance of the wells, for lack of a better word, and the proppant intensity are something that Mewbourne would not have known about before exhibits are, then Earthstone thinks it's proper and that that be rebuttal testimony.

But in terms of going into Mewbourne's operations and whether it's a prudent operator, Earthstone still stands on that objection.

THE HEARING EXAMINER: And then there were two other issues, Mr. Beck. One is the additional drainage issues on the diagram. I wasn't sure which diagram Mr. Bruce was talking about. Do
you know?
MR. BECK: My expectation is that he's talking about the Exhibits B6 and B7 or B8 and B9 that we talked about.

And so long as Mr. Stowers' testimony is counted to those issues, as I read it in Exhibit 11, 11A and 11B, another set, if they weren't on notice until it -- assuming that's the case, and I have no reason to question whether it is, then that seems to be rebuttal testimony that $I$ think is --

THE HEARING EXAMINER: And finally we have the gun barrel issue.

MR. BECK: I think that falls in line with the same thing. My understanding is that that goes in line with what is found in Exhibits 11, 11A, 11B, which I understand from Mr. Bruce and from Mewbourne that they were not on notice of in any way, shape, or form until we filed our exhibits. And I think that's proper rebuttal testimony.

THE HEARING EXAMINER: Okay.
Mr. Bruce, $I$ am going to allow rebuttal testimony on the issues that were raised by these exhibits starting with B6 through B10. Please confine your questions and your witnesses' answers to those issues.
I'm not sure, because I don't know

Exhibit 11 well enough to know whether that Exhibit 11 is confined to those issues. So I'm not going to admit Exhibit 11 at this point. Let's deal with these issues that you've raised. Are you ready?

MR. BRUCE: Sure, Mr. --
THE HEARING EXAMINER: And is your
witness available on the screen?
MR. BRUCE: I don't know if he's on the screen, but he's here.

THE HEARING EXAMINER: He's here.
MR. BRUCE: In virtual --
THE HEARING EXAMINER: Has he been sworn in?

THE WITNESS: I have.
MR. BRUCE: Yeah, he was sworn in.
THE HEARING EXAMINER: You have? Would you state your name and spell it for the record, please?

THE WITNESS: Yes, sir. It is Nick Stowers. That's N-I-C-K S-T-O-W-E-R-S.

THE HEARING EXAMINER: Okay.
Mr. Bruce, proceed.
MR. BRUCE: Mr. Examiner, Mr. Stowers'
affidavit shows that he's an engineer for Mewbourne. He has not previously testified before the division.

Paragraph 3 of the affidavit is educational or employment background. And he has worked both as a reservoir engineer and an operations engineer.

And $I$ would tender him as an expert petroleum engineer.

THE HEARING EXAMINER: Okay. Hold on. Let me find your exhibit. Give me a minute here. I think it must be pink in color.

MR. BRUCE: Pink. Yeah.
THE HEARING EXAMINER: I see it. So self-affirming statement of Nick Stowers, an engineer for Mewbourne. Hold on a second. Let me just review it. So that's Exhibit 10. This is 11, self-affirming --

Mr. Beck, have you reviewed Exhibit 11 yet?
(Mewbourne Exhibit 11 was marked for identification.)

MR. BECK: Yes, briefly.
THE HEARING EXAMINER: Briefly. All right. Why don't we take -- let's take five minutes and just review -- it's only two pages. Let's take five minutes, just review this Exhibit 11 and see if Mr. Beck has any objections to this exhibit coming into evidence.

So I'm not going to stop my video. I'm just going to read this exhibit.
(Off the record.)
THE HEARING EXAMINER: Okay. Mr. Beck, is there anything in Exhibit 11 that you would argue is outside rebuttal testimony?

MR. BECK: Yes. That would be paragraphs 7 through 10 .

THE HEARING EXAMINER: Okay. Mr. Bruce, if we admit Exhibit 11 -- I'm wondering how best to do that. We admit Exhibit 11 in part. I wonder if it would be too confusing and that maybe you should resubmit Exhibit 11.

MR. BRUCE: I have no problem doing that. My comment is that, you know, my landman and geologist did testify as to Exhibit 7 and 8.

I think paragraph 9 should be in there, because they made a big point of showing their experience in New Mexico. And Mewbourne has been around a long time, drilled a lot of wells, and has a pretty good record with the division.

Paragraph 10, can either take it or leave it. But $I$ think paragraph 9 is proper. But if you want me to resubmit it, excise a couple of paragraphs, I'd be willing to do so, Mr. Examiner.

THE HEARING EXAMINER: Okay. Let's do that. Let's keep this simple. So the objection by Mr. Beck was to which paragraph, sir?

MR. BECK: Seven through ten. So 7, 8, 9, and 10 .

THE HEARING EXAMINER: Okay.
Mr. Bruce, how long would it take for you to -- after this hearing concludes -- hopefully soon -- how long would it take for you to submit a amended Exhibit 11?

MR. BRUCE: Tomorrow morning.
THE HEARING EXAMINER: Okay. Perfect. Done. Okay, Mr. Bruce. I'm going to admit Exhibit 11 -- Mewbourne's Exhibit 11 into evidence with the caveat that you are going to resubmit it and omit paragraphs 7 through 10 .

So why don't you go ahead and put on your rebuttal witness now, and ask him questions in regards to the exhibits that were admitted over your objection. And I think those were B6 through B10.

And if your witness could please refer to the exhibit that he is testifying about when he answers a question, it would be appreciated. Thank you.
/ / evidence.)

MR. BRUCE: Okay.
DIRECT EXAMINATION
BY MR. BRUCE:
Q Well, first, Mr. Stowers, I need to get the geologist affidavit here for Mr. Asmus. And I think if we just went to, oh, say, his Exhibit B7. And he talked about this, the little green egg in the lower right corner, as representative of a depleted reservoir region.

Now when you're looking at this from an engineering standpoint -- when you're looking at area of drainage or pressure depletion, what factors do you look at? I mean, estimated ultimate recovery. Any others?

A Other factors that would be considered would be volumetric factors of the reservoir, such as porosity, water saturation, height and width of the reservoir, and then the recovery factor for the reservoir, as in how much of the oil in place you estimate to be recovered, 'cause that influences how -- how big or small the drainage area would be, and depending on whether or not you're using an estimated ultimate recovery or a recovery to date.

Those would be some other factors that would go into that analysis.

Q Would it also depend on the geology of characteristics, like porosity or thickness across the study area?

A Yes, sir. Those would greatly influence the study. Those would be the volumetric influences that I spoke of earlier.

Q Okay. So viewing that, we don't really know what factored in to, say, Exhibits BC and B7.

A That is correct. We do not have the underlying data that would have went into B7 or B6 that would show us what assumptions were made to create those drainage bubbles. That is not stated, nor was it stated in the direct testimony.

Q And I think the ultimate recovery number -I never got a firm answer on whether he was using production to date or estimated ultimate recovery. That would be a big factor. Wouldn't it?

A Yes, sir. That would be a -- a factor that would drastically change the size of that bubble.

Q And even if you look at that bubble, and of course, you know, he's picking out an area, many, many, many years ago when people would talk about drainage radius they'd have a circle.

This is more of an oval. Even then, there's only a very small area in the south half, south half of -- or actually in the southeast quarter, southeast quarter of section 18 that's affected. Is that fair to say?

A Yes, sir. That is correct. When you're looking at this diagram, it is as if you were staring down the wellbore.

And I believe what you're referring to is the fact that this offset well, the North Wilson Deep Unit number $3 H$, only offset the affected lands for $1 / 2$ mile. And that would be the southernmost portion of section 18 , the -- the south half of section 18.

The North Wilson Deep Unit 3H was drilled from the center of section 17 south 2 miles.

Q And this is only -- this is kind of speculative at this point. Wouldn't you agree?

A Yes, sir. I -- I would agree without knowing the -- the numbers that went in to this analysis.

Q And based on Mr. Carrell's testimony, wouldn't you agree that the best thing to do is to drill the lower second Bone Spring?

A Yes, sir. Our analysis of the log characteristics in the immediate area is what drove
our decision to place the -- the well in the lower second Bone Spring sand.

That coupled with our analysis of some offset producers in the -- the upper second Bone Spring sand and accompanying offset producers in the lower second Bone Spring sand.

Q And well, when you look at log characteristics, the one well log in Mr. Carrell's Exhibit 12 was in the northeast quarter, northeast quarter of 18, I believe.

And I think Earthstone's geologist said, "Well, it only affects -- that's only localized to the east half, east half well." That's not what that cross section shows, is it?

Because the other wells in that Exhibit 12, they're about a mile and a half away from the northeast quarter of section 18. Is that fair to say?

A The other wells in the cross section in Exhibit 12 were a mile and a half away. I believe I'm referring to the well in $13 B$ and the well in $20 C$.

Q And, I mean, would it be -- you get a -- I mean, there is -- well, there's two things. You've already said that the geology can be variable, and that affects certain things.

But would you expect to drill a well in the
northeast, northeast of 18 and have that thin reservoir only affect a very small distance away from that wellbore?

A We can only make assumptions off of the data that we have. And we take that into account. That being the closest data point to the proposed wellbore led us to make the decision to go into the second -the lower second sand.

Q Okay. But again, any pressure draw down on the proposed 9 H well is speculative at this point, and -- would you agree with that?

A I would say that the amount of impact from offset depletion is speculative at this point.

Q Okay. And to prevent any, isn't it best to drill, rather than move the well -- to drill now and offset any potential drainage?

A To protect the rights of the owners within our unit, that is correct.

Q Okay. Well, let's move onto your Exhibits 11A and 11B. And I'm not going to get involved in paragraphs 5 and 6 of your self-affirmed statement. Could you describe what those exhibits are and what they show?

A Yes, sir. I'll start with --
Q And what --

A I'll -- start with exhibit -- go ahead.
Q No. Go ahead. You go ahead -interruptions.

A Okay. I'll start with Exhibit 11A. As I've stated, this is a gun barrel diagram of Mewbourne's inland 26 23, and also our -- the western most well of our Dolly Varden 2524 development. This is just showing the -- this is another diagram looking -- as if you were looking down the wellbore of these wells.

And it shows their lateral distance from each other east and west, and it also shows where they are relative to each other in a sub $C$ sense.

And then there is a box associated with each well that gets the well main, the 12 -month cumulative oil production per lateral foot, the completion size, and the first production date.

And the purpose of this exhibit was just to draw attention to the fact that there is quite a bit of variability in this area within this reservoir with respect to productivity, and that it is not as simple as "Space your wells much farther apart and increase your proppant intensity."

I showed that our Dolly Varden 2524 was a -- a parent well. It was offset by our inland 2623 B2PI. They were roughly 1,000 foot apart. The inland
had a roughly 2,500 pound per foot completion. Its 12-month oil cumulative production was 25 barrels of oil per foot.

And then I compared that with the inland 2623 B2NK. On the other side it was spaced farther apart, roughly 1320 from its offset, and it also had 2,500 pounds per foot, yet it achieved a very similar 12-month cumulative oil production per foot, being 23 barrels of oil.

Q So there is really no firm correlation is what you're saying.

A Yes, sir.
Q And then Exhibit 11B.
A Yes, sir. Exhibit 11B, the upper portion of the page is a map, area of second Bone Spring sand producers around the subject lands. And those are the blue stakes on the map. The subject lands are outlined in a dashed red line.

And then beneath that is a graph of proppant intensity on the $X$ axis versus 12 -month oil cumulative per lateral food on the $Y$ axis.

I created this as a -- as a rebuttal
exhibit, because of the assertion that proppant intensity is directly correlated with oil EUR.

I think that that is a much safer assertion
when you're discussing 500 pounds of proppant per foot versus 2,000. But in these particular hearings, we are looking at 2,000 pounds per foot versus 2,500 pounds per foot.

So I -- I took the -- the data of wells in this area that were completed with greater than 1,900 pounds per foot and plotted it versus cumulative oil production.

And then $I$ did a -- a best fit linear trend line. And the entire point of this is that there is no discernible correlation in this data set that would say, "Increasing your proppant intensity from 2,000 to 2,500 yields greater oil productivity."

And that's evidenced by the fact that our squared value, which is quote, unquote your goodness of fit, is very low. I -- I also --

Q And so --
A Oh, one more thing, Bruce. Sorry. I also noted we've referenced this well several times throughout the proceedings today. The -- the upper second sand well in section 13 that Mr. Carrell referenced, $I$ highlighted it on the map with an arrow, and then a box.

And it is also represented by that yellow dot in the -- in the graph on the bottom. So despite
it having 2,600 pounds per foot and no offset wells, it's still one of the lowest wells on the graph, as far as 12-month cumulative oil per lateral foot.

Q Okay. So there's -- in other words,
Mewbourne's proposed completion procedure is perfectly normal.

A I would -- I would say so.
MR. BRUCE: I think that's all I have, Mr. Examiner.

THE HEARING EXAMINER: Okay.
Mr. Beck? Mr. Beck, if you need a few minutes to prepare questions, I understand that this witness came out of left field, and we can take a few-minute break.

MR. BECK: Thank you. I'll take --
THE HEARING EXAMINER: Sorry, sir. I didn't hear you.

THE WITNESS: Think you're muted.
MR. BECK: I was muted. No. I'll give
it a go.
THE HEARING EXAMINER: Okay. Please.
MR. BECK: Mr. --
THE HEARING EXAMINER: You're cutting
in and out. We can't hear you. We cannot hear you.
MR. BECK: I don't know why I got
muted. Can you hear me now?
THE HEARING EXAMINER: Yes.
THE WITNESS: I can hear you now. CROSS-EXAMINATION

BY MR. BECK:
Q All right. I'm looking at 11B in front of me. And I think it's probably in front of you too; right?

A That is correct, sir.
Q Okay. I think you were critical of Exhibits B6 and B7 because they didn't have the underlying data shown. Is that what you said?

A I was critical of the drainage bubble. Yes, sir.

Q Okay. And so if we look at the drainage bubble here on Exhibit B7, what's your criticism about underlying data not shown?

A Mr. Bruce and I already discussed this. All the assumptions that go into calculating a drainage area, such as recovery factors, volumetric assumptions, porosity, fluid composition of the reservoir, height and width of the drainage area are not disclosed.

This does show a cumulative barrel of oil per foot, which is one thing that you would need to
calculate a drainage area, but not the rest of the data. And that data was not discussed.

Q Okay. And where would you get that data if you want to know that data for the North Wilson Deep Unit 3H?

A If I wanted to do that, I'd perform that analysis.

Q Okay. Do you know whether --
A -- that --
Q Do you know whether Mr. Asmus performed that analysis with the data?

A I believe he stated that this was a representation created. He did not state whether it was him or the -- the reservoir team, but stated that it was created off of offset analogs.

And to be honest, $I$-- I don't know if that's analogs in Lea county, in the Delaware Basin, in Permian. So judged off -- based off of what I heard, I do not know.

Q Okay. You didn't know that underlying data when you read this for the first time, what, Friday; right?

A That is correct.
Q Okay. And now if $I$ look back at Exhibit 11, which was disclosed on Tuesday, nowhere in here does
it criticize not having the underlying data or not knowing where these analogs are located; right?

A We did not put that in this statement you are referring to. That is correct.

Q So the criticisms you just went through for B6 and B7, the underlying data, the porosity, the water saturation, recovery factor, the height and width, the first time that any of us heard about those criticisms you had with those exhibits was just a few minutes ago in your direct testimony here, not in any kind of written statement; right?

A That is correct.
Q Okay. Do you think that if you would've written on Tuesday these criticisms that Earthstone would've provided you answers today to where that data came from, where those analogs are located?

A That is a hypothetical that I do not feel comfortable answering.

Q That's fair.
THE HEARING EXAMINER: Mr. Beck?
Mr. Beck, can you hear me?
MR. BECK: Yeah. I can hear -- all right.

THE HEARING EXAMINER: Okay. Mr. Beck,
I realize that this information is coming as a
surprise to you. So if you want to bring back your witness as a rebuttal witness to this testimony, I will allow you that narrow focus. MR. BECK: Thank you. Noted. BY MR. BECK:

Q Getting back to Exhibit 11 --
A Yes, sir.
Q Are these dots on the lower left-hand portion -- I guess what those are showing is that there's -- these are the lowered propensity around 2,000 pounds per foot. And it's showing what with those?

A So that is a graph of proppant intensity versus cumulative 12 -month oil production per lateral foot. I use that number as a -- as a metric to gauge productivity.

I -- I try to stay away from EURs and things like this, because that's a subjective number, much like a geologist interpretation -- can give five different reservoir engineers and EUR number or tell them to put an EUR and you'd get five different numbers. One-year cume does not lie.

So I use that as a stand-in for productivity. And this just shows and -- and refutes the assertion that there is a correlation that would
yield increased productivity when increasing your completion intensity from 2,000 pounds to 2,500 pounds per foot, which are the two different scenarios we are talking about today.

Q Should these dots on the left-hand side -is this 12 months cumulative from 0 to 45 -- is that the first 12 months for each one of these or what 12 months is that?

A Yes, the first 12 months.
Q Okay. And which one of these are parent wells versus child wells?

A I didn't break those out within these. So this is all wells. So it will be a mixture of parent wells and child wells.

Q Okay. And based on Exhibit 11A, you'd agree with me that the child wells are less productive than the parent wells in the first 12 months; right?

A Looking at the wells that are just represented in 11A, parent wells in 11A were more productive than child wells.

Q Okay. And so would you expect that in 11B parent wells would be less -- or would be more productive than the child wells, regardless --

A I think that -- go ahead. Sorry.
Q Yeah. If they had the same proppant -- the
same propensity, would you expect that parent wells would be more productive than child wells?

A I would say that many factors would go into that, and I -- I couldn't make that assertion. For instance, that -- that Bruce Keplinger well that we referenced earlier, the yellow dot is a standalone well, the "parent."

And I could not say without a deeper dive into the data whether or not there are instances of child wells in this dataset outperforming their parents, quote, unquote.

I can say that $I$ have seen that in my time analyzing data in New Mexico. But with this specific dataset, I couldn't speak to that.

Q Well, I mean, we see that in 11A; right? Because what we see is that the inland one in the middle, 2623 B2OJ 12-month cumulative, that was 31, whereas the two children next to it were 23 and 25, which is -- well, it's 7 of the 31.

That's almost 25,30 percent less productive, right, for the children versus the parent?

A I have stated in this specific example that it could be said that the parents are more productive than the children.

Q Okay. And so it's possible, you'd agree
with me, on 11B that by including the children and the parents here, we lose some data that we might compare as to whether proppant intensity has any correlation to production in that first 12 months.

A I -- I don't believe I understand your question. Could you rephrase it, please?

Q Yeah. Let me break it down for you. Eleven A we said that at least eleven $A$ reflects that parents are more productive than children; right?

A In that specific instance, yes, sir.
Q Okay. And this looks at five different wells. And what we see is that the parents have less proppant intensity than the children.

A That is not true.
Q Which one is it not true for?
A I believe if you look at -- if you look at -- oh, excuse me. These are codeveloped. I misspoke. That is -- that is the case with respect to the B2PI, the B2ED, and the B2NK has a higher proppant intensity.

Q Okay. So the children have a higher proppant intensity than the parents in 11A; right?

A In this specific one, yes, sir.
Q And notwithstanding that, the children have a lower production than the parents?

A That is correct.
Q Okay. And then if we look at 11B, which you say shows that there is no correlation between proppant intensity and production, we can't tell which of these low production and which of these high production are parent versus child; right?

A That data set is not broken out in this exhibit. Yes, sir.

Q The only one we do know, because you focused your attention in on this one, is this MTDR Bruce Keplinger; right? We know that there is no other parent or child. It's just the standalone.

A That is correct.
Q Okay. And did you hear the testimony today from Earthstone's witnesses that said they agreed, all things being equal, they would like to target the lower half of the second Bone Spring than the upper?

A I believe I heard them say they preferred that target. Yes, sir.

Q All right. But they didn't go with their preference. Did they?

A As evidenced by their proposals, no.
Q Okay. And did you hear the testimony today that they didn't do that, because their analysis, the proppant intensity and the analysis of the possible
depletion from putting the well on that lower second Bone Spring?

A I heard the evidence that they testified to
Q And you heard them say what I just asked you?

A Yes. I heard their arguments.
Q Let's take you back to Exhibit 11A here. And I guess this is showing that roughly the same depth, even when you have spacing of 1,320 feet and 1,480 feet between parent and child, you're still seeing a decreased production rate for those children; right?

A I -- I don't believe you're accurate with your statement of 1,480 . I would refer to those wells as co-completed. The B2PI and the B2OJ came online at the same time. So that would not be a -- a parent/child pair.

Q Okay. And so if I'm looking at that, what that's showing is that -- it's showing that when you have two wells coming on at the same time, for some reason there's a lower production rate from the inland B2PI than there is from the inland B2OJ; right?

A That is correct.
Q Okay. And when we're looking, the B2OJ that came on the same time has higher output, has a lower
proppant intensity; right?
A That is correct.
Q Okay. And that's 1,480 feet from the inland B2PI; right?

A That is correct.
Q Okay. And then when we look at the B2PI that's only 1,000 feet from the Dolly Varden, we see that even though it has about 500 more pounds per feet of proppant, it's less productive; right?

A That is correct. I believe we already covered this.

Q Okay. And you can't get from this that closer spacing between an already producing well and one to be drilled reduces the expected production from that later produced well at the same depth?

A Based on this specific exhibit, I -- I would not say that, as evidenced by the fact that the B2NK, which is 1,320 feet from its "parent," the B2OJ, cumulatively produced 23 barrels of oil per foot, whereas the inland B2PI, which is 1,000 feet away, produced 25.

So that -- that would kind of fly in the face of that statement.

Q Well, I mean --
A Which was the -- the point of the exhibit.

Q -- the B2OJ was in production, what, nine months before the B2NK; right?

A That -- that looks -- that looks right.
Q Okay. And then so we have one that's in production first and another one that's in production second. And this one is over 1,000 feet, as you point out, 1,320 feet from it. And it's producing -- again, it's about 25 percent less oil; right?

A I'm -- I'm speaking comparing the -- the B2NK and the B2PI, the -- the children wells. The two child wells in this exhibit, the one that was spaced farther from its parent produced less than the one that was spaced closer to its parent with respect to the B2PI when compared to the B2NK.

Q Okay. And we can't get from this, I assume -- and you couldn't tell me, right, if that inland B2NK you're talking about was less than 1,000 feet, as Mewbourne's proposing, whether that 23 would be less, because it was closer. You can't give me that answer.

A I could not.
Q Okay. But at least we know that same depth a well drilled after the well next you have that same depth, from this we can see that it lost -- at least talking about that $B 2 N K$ and the B2OJ, it lost about 25
percent of what was being produced from that B2OJ; right?

A I -- I haven't calculated the -- the math, but I'll -- I'll trust you on it.

Q Okay. Is it possible that that could be because they're close enough that there's this depleted reservoir issue between those two?

A Which two are you referring to, sir?
Q The two we just talked about. I'm sorry. It's craning my neck, but it's the B2NK and the B2OJ.

A And what's your question about those?
Q My question is, is that that lesser production from the B2NK compared to the B2OJ could be because they're at the same depth and were running into this depleted reservoir issue.

A It could be. It could be a number of -- any one of a number of factors.

MR. BECK: That's all I've got,
Mr. Hearing Examiner. Thank you.
THE HEARING EXAMINER: Mr. Lowe?
MR. LOWE: Good afternoon. Can you
guys hear me?
THE HEARING EXAMINER: Yes, sir. We can hear you.

THE WITNESS: Yes.

MR. LOWE: Just to get, I guess, a cumulative response on the data shown in Exhibit B, the graph --

THE WITNESS: Eleven B? Is that what you said, sir?

MR. LOWE: Eleven B. Yes.
THE WITNESS: Yes, sir.
MR. LOWE: The blue dots, those are basically -- are they all your wells or are they just wells in the vicinity?

THE WITNESS: They are all the wells that are on this map represented by a blue wellbore. And those are -- there's a combination of many operators in the area, Mewbourne, Permian Resources, Earthstone, one in the same, Matador.

MR. LOWE: Okay. And they're all
basically in a second sand Bone Springs?
THE WITNESS: All of the wells that are represented on this map are in the second Bone Spring sands.

MR. LOWE: Okay. And then the yellow dot is basically the Bruce Keplinger well, and that's what you have there.

THE WITNESS: Yes, sir. It's the well that is shown by that little fall out box with the

| 1 | arrow. It's the 1-mile well in section 13,21 south, |
| :---: | :---: |
| 2 | 34 east. |
| 3 | MR. LOWE: Okay. And then on the |
| 4 | access of the chart on 11B where it says, "Sand per |
| 5 | foot pound" -- |
| 6 | THE WITNESS: Yes, sir. |
| 7 | MR. LOWE: -- is that correct? |
| 8 | THE WITNESS: That is -- yes, sir. |
| 9 | That is represented of the pounds of proppant pumps |
| 10 | per lateral foot. |
| 11 | MR. LOWE: Okay. All right. |
| 12 | THE WITNESS: Also referred to as |
| 13 | proppant intensity. |
| 14 | MR. LOWE: Okay. All right. Let's see |
| 15 | here. Okay. Those are the only questions I got. |
| 16 | Thank you for clarifying. Thank you. |
| 17 | THE WITNESS: Yes, sir. |
| 18 | THE HEARING EXAMINER: Mr. Bruce, is |
| 19 | there any follow up to those cross-examination |
| 20 | questions? |
| 21 | MR. BRUCE: Just a couple, |
| 22 | Mr. Examiner. |
| 23 | REDIRECT EXAMINATION |
| 24 | BY MR. BRUCE: |
| 25 | Q Mr. Stowers, look at your Exhibit 11A. |
|  | Page 294 |

A Yes, sir.
Q And starting on the left-hand side, the first two wells are completed in the same month. Aren't they?

A That is correct.
Q And there's a variability there a little bit.

A That is correct.
Q And then the next two wells, they were completed both in March of 2021. So they've been -they were completed more or less simultaneously.

A That is correct.
Q And there's still a little variability there.

A Yes, sir.
Q And so can't that go into other reservoir quality, reservoir thickness, things like that?

A Yes, sir. I would say that there are many factors that could play into the -- into the variability and production results seen throughout the area.

Q And I don't know, and therefore, being a good attorney, I make sure to not ask these questions, but are these good wells? Are these good productive wells?

A We are pleased with the results we have seen out of this particular development. Yes, sir.

MR. BRUCE: Thank you.
MR. BECK: Mr. Hearing Officer, since I -- you'll indulge me with one or two more questions.

THE HEARING EXAMINER: Mr. Beck, based on the redirect?

MR. BECK: Sure.
RECROSS EXAMINATION
BY MR. BECK:
Q Mr. Stowers, comparing the two left inland wells that were drilled at the same time, I think you recognize that they were drilled at the same time, but they have different levels of cumulative output; right?

A That is correct.
Q And they also have different levels of proppant, right, with the lower producing well having a lower proppant amount than the higher producing well?

A That is correct by what's evidenced on this exhibit. Now that you have drawn my attention to that, that may be a typo. Those numbers may need to be flipped, but $I$ couldn't say for certain, so that -that could be an -- error on -- on my part.

Q You can't say whether the proppant values in this exhibit is accurate?

A With respect to that specific inland, 2623B2ML, that is correct.

Q Okay. Who prepared this exhibit?
A I did.
Q Exhibit 11B, there's been a lot about the Keplinger well. Do you remember talking about that a lot today and hearing Mr. Carrell talk about that a lot today?

A That is correct.
Q Are you aware that that -- what you've all been referring to as a low producing well is a 1-mile lateral well?

A Yes, sir. That's why in all of my production numbers that we have been referencing, they are based on cumulative oil production per lateral foot to normalize between 1 mile, 1 1/2, and 2-mile wells.

Q Okay. Do we know which of these wells on Exhibit 11B are 1 -mile wells versus $2-m i l e ~ w e l l s ?$

A No, sir. We do not.
MR. BECK: That's all I have,
Mr. Hearing Examiner. Thank you.
THE HEARING EXAMINER: Okay.

Mr. Bruce, it's come to my attention that Exhibit 11A may have inaccurate information. What are you going to do to correct it? Mr. Bruce, are you there?

MR. BRUCE: Yes. Sorry. Yes. I -- I can get together with Mr. Stowers and have him look at the data, and have him verify it. That may take more than the one day I'm going to use to correct the other -- the affidavit itself, as you asked me to do.

THE WITNESS: I can get it to him by tomorrow morning most certainly.

THE HEARING EXAMINER: All right. So I am expecting two things from you, Mr. Bruce. Number one, you are going to resubmit Exhibit 11 to omit paragraphs number 7 through 10 , and you are going to revise 11A to correct any incorrect data.

And, Mr. Stowers, would you please mark any changes in the data in a different color ink, so that it's really obvious?

THE WITNESS: Yes, sir. I can do that.
THE HEARING EXAMINER: Okay.
Wonderful.
And, Mr. Bruce, would you please mark Exhibit 11 as Amended Exhibit 11 and Exhibit 11A as Amended Exhibit 11A?

MR. BRUCE: Oh, absolutely. I will -I usually do that. Thank you.

THE HEARING EXAMINER: All right.
Excellent. Mr. Bruce, are you done with your rebuttal case?

MR. BRUCE: Yes, I am. And the only thing I was going to ask is how you wish to proceed. We've had a nice darn long -- and that's not a word $I$ use often -- hearing and a lot of stuff to digest. And I was going to -- and I haven't had a chance to speak with Mr. Beck about this, so I'll let him have his input.

If you would like a written closing argument, it's getting late, and it may make more sense to get the affidavit, and these revised exhibits, and do a written closing at your convenience, and you can limit the length of them as you see fit. I'm usually pretty concise in what $I$ write.

THE HEARING EXAMINER: Okay.
Mr. Bruce, thank you for bringing that up. However, I haven't closed the evidentiary record yet. I'm still looking to Mr. Beck to find out whether he is going to present a rebuttal case or not.

MR. BRUCE: Okay. I forgot. Sorry.

MR. BECK: Thank you, Mr. Hearing
Examiner. I'm going to disagree with Mr. Bruce on the procedure, but I'm going to agree with him on the fact that it is late in the day and we're -- Earthstone doesn't have any rebuttal.

THE HEARING EXAMINER: Okay.
Wonderful. All right. So the evidentiary record is closed, except for these amended exhibits from Mr. Bruce.

Now let's talk about the post-hearing procedure. This is the first contested hearing that I've conducted for the OCD. In my previous position parties had an opportunity -- they had a certain number of days to produce post-hearing submissions.

Post-hearing submissions included closing argument. It also included proposed findings of fact and proposed conclusions of law. So, Mr. Bruce, you didn't mention part of what $I$ just mentioned. Is that not common in these hearings?

MR. BRUCE: Oh, no. Yeah. It is common, Mr. Examiner. I guess I kind of join them together at times, because I put them --

THE HEARING EXAMINER: Okay. I understand. So then the parties are going to submit closing arguments and proposed findings of fact and
proposed conclusions of law. Is that correct?
MR. BRUCE: That's what I would like to do --

MR. BECK: Yeah. That's my understanding.

THE HEARING EXAMINER: Okay. I saw once before that Ms. Orth [ph], who was a contract hearing officer, she gave the parties two weeks for that. Does that seem fair?

MR. BRUCE: It is, Mr. Examiner. I suppose the other thing is often times Ms. Orth [ph] and Mr. Brinkard [ph], the prior hearing examiner, would give, like, two weeks from the time that the hearing transcript was -- and Marlene would --

THE HEARING EXAMINER: That makes sense.

MR. BRUCE: -- Marlene would inform Mr. Beck and $I$ and the other people of when -- filed.

THE HEARING EXAMINER: That's fair. Yeah. That's fair. Sounds good. So I don't remember the court reporter's name.

Would you please tell me what your name is?

THE REPORTER: Dana.
THE HEARING EXAMINER: Dana, when do
you anticipate a verbatim transcript?
THE REPORTER: It typically takes seven days, but if you guys want to expedite, I can do it, as well.

THE HEARING EXAMINER: All right. Who pays -- at the OCD, who pays for verbatim transcripts? Does anyone know?

MR. BRUCE: Mr. Examiner, Jim Bruce. Generally it's the division. Somebody wants a verbatim one, they'd ask and offer to pay the court reporter for that. A week or ten days, that is fine with me or two weeks. Whatever the court reporter can do from my --

THE HEARING EXAMINER: Okay.
Mr. Bruce, I didn't understand your answer to the question. So let me say it again or let me repeat what I think I heard. You said the division normally pays for the court reporter's verbatim transcript. Is that correct?

MR. BRUCE: Yes. They have a -- the division has a contract with the court reporter or the court reporting services.

THE HEARING EXAMINER: But then is that proprietary to the division and it's not shared with the parties? Is that what you're saying?

MR. BRUCE: No, I'm not, because of course that is filed online with the division, and it's available to everyone. But in the past, Mr. Examiner, a party who wanted an expedited transcript --

THE HEARING EXAMINER: Oh, I get it. I understand now. Okay. All right.

Well, Mr. Beck, do you have a need for an expedited transcript?

MR. BECK: No. Seven days is fine.
Thank you.
THE HEARING EXAMINER: Okay.
Dana, if it's going to be longer than seven days, would you send an email to Marlene, so she knows how much longer than seven days it'll be?

THE REPORTER: Yes.
THE HEARING EXAMINER: Okay.
Wonderful. Okay.
Then once the transcript is posted online, we'll give the parties two weeks from that date to submit their post-hearing submissions. The way it's been done in the past is if you don't make an argument in the closing argument, then it's waived.

And, Mr. Bruce, I don't know, how long does it normally take the hearing officer and the
division to produce an order from the post-hearing submissions?

MR. BRUCE: Boy, that's beyond my
knowledge. It's always been at the pleasure of the division. And I think Mr. -- can agree with that. It's whatever time you need to take care of it. Of course operators always like a quick decision, but when there's a lot to consider, I know it takes time to -- well, for instance, in this case there was a motion to dismiss that was argued, and it took the division about -- just the motion to dismiss took over two months to decide, so.

THE HEARING EXAMINER: Okay. I
understand. Okay. Then we will take whatever time we need. Okay. I can't think of anything else. Is there anything else from the parties before we end this?

MR. BECK: -- my experience. You just assume that Mr. Bruce has more?

THE HEARING EXAMINER: I did. My
fault. My apologies.
MR. BECK: That's all right. My
experience -- with yours, so I appreciate you not singling me out.

THE HEARING EXAMINER: Oh, you're just


I, DANA FULTON, the officer before whom the foregoing proceedings were taken, do hereby certify that any witnesses) in the foregoing proceedings, prior to testifying, were duly sworn; that the proceedings were recorded by me and thereafter reduced to typewriting by a qualified transcriptionist; that said digital audio recording of said proceedings are a true and accurate record to the best of my knowledge, skills, and ability; that $I$ am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that $I$ am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

Dana 7 alton

DANA FULTON
Notary Public in and for the
State of Missouri

```
                CERTIFICATE OF TRANSCRIBER
            I, CHRISTINE BROWN, do hereby certify that
    this transcript was prepared from the digital audio
    recording of the foregoing proceeding, that said
    transcript is a true and accurate record of the
    proceedings to the best of my knowledge, skills, and
    ability; that I am neither counsel for, related to,
    nor employed by any of the parties to the action in
    which this was taken; and, further, that I am not a
    relative or employee of any counsel or attorney
    employed by the parties hereto, nor financially or
    otherwise interested in the outcome of this action.
```



```
CHRISTINE BROWN
```

| \& | 178:17 191:11 | 10,400 167:14 | 11a 16:6 86:13 |
| :---: | :---: | :---: | :---: |
| \& 3:15,22 4:18 | 242:2 294:1 | 10.2 253:3 | 263:21 267:7 |
| 5:17 6:4,14 | 297:13,18,18 | 100 99:14 | 267:15 276:20 |
| 8:11 9:4 18:4 | 297:21 | 183:11 | 277:4 285:15 |
| 31:22 36:25 | 1,000 277:25 | 1000 4:19 8:12 | 285:19,19 |
| 61:5,14 65:1,20 | 290:7,20 291:6 | 1048 7:21 | 286:15 287:22 |
| 73:2,13 | 291:17 | 1056 3:9 5:5 | 289:7 294:25 |
| 0 | 1,300 228:4 | 107 15:13 | 298:2,16,24,25 |
| 0 285:6 | 1,320 221:9 | 10731 77:7 | 11b 263:22 |
| 0.010417 130:2 | 291:7 | 11 15:14 16:4 | 276:20 278:13 |
| 0.03 133:9 | 1,445 223:13 | 84:12,14,17 | 278:14 281:6 |
| 198:14 | 1,480 289:10,14 | 86:12,13 87:1 | 285:21 287:1 |
| 0.03125. 130:3 | 290:3 | 138:3 169:22 | 288:2 294:4 |
| 0.04 133:3 | 1,900 247:1 | 170:24 206:20 | 297:7,21 |
| 0268 3:5 8:6 | 279:6 | 267:7,15 268:1 | 11h 253:3 |
| 1 | 1/2 103:23 | 268:1,3 269:13 | 11th 54:1 |
| 1 4:13 5:12 6:9 | 274:11 297:18 | 269:15,17,23 | 12 15:21 76:8 |
| 6:21 7:15 8:18 | 10 15:13 16:5 | 270:5,10,11,13 | 84:10,14,16 |
| 12:10,22 16:4 | 84:8,14,16 | 271:10,14,14 | 86:13 87:1 |
| 18:14 46:14 | 86:11 87:1 | 272:1 282:24 | 138:2 143:21 |
| 66:16 67:14 | 92:5 100:12 | 284:6 298:14 | 143:24 146:22 |
| 69:10,13 83:23 | 106:25 107:3,9 | 298:24,24 | 147:22 148:15 |
| 84:1 86:7,20,22 | 108:16,16 | 110 4:13 5:12 | 148:19,20,23 |
| 90:24 91:19 | 109:23 110:1,7 | 6:9,21 7:15 | 149:8,9 150:19 |
| 92:23 93:6 | 113:20 115:15 | 8:18 | 152:2,3,10 |
| 106:10 107:1 | 116:10 146:6 | 113 221:8 | 154:11,19 |
| 114:18 120:6 | 169:22 189:1,2 | 113h 229:9 | 155:1,15 156:1 |
| 123:14 143:1 | 210:19 214:10 | 114 221:9 | 156:5,15,16 |
| 143:16,19 | 245:8 269:13 | 114h 174:21 | 166:5,8,15 |
| 145:5 146:23 | 270:8,22 271:5 | 229:6 | 169:12,19,21 |
| 148:11,16,17 | 271:16 298:15 | 117 10:13 | 170:1,24 |
| 159:4 170:23 | 10,000 165:5 | 11:04 134:10 | 171:14 187:3 |
| 175:6 176:4 | 253:12 | 11:10 134:10 | 206:21,22 |
| 177:20 178:15 |  |  | 230:11,23 |

Page 1
[12-2,500]

| 275:9,15,19 | 155,700 257:2,4 | 147:9 148:11 | 191:1,6,8 |
| :---: | :---: | :---: | :---: |
| 277:14 278:2,8 | 257:19 | 148:16,17 | 19.15.16.15... |
| 278:20 280:3 | 156/170 15:22 | 160:2,3 174:16 | 102:10 |
| 284:14 285:6,7 | 157 10:16 | 174:24 176:20 | 1975 263:3 |
| 285:7,9,17 | 15th 89:17 90:7 | 178:5,20 | 19h 57:17 |
| 286:17 287:4 | 150:7 | 182:25 184:21 | 59:17,17 |
| 12,000 201:5 | 16 41:19 57:15 | 186:18 188:3 | 19th 44:16 |
| 12/1/20 15:13 | 57:23 | 190:19 191:11 | 61:23 62:7 |
| 125 7:9 | 164 10:17 | 192:3 195:5,11 | 63:2,10 84:7 |
| 12h 253:4 | 16481 26:14 | 195:18 218:13 | 85:16 150:3,9 |
| 13 137:16,20 | 16482 26:15 | 219:11 223:1 | 1h 227:11 |
| 210:19 214:11 | 168 10:18 | 224:20 226:23 | 228:5 |
| 249:8 279:21 | 16th 19:18,25 | 228:12 229:8 | 1st 237:14 |
| 294:1 | 40:17 41:2,8,23 | 229:19 238:19 | 2 |
| 132 10:12 | 17 74:16 128:3 | 239:14,16,18 | 2 12:12,23 |
| 1320 278:6 | 135:22 136:3 | 241:24 242:2 | 14:18 16:6 |
| $13510: 15$ | 274:15 | 242:11 274:4 | 55:19 67:15 |
| 136 251:17,18 | 173 10:20 | 274:13,13 | 69:13 86:20,22 |
| 261:6 | 176 186:9 | 275:10,17 | 88:6,8 90:12 |
| 13b 275:20 | 1780 9:5 | 276:1 | 97:22 101:8,25 |
| 13h 253:4 | 18 14:11 80:13 | 18-7 174:21,22 | 106:9 123:23 |
| 14 42:13,14 | 80:14 100:19 | 185:6 225:12 | 143:1, 1,3,7,11 |
| 74:11 89:16 | 100:24,25 | 182/182 15:18 | 143:18 159:4,8 |
| 100:10 193:3 | 101:7,11,16,18 | 187214h 158:4 | 175:6 182:14 |
| 146 10:16 | 101:22 102:2 | 158:12 | 191:14 192:19 |
| 14th 83:7 87:12 | 106:12 108:8 | 189 10:21 | 194:21 219:19 |
| 88:13 151:22 | 108:11 109:19 | 18a 144:7 145:5 | 227:23 229:22 |
| 154:20 | 114:8 117:1,13 | 146:22 147:24 | 229:23 274:15 |
| 15 42:15 | 117:15 126:10 | 148:9,11,17 | 297:18,21 |
| 15.2 253:4 | 126:23 131:4 | 18th 150:2,8 | 2,000 141:16 |
| 150 88:6 209:21 | 136:12 137:5 | 19 60:16 64:2 | 279:2,3,12 |
| 1512 7:5 | 137:23 138:11 | 101:7,17 143:8 | 284:11 285:2 |
| 152,440 257:3,7 | 143:8,11 | 143:10,11 | 2,500 247:1,3,4 |
| 153 10:15 | 144:23 145:2,3 | 159:13,15 | 278:1,7 279:3 |
|  | 145:5 146:23 | 160:3 190:20 | 279:13 285:2 |

Page 2

| 2,600 280:1 | 21.4 253:3 | 229:6 241:17 | 23248 1:22 |
| :---: | :---: | :---: | :---: |
| 2,700 141:17 | 210 10:6 | 21568 1:15 | 23249 1:22 |
| 2-2 12:24 85:2 | 21277 26:18 | 21572 1:15 | 23250 1:22 |
| 85:23 86:15,19 | 27:19 | 21834 77:4 | 23251 1:22 |
| 86:20,22 105:7 | 21278 26:18 | 21st 17:2 83:18 | 23252 1:23 |
| 122:14 123:4,6 | 27:19 | 172:2 | 23253 1:23 |
| 126:3,7,14 | 21279 26:22 | 22 57:14,22 | 23318 1:12 |
| 182:18 183:1,3 | 27:19 | 220 221:14 | 23319 1:12 |
| 196:7 198:5 | 21280 26:23 | 222/243 14:9,12 | 23320 1:12 |
| 2-4 258:2 | 27:19 | 22301 57:17,25 | 23321 1:12 |
| 2.2. 122:16 | 213 7:9 | 223h 221:14 | 23365 1:24 |
| 20 57:25 59:19 | 2135 142:15 | 229:9 241:16 | 12:21 13:3 |
| 59:23 69:3 | 21361 1:9 17:10 | 224/243 14:14 | 72:7 79:4 |
| 178:20 242:12 | 27:3 | 226/243 14:16 | 83:20 187:13 |
| 2018 26:4,16 | 21362 1:9 17:10 | 22653 1:15 | 23366 1:24 |
| 2020 80:1,2 | 21363 1:9 17:10 | 22700 1:21 | 12:21 13:3 |
| 99:20,21 107:2 | 21364 1:10 | 228/243 14:18 | 72:7 83:20 |
| 111:3 114:18 | 17:11 27:4 | 22845 1:11 | 187:16 |
| 2021 99:22 | 21393 1:11 | 31:17,24 32:5 | $234751: 23$ |
| 295:10 | 18:23 26:6 | 32:20 33:19 | 12:21 13:3 |
| 2022 36:1,2 | 27:7 | 22917 1:21 | 72:7 83:19 |
| 173:22 250:5 | 21394 1:11 | 22947 1:11 | 149:19 229:5 |
| 250:17 251:3 | 18:23 26:6 | 31:17,19 32:6 | 23477 1:23 |
| 251:13 258:3 | 27:7 | 33:18 34:1 | 12:21 13:3 |
| 2023 2:3 17:2 | 214 3:16,23 | 23 51:5 277:6 | 83:20 149:19 |
| 178:20 186:19 | 247:25 | 277:24 278:8 | 229:8 |
| 258:10 | 21454 28:7 | 286:18 290:19 | 235 10:24 |
| 2024 199:16,23 | 21489 1:10 | 291:18 | 23664 1:17 42:7 |
| 203-5730 9:8 | 18:22 | 23020 1:13 | 56:10 57:10 |
| 204 10:20 | 21490 1:10 | 23021 1:13 | 59:11,15,16,17 |
| 205 10:23 | 18:23 | 23022 1:13 | 23665 1:17 12:3 |
| 20c 275:20 | 21491 1:10 | 23023 1:13 | 42:7 56:10 |
| 20th 84:22 | 18:23 | 23024 1:14 | 57:18 59:11,19 |
| 21 2:3 294:1 | $\begin{aligned} & \text { 214h } 174: 22 \\ & 221: 12 \quad 223: 14 \end{aligned}$ | 23025 1:14 | 23666 1:18 |

Page 3

| 23667 1:18 | 23763 1:16 51:7 | 28 103:23 | 34 294:2 |
| :---: | :---: | :---: | :---: |
| 23668 1:18 | 23765 1:16 | 178:19 | 36 57:15,23 |
| 23669 1:18 | 52:23 54:5 | 281 9:8 11:8 | 145:10 230:17 |
| 23670 1:21 61:1 | 23766 1:17 | 28158 307:17 | 232:9 |
| 23671 1:21 61:2 | 23767 1:17 | 29 69:3 | 388,000 254:14 |
| 23677 1:14 | 24 165:8 277:7 | $29411: 7$ | 388,300 256:5 |
| 36:15 | 277:23 | 296 11:8 | 39 42:19 43:18 |
| 23678 1:14 | 24177 23:14 | 298 16:6 | 3h 221:18 |
| 36:16 | 245-2606 4:8 | 2:53 248:12 | 222:20 223:5 |
| 23688 1:24 | 246 10:23 | 2c 12:13 67:18 | 223:11,14,17 |
| 23689 1:24 12:9 | 249 11:4 | 67:20,25 69:13 | 234:5 235:19 |
| 64:16 66:1,6 | 25 219:2 220:10 | 2d 239:12,15 | 244:14 247:24 |
| 67:4 69:21 | 237:11 277:7 | 3 | 274:11,14 |
| 71:20,24 | 277:23 278:2 | 3 12:14,25 | 282:5 |
| 23690 1:25 | 286:18,20 | $44: 19 \text { 66:16 }$ | 4 |
| 64:17 71:21,24 | 290:21 291:8 | 68:11 69:2,14 | 4 13:4 44:19 |
| $236911: 25$ $71: 25$ | 291:25 | 86:20,23 90:12 | 66:17 69:3 |
| 71:25 23698 | $\begin{array}{lll}\mathbf{2 5 0} & 228: 6 \\ \mathbf{2 5 2 4 5} & 6 \cdot 15\end{array}$ | 104:22,24 | 85:16 86:20,23 |
| $236981: 19$ | $\begin{array}{llll}25245 & 6: 15 \\ 259 & 11 \cdot 5\end{array}$ | 117:20 119:2 | 89:1,11 90:12 |
| 23699 1:19 | $\begin{array}{lll}259 & 11: 5 \\ \text { 25th } & 21.25\end{array}$ | 122:6,11 134:1 | 92:24 93:6 |
| $237001: 19$ | 25th 21:25 | 165:13 172:21 | 94:1 103:13 |
| 23701 1:19 | 26 277:6,24 | 175:6 177:8 | 104:12,12,25 |
| 23702 1:20 | 2623 278:5 | 180:16 182:20 | 105:19 186:15 |
| 23703 1:20 | 2623b2ml | 205:14 220:5,6 | 249:5 |
| 23704 1:20 | 297:4 | 248:12 269:1 | 432 7:12 |
| $237051: 20$ | 2623b20j | 3,000 256:24 | 45 285:6 |
| 23738 1:15 | 286:17 | 3,260 256:17 | 488-6108 7:12 |
| 42:15,17,19 | 26522 306:20 | $30 \quad 258: 10$ | 4:02 178:20 |
| 43:18 44:15 | 269/272 15:14 | 286:20 | 4 la 54:2 |
| 23739 12:16 | $\begin{array}{ll}27 & 57: 14,22 \\ \mathbf{2 7}-22 & 57.17,25\end{array}$ | $300 \quad 228: 5$ | 4h 221:19 |
| 42:15 | 27-22 57:17,25 | 31 66:15 286:17 | 244:14 |
| $\begin{array}{ll}237621: 16 \\ 48 \cdot 20 & 49 \cdot 3\end{array}$ | 271 16:5 | 286:19 | 4th 4:19 8:12 |
| 48:20 49:3,23 51:6 | 272 11:7 | 320 57:12,20 |  |
| 51:6 | 27th 184:16 | 325 5:18 6:5 |  |

Page 4

| 5 | $\begin{gathered} \hline 168: 11,13,19 \\ 168: 21169: 7 \\ \text { 5th } 31: 6,9,10 \\ 40: 5,9,1241: 3 \\ 41: 6,18,20 \\ \hline \end{gathered}$ | 7 | 77 10:7 72:7 |
| :---: | :---: | :---: | :---: |
| $\begin{array}{ll} 5 \quad 12: 1613: 5 \\ 44: 19,19,19,20 \end{array}$ |  | $\begin{array}{ll} 7 & 12: 18 ~ 13: 7 \\ 14: 11 \quad 16: 5 \\ 49: 6 ~ 51: 7,8,10 \\ & 51: 10,1452: 7,9 \end{array}$ | 79:6 |
|  |  |  | 77380 9:6 |
| 49:6 51:7,10,14 |  |  | 78 209:24 |
| 51:15 52:7,8,9 |  |  | 250:11,18,21 |
| 54:3 68:19 | 6 | 52:24 54:4 | 780-8000 7:24 |
| 69:14 70:25 | 6 12:17 13:6 | 66:17 68:24 | $\begin{array}{ll} 79 & 10: 8 \\ \text { 7th } & 34: 11,22 \end{array}$ |
| 74:7 86:20,23 | 48:20 51:8,10 | 69:11,15 78:6 | $35 \cdot 152242 \cdot 18$ |
| 90:12 91:19 | 51:15 52:9,23 | 86:20,24 98:12 | 35:15,22 42:18 |
| 134:21 147:18 | 68:20 69:14 | 98:17 114:10 |  |
| 152:12 161:20 | 71:7 86:20,24 | 136:12 144:23 | 147:6 |
| 188:24 224:19 | 90:13,24 92:5 | 145:2,3 174:25 | 8 |
| 225:11,20 | 139:3 161:20 | 178:6 184:21 | 8 13:8 86:20,24 |
| 263:21 276:21 | 189:1 193:13 | 188:3 192:6,8 | 190:12 191:19 |
| 50 108:8 | 193:25 194:22 | 192:19,24 | 270:16 271:4 |
| 50,000 253:18 | 242:19 276:21 | 193:7,9,25 | 80401 4:6 |
| 500 4:19 8:12 | 6,000 139:5 | 194:22 196:23 | 84/86 12:22,23 |
| 279:1 290:8 | 60 145:12 | 201:8 218:13 | 12:24,25 13:4,5 |
| 503h 228:5 | 220:23 221:1 | 223:1 224:20 | 13:6,7,8,9 |
| 505 7:24 | 231:18 232:8 | 226:23 229:9 | 85 58:7 |
| 51 251:4 | 232:12 | 239:10,14,16 | 87102 4:20 8:13 |
| 52 171:21 | 63 48:20 49:3 | 239:18 242:19 | 87125-5245 |
| 523 4:5 | 49:23 | 270:8,16 271:4 | 6:16 |
| 550 221:10 | 66 54:6 79:4 | 271:16 286:19 | 87501 2:7 3:17 |
| 5528939 2:9 | 231:16 | 298:15 | 3:24 4:14 5:13 |
| 58/59 12:5,6 | 660 239:25 | 72 104:6 106:23 | 5:19 6:6,10,22 |
| 5:27 305:14 | 240:2,5 | 127:2,10 | 7:10,16,22 8:19 |
| 5a 135:13 157:8 | 67 54:6 | 133:15 196:15 | 87504 3:6,10 |
| 158:21 161:20 | 689 67:9 | 720 4:8 | 5:6 8:7 |
| 5b 136:17 | 69 12:11,12,13 | 736,000 254:17 | 87505 7:6 |
| 145:7 147:15 | 12:15,16,17,18 | 74 251:12 | 882,000 255:23 |
| 147:20,22 | 691 69:6 | 75 77:22 79:6 | 89/93 14:20,21 |
| 148:11,17 | 6th 31:8 | 220:19 | 14:22,24,25 |
| 149:9,15 152:4 |  | 750 9:5 149:2 | 8:15 2:4 |
| 157:8,24 158:2 |  | 152:21 153:12 |  |

Page 5
[8h - actually]

| 8h 123:8 | a2 13:14 123:20 | acceptable | acquisition |
| :---: | :---: | :---: | :---: |
| 136:23 182:18 | 123:24 125:24 | 19:18 82:11 | 22:20 173:22 |
| 182:19 183:4 | 131:25 133:6 | 114:3 | 250:4,8,9 251:1 |
| 9 | 174:19 175:3 | accepted 26:25 | 251:5 |
| 9 13:9 18:15 | 175:10 | 58:18 172:23 | acre 57:12,20 |
| 83:23 84:1 | a3 12:4 13:15 | 173:4 205:15 | 201:6 |
| 86:8,20,25 | 58:5,21 59:3 | access 294:4 | acreage 19:12 |
| 170:23 254:19 | 258:14 | accompanying | 113:20 114:10 |
| 270:17,23 | a4 13:16 | 275:5 | 115:2,5 117:11 |
| 271:5 | a5 13:17 | accomplished | 190:16,19,19 |
| 9/18 66:14 | a6 13:18 90:15 | 43:11 | 192:2,17 194:1 |
| 90/91 13:12,13 | 91:2 184:9 | accordance | 195:18 241:2,3 |
| 13:14,15,16,17 | abadie 3:15,22 | 45:15 | 242:12 251:9 |
| 13:18 | 65:20 | account 23:6 | 251:10,11,13 |
| 91 64:17 71:22 | abandon 259:2 | 145:9 237:20 | acres 113:15 |
| 91/92 13:19,20 | ability 111:15 | 276:5 | action 306:12 |
| 13:22,24 14:4,5 | 122:2 192:1 | accounting | 306:16 307:8 |
| 93/94 15:4,5,6,7 | 195:24 229:18 | 183:22 | 307:12 |
| 15:9 | 264:23 306:10 | accumulative | activating |
| 940 223:16 | 307:7 | 237:12 | 95:12 |
| 239:21 | able 24:18 29:6 | accurate 53:13 | active 27:13 |
| $98 \quad 10: 12$ | 40:9 41:11 | 117:12 126:2 | activity 142:19 |
| 9850 165:9 | 111:24 138:24 | 126:10,23,24 | actual 28:12 |
| 9:45 $83: 15$ | 139:10 161:10 | 132:25 155:24 | 211:24 250:11 |
| 9:50 83:16 | 184:20 209:14 | 176:1 182:21 | 253:19 |
| 9h 123:16 | 238:5 242:25 | 183:6,20 | actually 18:11 |
| 136:23 183:4 | 252:20 256:22 | 189:22 196:20 | 21:21 22:13 |
| $223: 3,17 \text { 239:2 }$ | 257:14 | 196:21 223:23 | 53:10 56:14 |
| $276: 10$ | above 232:11 | 223:24 289:13 | 61:22 69:21 |
| a | 9:13 | 297:2 306:9 | 85:1 87:8 90:6 |
| a.m. 2:4 76:6 | absent 198:22 absolutely | 307:5 <br> achieved 278:7 | $\begin{aligned} & 115: 3 \text { 119:6 } \\ & \text { 138:22 143:6 } \end{aligned}$ |
| a1 13:13 90:12 | 235:2 299:1 | acquire 250:9 | 159:25 176:19 |
| 90:14 91:1 | accept 68:7 | acquired | 212:6 250:16 |
| 123:23 |  | 250:18 251:4 | 251:19 252:24 |

Page 6
[actually - affirmation]

| 255:15 274:3 | 215:8 219:7,15 | 252:1 254:2 | 253:7,15 254:9 |
| :---: | :---: | :---: | :---: |
| adam 5:10 6:7 | 219:22 | 256:8 258:1 | 254:18 258:8 |
| 53:19 58:2 | administrative | 266:5 271:19 | 258:10,14 |
| 64:25 | 217:17 | admitting | 259:25 |
| add 88:18 | admissible | 156:1 169:21 | affect 207:3 |
| 152:17 169:19 | 208:24 209:16 | 169:22 179:21 | 276:2 |
| added 88:21 | admission | adobe 209:22 | affected 50:11 |
| 255:23 | 53:21 69:10 | adriana 10:3 | 70:21 226:19 |
| adding 212:8 | 85:10 91:9 | 10:11 94:12 | 274:4,11 |
| addition 186:6 | 108:16 | 96:4 97:21 | affecting |
| 187:2 212:12 | admit 85:23 | 182:15 202:1 | 106:19 |
| 234:18 | 115:15 170:21 | adult 207:2,3,6 | affects 214:1 |
| additional | 181:8 196:8 | 213:24 227:5 | 275:12,24 |
| 61:24 62:3,4 | 217:10,16 | advance 193:3 | affidavit 12:12 |
| 84:7 123:2 | 263:4 264:8 | 200:4 | 12:15,17 15:7 |
| 140:25 169:18 | 268:3 270:10 | advantage | 37:18 39:16 |
| 180:2 184:17 | 270:11 271:13 | 143:12 | 40:10 44:25 |
| 187:21 188:5 | admitted 59:2 | advise 79:6 | 57:4 61:17 |
| 190:4 196:7 | 86:21 87:2 | 193:4 | 64:3,6 65:6,14 |
| 211:22 251:17 | 88:1,2 90:24 | advisement | 65:22 67:15 |
| 251:21,22 | 92:1 93:2 94:2 | 44:12 48:1,7,17 | 68:12,16,20,22 |
| 264:2 266:24 | 97:23 98:9 | 49:14 52:13,21 | 71:6 84:11,18 |
| address 262:25 | 135:7 153:19 | 53:22 55:25 | 93:21 134:20 |
| 262:25 263:6 | 156:15 166:17 | 58:20 60:23 | 165:7 190:11 |
| 263:18 264:18 | 170:7,23 | 69:12 72:2,5 | 262:21 264:7 |
| addressed | 174:18 175:2 | 179:5 | 268:24 269:1 |
| 27:15 44:10 | 178:23 181:14 | afe 14:23,25 | 272:7 298:9 |
| 112:14 | 181:22,24,24 | 168:16,24 | 299:15 |
| addressing | 182:24 186:15 | 254:3 255:13 | affidavits 15:9 |
| 28:8 | 188:25 194:19 | 256:12 258:2,3 | 58:1 93:22 |
| adds 149:9 | 207:23 208:13 | 260:5,7 | affirm 97:5 |
| adequately | 209:17 218:8 | afes 68:10 | 134:20 |
| 144:21 | 218:23 220:11 | 77:11 164:25 | affirmation |
| adjacent | 230:11 243:20 | 165:8,21 167:5 | 15:3 93:18 |
| 161:15 213:23 | 249:4,25 250:6 | 167:6,12 253:7 |  |

[affirmed - answer]

| affirmed 97:14 | agreed 34:10 | al 65:21 | amendments |
| :---: | :---: | :---: | :---: |
| 276:21 | 39:16 80:2 | albuquerque | 88:17 |
| affirming 84:8 | 101:12 107:23 | 4:20 6:16 8:13 | america 53:9 |
| 269:11,14 | 108:3 111:1 | allegations | 54:25 55:12,14 |
| afford 74:19 | 115:1 119:22 | 155:9 | amount 129:24 |
| afraid 241:1,3 | 127:16,19 | allen's 252:13 | 224:2 256:5 |
| afternoon 83:4 | 159:25 288:15 | allow 33:15 | 276:12 296:19 |
| 85:16 87:13 | agreeing | 38:2 40:6 43:7 | amounts |
| 160:12 200:18 | 113:14 | 47:9 176:14 | 232:23 |
| 244:3,4 261:24 | agreement | 209:9 240:4 | analog 226:10 |
| 292:21 | 38:15,24 39:1,3 | 259:2 267:21 | 245:9 |
| ago 54:20 55:20 | 39:5,12,13 68:8 | 284:3 | analogs 236:9 |
| 101:23 111:12 | 80:22 100:7 | allowing | 242:20 282:15 |
| 111:18,22 | 103:24 106:16 | 192:12 | 282:17 283:2 |
| 112:22,22 | 107:13,14,18 | allows 81:19 | 283:16 |
| 113:1,5,18 | 109:18 112:20 | altitude 215:10 | analysis 211:18 |
| 115:8 127:1 | 114:7 116:24 | amanda 10:19 | 212:16 247:5 |
| 147:6 151:13 | 118:24 119:18 | 95:5 96:19 | 247:10 254:11 |
| 151:17 152:8 | 120:2 174:11 | 120:11,12,23 | 273:2 274:20 |
| 178:16 194:3 | 177:23 193:1 | 172:14,17 | 274:24 275:3 |
| 273:24 283:10 | 195:15,19 | amazing 114:6 | 282:7,11 |
| agree 20:12 | 197:10,18,24 | amend 43:20 | 288:24,25 |
| 24:22 34:1 | agreements | 43:25 115:2 | analytics |
| 79:18 115:23 | 108:1 | amended 14:19 | 211:11 |
| 119:13 125:23 | ahead 61:19 | 44:1,4,17 82:22 | analyze 206:23 |
| 126:4 140:22 | 66:21 100:9 | 82:25 87:10,15 | analyzed 233:5 |
| 160:1 183:5 | 104:2,3 137:24 | 88:20 89:16,24 | analyzing |
| 193:5 234:3 | 146:17 176:23 | 90:6 92:13,13 | 286:13 |
| 274:17,18,22 | 191:17,18 | 92:22 249:4 | andrews 5:17 |
| 276:11 285:15 | 193:25 197:10 | 271:10 298:24 | 6:4 18:5 61:14 |
| 286:25 300:3 | 254:6 256:10 | 298:25 300:8 | announce |
| 304:5 | 259:1,9,10,14 | amending | 18:20 |
| agreeable | 271:17 277:1,2 | 84:14 89:23 | answer 110:22 |
| 19:24 33:5 | 277:2 285:24 | amendment | 110:24 114:22 |
|  | 305:5 | 88:19 | 127:8,14 128:8 |

Page 8
[answer - appropriate]

| 133:2 139:24 | apache's 26:19 | apples 254:8,9 | 108:25 110:18 |
| :---: | :---: | :---: | :---: |
| 139:25 150:21 | apart 81:19 | 255:19,20 | 117:11 120:9 |
| 151:3,4 155:4 | 239:25 277:21 | applicable 86:9 | 120:15 121:22 |
| 156:3 163:24 | 277:25 278:6 | applicant 6:12 | 122:10 124:16 |
| 194:8 195:7 | apd 177:5 | 32:4 36:19 | 127:25 128:8 |
| 215:25 241:8 | api 185:2 | 42:22 56:16,16 | 149:19 150:7 |
| 260:13 261:10 | apodaca 9:14 | 72:14 | 151:15 154:3,4 |
| 273:17 291:20 | apologies | applicants 24:2 | 155:3 159:8 |
| 302:15 | 304:21 | 264:23 | 173:20 174:1,6 |
| answered | apologize 89:6 | application | 176:6,18 184:7 |
| 193:23 241:21 | 90:1 158:17,18 | 12:10 25:1 | 185:17,18 |
| answering | 257:6 | 26:21 33:24 | 186:23 187:9 |
| 239:5 283:18 | apparently | 43:18 67:14 | 188:10 204:10 |
| answers 238:15 | 112:12 | 81:14 99:20 | 222:1 226:25 |
| 248:1 267:24 | appeal 25:1 | 106:7 115:2,3 | 229:14 234:9 |
| 271:23 283:15 | 26:8 | 117:16,21 | 234:25 235:4 |
| anticipate | appealed 26:1 | 121:4,5,21 | 253:8 256:3,4 |
| 214:17,20 | 26:15 | 122:3,7 123:21 | 265:2 |
| 302:1 | appear 178:1 | 124:5 126:7 | applied 219:13 |
| anticipated | 236:21 | 127:21 131:25 | apply 193:18 |
| 86:1 213:22 | appearance | 132:3 151:14 | 213:2 |
| anticipating | 17:18 18:24 | 155:9 173:13 | applying 81:5,7 |
| 85:13 | 19:3 32:6 34:4 | 173:14 177:8 | appreciate |
| anticipation | 34:14 37:6 | 178:10 188:10 | 112:5 189:6 |
| 218:6 | 61:10 64:22 | 195:4 219:6 | 203:20 243:9 |
| anyway 21:1 | 72:21 73:18 | 223:7,8 230:4 | 304:23 |
| 71:2 76:11 | appeared 76:3 | 235:5 246:24 | appreciated |
| 99:9 305:6 | 76:5 | 246:24 247:13 | 271:23 |
| aol.com 3:11 | appearing | applications | apprised 46:2,3 |
| 5:7 | 30:18 31:22 | 18:17 25:4,5 | 176:22 |
| apache 4:16 | 36:25 53:19 | 26:3 29:8 | approach |
| 17:20 18:17 | 56:15 57:1 | 33:17,19 37:14 | 81:17 |
| 19:23 25:4 | 65:173:13 | 60:4,12 72:5 | appropriate |
| 26:19 | appears 45:13 | $78: 2079: 22$ | 198:10 |

Page 9

| appropriately | $114: 24137: 4$ | $114: 16145: 21$ | $153: 17158: 3,7$ |
| :---: | :---: | :---: | :---: |
| $181: 10$ | $138: 5139: 2$ | $145: 22146: 8,9$ | $163: 10178: 23$ |
| approval 63:16 | $142: 10,12,13$ | $154: 25156: 6,7$ | asmus $10: 5,22$ |
| $78: 7,999: 18,21$ | $142: 15,19$ | $168: 4180: 6$ | $95: 696: 24$ |
| $103: 17104: 6$ | $143: 2161: 1$ | $213: 12231: 13$ | $155: 19,24$ |
| $104: 20106: 21$ | $192: 8201: 25$ | $299: 14300: 16$ | $156: 2204: 17$ |
| $121: 4127: 2$ | $216: 5,13,16,23$ | $303: 23,23$ | $204: 21205: 9$ |
| $133: 16,25$ | $218: 15226: 4$ | arguments $87: 3$ | $205: 12207: 20$ |
| $141: 5193: 19$ | $231: 24233: 2$ | $289: 6300: 25$ | $208: 2,16$ |
| $196: 15200: 1,3$ | $234: 13235: 21$ | arises $106: 12$ | $209: 15210: 7$ |
| $200: 8204: 8$ | $235: 22236: 5,8$ | arose $26: 23$ | $218: 3221: 3$ |
| approve 121:6 | $236: 10237: 6$ | arrived $53: 10$ | $242: 23244: 3$ |
| $121: 20178: 10$ | $242: 13,16$ | arrow $136: 25$ | $246: 14248: 2$ |
| approved | $247: 9,16$ | $279: 22294: 1$ | $272: 7282: 10$ |
| $13: 18119: 24$ | $254: 23260: 12$ | artificial $257: 9$ | asserted $177: 13$ |
| $184: 15187: 25$ | $260: 20,22$ | ascent $17: 25$ | assertion |
| $196: 16$ | $272: 13,23$ | $18: 1826: 13,23$ | $278: 23,25$ |
| approving | $273: 5,23274: 2$ | $27: 628: 16,21$ | $284: 25286: 4$ |
| $113: 17119: 19$ | $274: 25277: 19$ | ascent's $22: 21$ | assigned $26: 18$ |
| $139: 13$ | $278: 15279: 6$ | $26: 3 \quad 26: 22$ |  |
| approximate | $281: 20,22$ | asked $25: 8$ | associated |
| $133: 18149: 2$ | $282: 1293: 14$ | $46: 12101: 11$ | $58: 14277: 13$ |
| $167: 13$ | $295: 21$ | $113: 19115: 5$ | assume $109: 25$ |
| approximately | areas $80: 7$ | $121: 3127: 9,9$ | $123: 11147: 14$ |
| $106: 23127: 2$ | $138: 10,13$ | $128: 6133: 23$ | $199: 9251: 16$ |
| $145: 10,12$ | $174: 3216: 10$ | $139: 25150: 24$ | $265: 21291: 16$ |
| $165: 4167: 15$ | $266: 14$ | $165: 25168: 22$ | $304: 19$ |
| $221: 10,13$ | argue $112: 18$ | $168: 22194: 8$ | assuming |
| $230: 17237: 11$ | $231: 3270: 5$ | $239: 6246: 3$ | $202: 14267: 8$ |
| $245: 7$ | argued $304: 10$ | $247: 8265: 15$ | assumptions |
| april $109: 13$ | arguing $114: 12$ | $289: 4298: 9$ | $273: 13276: 4$ |
| $110: 13178: 19$ | $114: 15$ | asking $29: 5$ | $281: 19,21$ |
| area $46: 6100: 5$ | argument | $81: 22121: 24$ | asterisk $105: 11$ |
| $101: 21102: 3$ | $75: 10,1379: 10$ | $121: 24130: 8$ | attached $89: 13$ |
| $105: 22113: 18$ | $107: 9112: 7$ | $132: 10,11$ | $165: 21178: 17$ |
|  |  |  |  |
|  |  |  |  |

Page 10
[attached - b8]

| $\begin{array}{\|r} \text { 205:18 } \\ \text { attaches } 249: 6 \end{array}$ | $\begin{gathered} \text { 268:7 303:3 } \\ \text { avant } 4: 16 \end{gathered}$ | $\begin{aligned} & 220: 5,6244: 21 \\ & 293: 2,4,6 \end{aligned}$ | $\begin{gathered} 291: 14 \\ \text { b2sc1h } 227: 8 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| attachment | 36:19 37:13,20 | b1 13:20 91:21 | b3 13:23 |
| 145:6 158:20 | 37:23 38:3,15 | 91:22 92:3 | b4 14:3 220:12 |
| 161:20 | 40:6,9 | 188:24 205:19 | 231:19 232:3 |
| attachments | avant's 37:22 | 205:23 206:1,5 | b5 14:5 91:21 |
| 58:14 90:18 | avenue 7:9 | 206:13 218:9 | 91:22 92:3 |
| attempt 87:3 | average 220:18 | 218:10,11 | 211:21 219:3 |
| attempted | 220:23 221:1 | b10 14:17 91:9 | 221:2,3,4 |
| 101:24 | 232:11 | 205:19,23 | 241:15 244:8 |
| attention | averages | 206:1,6,13 | b6 14:6 91:9 |
| 117:20 193:16 | 231:18 232:8 | 207:16,22 | 189:2 207:21 |
| 277:18 288:10 | avoid 33:7 | 208:4 210:19 | 208:4 209:19 |
| 296:22 298:1 | 155:10 | 211:4,24 212:8 | 211:4,20 212:8 |
| attorney 3:8 | avoids 223:7 | 213:13 214:10 | 213:12 214:9 |
| 5:4 74:25 | awarded 26:14 | 227:22 228:1 | 216:23 222:11 |
| 114:24 116:2 | 184:20,23 | 242:24 243:23 | 222:12,13,15 |
| 164:7 175:15 | 197:14,16 | 267:23 271:20 | 223:12 235:16 |
| 175:16 184:8 | awarding | b2 13:21 | 242:24 243:23 |
| 295:23 306:14 | 177:4 | 218:23,25 | 267:3,23 |
| 307:10 | aware 116:1,23 | b2ed 287:19 | 271:20 273:12 |
| audible 125:10 | 145:17 166:21 | b2ed1h 227:4 | 281:11 283:6 |
| audibly 135:4 | 176:17 200:9 | b2nk 278:5 | b7 14:10 |
| audio 306:8 | 297:12 | 287:19 290:17 | 211:20 212:8 |
| 307:3 | axis 278:20,21 | 291:2,10,14,17 | 216:23 222:21 |
| august 36:2 | b | 291:25 292:10 | 222:22,23,25 |
| 139:5 |  | 292:13 | 235:16 238:18 |
| authenticity | $14: 1 \quad 15: 1 \quad 28: 8$ | b2oj 289:15,22 | 267:3 272:8 |
| 113:13 | 77:7 86:13 | 289:24 290:18 | 273:10,12 |
| authority 29:23 | $88: 8 \text { 91:4,16,20 }$ | 291:1,25 292:1 | 281:11,16 |
| 74:5 | 91:22 92:3 | 292:10,13 | 283:6 |
| authorization | $143: 24,24$ | b2pi 277:25 | b8 14:13 |
| 187:13 188:1 | 147:18 152:12 | 287:19 289:15 | 211:23 212:7 |
| available $38: 8$ | 168:10 188:24 | 289:22 290:4,6 | 224:11,13,14 |
| 40:13 95:3 | 189:1,5 219:19 | 290:20 291:10 | 244:21 246:2 |

Page 11
[b8 - beck]

| 246:15 267:3 | 281:24 | 261:6 282:17 | 123:1 128:12 |
| :---: | :---: | :---: | :---: |
| b9 14:15 | barrels 138:3 | basis 141:25 | 130:15,22,22 |
| 207:16 211:23 | 237:12 278:2,9 | 154:18 179:9 | 130:23 131:15 |
| 212:7 226:12 | 290:19 | 213:21 245:14 | 131:18,20 |
| 226:14 267:3 | base $46: 8$ | 260:11 | 132:15 134:5,7 |
| back 21:2 22:5 | 230:19 231:9 | batteries 186:1 | 135:1,2 139:17 |
| 23:16 27:9,10 | 231:12,17 | 186:10 | 139:21,23 |
| 38:6 40:2,11 | based 39:9,10 | bc 273:10 | 144:9 146:9,13 |
| 43:2 51:5 | 92:6 119:25 | bear 157:8 | 146:19 147:18 |
| 54:24 56:10 | 125:5,8 138:6 | beck 6:13 10:4 | 147:19,24 |
| 71:3,5 82:21 | 140:24 143:17 | 10:8,13,16,18 | 148:4,5,7 151:7 |
| 83:16 91:16 | 157:23 183:5 | 10:20,23 11:4,8 | 151:23 152:1,6 |
| 121:3 134:11 | 199:7 214:20 | 15:4 72:13,14 | 153:16,21,25 |
| 139:11 144:16 | 230:19,21 | 72:16,17,19 | 155:14,17 |
| 147:19 149:6 | 236:5,9,14 | 73:21 75:6,22 | 156:9 157:1,3,6 |
| 152:25 165:20 | 238:12,14 | 75:24,25 77:3 | 160:5 163:23 |
| 171:6,10,18 | 239:22 242:19 | 79:12,17,18,20 | 165:22 166:12 |
| 194:15 199:25 | 242:24 245:3 | 79:21 82:1 | 166:14 168:2,5 |
| 252:7 258:25 | 245:16 253:15 | 85:8,9,12 86:6 | 168:9 169:9,11 |
| 259:16 264:1 | 274:21 282:18 | 86:17 88:5,10 | 171:6,12,19,24 |
| 282:24 284:1,6 | 285:15 290:16 | 88:17,19 89:6 | 172:9,10,13,20 |
| 289:7 | 296:6 297:17 | 89:11,20 90:1,4 | 173:7 178:13 |
| background | baseline 215:21 | 92:10 93:19 | 178:17,25 |
| 20:12 205:13 | basically 46:15 | 94:23,25 95:2,4 | 179:16,17 |
| 269:2 | 47:12 50:1 | 95:12,15,17,20 | 180:5 181:9,13 |
| baker 6:14 | 60:170:22 | 97:18 98:2,5 | 181:18 182:4 |
| balance 234:4 | 162:6 217:16 | 107:8 108:17 | 182:12 186:11 |
| bandwagon | 223:19 245:14 | 108:18,21,23 | 186:13 188:20 |
| 142:17 | 256:1 293:9,17 | 109:5 110:5 | 188:24 189:2,4 |
| barrel 211:19 | 293:22 | 112:2,4,8 | 189:10 194:5 |
| 214:19 221:4 | basin 14:15 | 113:10 114:12 | 204:1,4,12,16 |
| 224:23 227:13 | 206:17,20 | 116:12,15,20 | 205:6,11 |
| 241:15 262:22 | 208:21 225:25 | 117:4,5,8 118:1 | 207:19 208:14 |
| 263:24 264:11 | 226:4,13 | 118:6 122:13 | 208:15 209:18 |
| 267:12 277:5 | 251:15,17,23 | 122:18,20,24 | 209:20 211:1 |

Page 12
[beck - blown]

| 213:10,15 | begins 172:6 | 274:9 275:10 | 138:16 142:25 |
| :---: | :---: | :---: | :---: |
| 214:12,16 | behalf 3:2,13 | 275:19 282:12 | 143:3 184:6 |
| 215:2 218:1,2 | 3:19 4:2,10,16 | 287:5,16 | 195:4,7 205:7 |
| 235:8 241:25 | 5:2,15 6:2,12 | 288:18 289:13 | 223:7 228:13 |
| 246:9,11,13 | 6:18 7:2,18 8:2 | 290:10 | 233:8,9 234:4,7 |
| 248:1,7,13 | 8:9,15 9:2 | believes 33:9 | 234:15 236:1 |
| 249:2,18 250:1 | 17:13,20,23 | 113:7 157:13 | 245:17 256:21 |
| 259:19 262:5,6 | 18:5 31:22 | 209:13 222:7 | 258:23 266:14 |
| 262:11 263:12 | 32:9 36:19,25 | 223:7 | beyond 20:18 |
| 264:17,18 | 37:8 53:20 | bench 207:11 | 250:13 304:3 |
| 266:23 267:2 | 56:20 57:2 | 226:19 227:20 | big 115:10 |
| 267:13 269:15 | 61:5,14 65:1,13 | 227:21 231:8,9 | 270:18 272:23 |
| 269:19,24 | 65:20 72:14 | 232:2 | 273:19 |
| 270:4,7 271:3,4 | 73:3,7,13,14 | beneath 118:25 | bigger 199:10 |
| 280:11,11,15 | 120:3 121:23 | 278:19 | bin 244:23 |
| 280:19,22,25 | 132:4 140:13 | bennett 4:17 | bit 20:12 22:24 |
| 281:5 283:20 | 261:19 | 8:10 17:19,20 | 24:24 66:12 |
| 283:21,22,24 | believe 18:14 | 19:22,23 20:7 | 105:21 118:20 |
| 284:4,5 292:18 | 19:2,19 26:3,16 | 20:11 21:21 | 148:20 154:13 |
| 296:4,6,8,10 | 28:1 29:11,24 | 24:23 30:6 | 157:9 174:8 |
| 297:23 299:11 | 31:17 33:4 | 32:8,9 36:17,18 | 177:17 183:18 |
| 299:23 300:1 | 35:15,25 43:2 | 37:5,11,13 | 187:6 228:20 |
| 301:4,18 303:8 | 44:8 52:24 | 38:19 40:2,4,22 | 231:15 232:20 |
| 303:10 304:18 | 61:25 63:5 | 41:11,14,17,24 | 235:24 240:15 |
| 304:22 | 69:9 77:18,25 | 42:4 48:2 | 240:23 249:15 |
| beck's 171:23 | 78:16 92:22 | best 103:16,19 | 252:17 260:17 |
| beer 305:3 | 116:13 133:20 | 227:16 240:11 | 277:18 295:7 |
| began 99:19 | 137:9 141:16 | 251:5 260:2 | black 212:12 |
| 243:9 | 143:3 145:15 | 270:11 274:22 | blake 9:3 73:2 |
| begetting | 149:3 150:13 | 276:14 279:9 | blake.jones 9:7 |
| 258:21 | 150:23 162:18 | 306:9 307:6 | blended 126:11 |
| beginning | 170:23 183:14 | beth 73:7 | blm 68:6 |
| 30:19 115:17 | 187:3 237:14 | beth.ryan 7:23 | blocks 100:12 |
| 201:15 | 241:21 243:5 | better 78:2 | blown 183:14 |
|  | 245:23 246:25 | 79:10 99:2 |  |

Page 13
[blue - bruce]

| blue 218:21 | 229:13 230:13 | bp 53:8 54:24 | brinkard |
| :---: | :---: | :---: | :---: |
| 245:5 278:17 | 230:18 232:7 | 55:12,14 56:4 | 301:12 |
| 293:8,12 | 233:4 234:18 | breach 74:14 | broad 260:11 |
| bone 13:22,23 | 234:19,21 | break 83:15 | broke 235:24 |
| 14:13 15:21 | 235:6 241:10 | 122:19 134:9 | broken 24:11 |
| 46:7,8 68:13,14 | 241:11,18,20 | 134:10 169:17 | 204:24 288:7 |
| 69:25 70:1 | 241:23 245:10 | 240:22 248:8 | broker 175:11 |
| 81:9,11,13 | 247:14,24 | 248:10,12 | brought 45:22 |
| 136:18,20,24 | 254:21 258:17 | 280:14 285:12 | 118:2 174:14 |
| 137:6,8,12 | 259:15,16 | 287:7 | 182:17 211:18 |
| 138:19,21,23 | 274:23 275:2,4 | breakdown | 211:25 216:2 |
| 139:1,12,14,16 | 275:6 278:15 | 253:20 256:2 | 264:13 |
| 140:22 141:1,5 | 288:17 289:2 | breaking | brown 148:23 |
| 141:23 142:12 | 293:17,19 | 148:21 | 307:2,18 |
| 143:25,25 | border 218:15 | brief 29:22 | bruce 3:7,8 5:3 |
| 144:5,22 | bottom 104:16 | 30:4,4 67:7 | 5:4 10:6,7,12 |
| 145:24,24 | 104:16 190:13 | 77:1 79:20 | 10:15,17,21,24 |
| 148:24 149:1,6 | 279:25 | 160:19 168:6 | 11:5,7 32:12,14 |
| 149:10 150:11 | bought 115:9 | 263:9,9 | 48:22,23 49:7 |
| 150:12 152:10 | boulevard 9:5 | briefings | 49:25 50:3,13 |
| 152:19,20,25 | boundaries | 112:17,18 | 50:16,18 51:8,9 |
| 154:5,6 155:6 | 100:15 119:12 | briefly 67:9,10 | 51:11,16 52:22 |
| 157:13 158:23 | 119:24 | 82:9 143:22 | 53:1,25 54:7,11 |
| 160:21 161:2 | boundary | 246:11 264:9 | 54:14,19 55:4,8 |
| 161:11,18 | 100:5 119:25 | 269:19,20 | 55:12,17,24 |
| 162:4 167:6,7 | bounds 195:9 | briefs 30:1 | 56:2,5,8 64:18 |
| 167:12 168:11 | box 3:5,9 5:5 | 31:11 112:19 | 64:19 65:24 |
| 168:15,18,24 | 6:15 8:6 53:11 | bring 166:4 | 66:2,7,18,22 |
| 169:6 187:4,10 | 212:10 277:13 | 253:22 264:6 | 67:6,8,13 69:19 |
| 187:14,17,21 | 279:23 293:25 | 264:15 284:1 | 69:20,23 70:11 |
| 188:2,6 189:24 | boxed 101:21 | bringing | 70:17,24 71:12 |
| 218:16 219:1 | boxes 212:12 | 147:25 264:5 | 71:15,23 72:22 |
| 220:8,18,22,25 | boy 136:17 | 299:21 | 72:22 75:18,23 |
| 221:9,11 | 244:22 304:3 | brings 37:18 | 76:3,7,13,14,16 |
| 224:12 228:23 |  |  | 76:19,23 77:1 |

Page 14
[bruce - calculated]

| $78: 1479: 3,7,18$ | $145: 20,22$ | $263: 16264: 5$ | burden $76: 23$ |  |
| :--- | :--- | :--- | :--- | :---: |
| $80: 2182: 2,4,24$ | $146: 8148: 10$ | $266: 25267: 16$ | $79: 3,5,12,13$ |  |
| $83: 1,3,7,12,21$ | $148: 14151: 25$ | $267: 21268: 5,8$ | burdensome |  |
| $83: 2484: 3,11$ | $152: 2153: 3,5$ | $268: 11,15,22$ | $28: 24$ |  |
| $84: 16,2485: 3$ | $153: 17,21$ | $268: 23269: 9$ | bury $186: 8$ |  |
| $87: 2,5,6,24,25$ | $154: 24155: 5$ | $270: 10,14$ | business $49: 12$ |  |
| $88: 3,12,14,17$ | $156: 6,18,22,25$ | $271: 7,11,13$ | $188: 18215: 13$ |  |
| $90: 8,10,17,20$ | $159: 4164: 17$ | $272: 3,5279: 18$ | button $218: 4$ |  |
| $90: 2291: 5,6,7$ | $164: 18,20,23$ | $280: 8281: 18$ | bye $305: 13$ |  |
| $91: 12,14,17,20$ | $166: 1,2,3,10,22$ | $286: 5288: 10$ | c |  |
| $92: 7,15,17,21$ | $167: 3,4,23$ | $293: 22294: 18$ | c $3: 14: 15: 16: 1$ |  |
| $92: 2593: 10,11$ | $168: 1,23$ | $294: 21,24$ | $7: 18: 19: 1$ |  |
| $93: 14,2394: 6,8$ | $169: 20,23$ | $296: 3298: 1,3,5$ | $12: 614: 19$ |  |
| $94: 11,1797: 16$ | $170: 3,6,10,11$ | $298: 13,23$ | $16: 217: 128: 8$ |  |
| $97: 19,2098: 8$ | $170: 15,19,22$ | $299: 1,4,6,21,25$ | $58: 14,2159: 3$ |  |
| $98: 11,2399: 2,7$ | $171: 3173: 1,3$ | $300: 2,9,18,20$ | $88: 8,20,22,25$ |  |
| $99: 12102: 5,8,9$ | $179: 6,7,10,15$ | $301: 2,10,17$ | $89: 1,2,4,8,16$ |  |
| $102: 12,17,20$ | $180: 24181: 1$ | $302: 8,8,15,20$ | $89: 24,2490: 6,6$ |  |
| $103: 3,12104: 9$ | $182: 9188: 23$ | $303: 1,24304: 3$ | $92: 12,1393: 3$ |  |
| $104: 10,11,14$ | $189: 12,13,15$ | $304: 19305: 2,6$ | $94: 13248: 20$ |  |
| $104: 24105: 5,6$ | $194: 9,11,14,17$ | $305: 10,13$ | $249: 4268: 20$ |  |
| $107: 11108: 15$ | $194: 18196: 4$ | bta $8: 242: 8$ | $277: 12$ |  |
| $113: 11,12$ | $200: 14207: 25$ | $56: 2157: 10,18$ | c1 $14: 2189: 1,4$ |  |
| $114: 11,23$ | $208: 1209: 13$ | $58: 7$ | $93: 3250: 7$ |  |
| $115: 11,16$ | $210: 2,6,17,21$ | bubble $273: 21$ | c1o2s $162: 23$ |  |
| $116: 16,19,22$ | $210: 23216: 19$ | $273: 22281: 13$ | c2 $14: 2289: 1$ |  |
| $117: 3128: 15$ | $216: 20217: 4$ | $281: 16$ | $252: 2$ |  |
| $132: 18,20,23$ | $235: 10,12,15$ | bubbles $273: 14$ | c3 $14: 2389: 1$ |  |
| $133: 19,22$ | $235: 25242: 22$ | build $139: 7$ | $254: 3256: 1$ |  |
| $134: 3,11,12,16$ | $243: 6,9247: 8$ | building $255: 5$ | c4 $14: 2589: 2,4$ |  |
| $134: 18135: 10$ | $247: 16,18$ | built $161: 1$ | $93: 3256: 9,11$ |  |
| $137: 17139: 19$ | $249: 22,24$ | bump $233: 23$ | $256: 12$ |  |
| $139: 20140: 2,3$ | $259: 21,22,24$ | bunch $71: 3$ | calculate $282: 1$ |  |
| $140: 5,10$ | $261: 21,25$ | $176: 10$ | calculated |  |
| $144: 14,15,17$ | $262: 14,16,19$ |  | $127: 10132: 8$ |  |
|  |  |  |  |  |

Page 15
[calculated - cases]

| 132:13 242:16 | carbon 120:21 | 24:8 26:9,14,17 | 262:10,12,15 |
| :---: | :---: | :---: | :---: |
| 242:18 292:3 | card 53:6,8 | 31:24 32:5,13 | 265:8 266:13 |
| calculating | 54:2,17,18,19 | 32:18,20,22,24 | 267:8 287:18 |
| 132:4 245:3 | 54:22,24,25 | 34:1 35:15,24 | 299:5,24 304:9 |
| 281:19 | 55:10,11 56:1,4 | 36:1,2,7,8 | cases 12:21 |
| calculation | cards 68:18,18 | 39:22 42:2,12 | 13:3 17:10,18 |
| 127:4 | 68:22 71:3,5 | 42:13 43:3,18 | 18:8,11,12,14 |
| calculations | care 63:6 | 44:1 45:12 | 19:8 20:4,5,8 |
| 131:22 232:21 | 261:25 304:6 | 47:1,8 49:19 | 20:17,18,23,25 |
| call 17:10 21:25 | career 206:19 | 54:15 57:9,18 | 21:4,6,8,13 |
| 31:19 99:14 | carrell 10:14 | 59:24 60:1 | 22:11 24:24 |
| 134:16,19 | 94:12 96:9 | 65:14 66:9 | 25:5,8,9,16,20 |
| 141:1 215:23 | 134:19 135:7 | 67:1,9 69:1,4,6 | 26:6,7,13,15,22 |
| 237:17 248:5 | 140:2,11 | 69:11,21,25 | 26:25 27:1,2,3 |
| called 1:652:9 | 143:20 144:16 | 70:176:15,21 | 27:4,5,13,14,19 |
| 75:8 96:5,10,15 | 144:18 146:15 | 77:6 78:15 | 27:20,22,25 |
| 96:20,25 97:8 | 146:20 147:21 | 82:2 85:3 | 28:4 30:13,16 |
| 139:3 | 148:8 151:2 | 97:17,17,18 | 30:24 31:14 |
| calling 31:17 | 152:13 153:6 | 98:25 114:25 | 32:2,10,15 |
| 36:15 42:19 | 154:14 157:7 | 119:14 136:10 | 34:18,23 36:4,6 |
| 170:13 244:12 | 160:6,13,13,14 | 142:4 149:19 | 36:9,12,20 37:3 |
| calls 172:14 | 167:5 168:10 | 150:7 160:24 | 37:12,15,17,20 |
| 176:10 | 228:17 230:12 | 164:4 170:13 | 40:16 42:15 |
| camera 53:16 | 231:3,22 233:5 | 170:21 171:2,7 | 43:3 44:11 |
| 94:22 135:3 | 237:2 279:21 | 171:23 172:3,4 | 47:14 48:17 |
| cameras 64:21 | 297:9 | 174:10,14 | 50:15,19 51:5 |
| 94:21 95:8,11 | carrell's 229:11 | 178:21,24 | 52:21 53:12,19 |
| 95:13 | 230:2 274:21 | 187:13,16 | 53:22 55:5,24 |
| capacity 27:16 | 275:8 | 190:9 195:2,8 | 56:7 58:19 |
| capitan 42:8 | carry 127:7 | 195:21 201:22 | 59:6 60:22 |
| 57:17,25 | 198:23 | 202:2,6,7,8,10 | 61:6,11,23 62:7 |
| caption 28:2 | carryovers | 202:12,19 | 63:21 64:12 |
| captions 28:3 | 211:20 | 214:22 224:17 | 65:25 66:23 |
| captured 169:6 | case 1:9 12:3,9 | 229:5,8,24 | 67:11 69:22 |
|  | 17:18 23:10,17 | 230:1 231:13 | 70:10 71:9 |

Page 16
[cases - choose]

| 72:23 73:3,4,18 | certificate 76:8 | characteristics | 286:10 288:6 |
| :---: | :---: | :---: | :---: |
| 77:22 78:12 | 306:1 307:1 | 273:4 274:25 | 288:12 289:10 |
| 79:4,13 80:20 | certified 12:16 | 275:8 | 289:17 291:11 |
| 98:13,18 | 53:2,6,7,13 | chart 244:23 | childers 58:2 |
| 130:24 136:9 | 54:2,3 55:2 | 294:4 | 58:10 |
| 162:10 177:6 | 58:15 68:19 | cheaper 254:14 | children 207:2 |
| 185:6,17,19 | 70:25 | check 71:22 | 225:13 227:9 |
| 186:15 192:7 | certify 306:3 | 86:12 133:19 | 286:18,21,24 |
| 192:15 200:12 | 307:2 | 156:20 | 287:1,9,13,21 |
| 201:7 202:20 | cetera 28:8 | checked 71:19 | 287:24 289:11 |
| 203:6 226:16 | 67:17 68:10 | checklist 12:18 | 291:10 |
| 229:1,2,14 | 136:15 175:19 | 43:20,24 44:2,4 | chisholm 80:3 |
| casing 255:15 | 176:15,15 | 44:18,20 45:12 | 80:9 101:4,4,10 |
| 255:22 | 250:14 260:12 | 46:12,14 50:1,4 | 107:1,14,15 |
| catch 46:24,25 | chakalian 2:5 | 50:14 52:1 | 108:3 109:18 |
| 127:14 | 19:1 24:6 | 54:4,15 55:9,9 | 111:1,5,11 |
| cause 197:1 | 31:21 35:11 | 68:24 70:8,16 | 113:19 115:8,9 |
| 203:1 259:6 | 36:24 37:7 | 164:25 | 116:24 143:6 |
| 272:22 | 42:22 43:1 | checklists 53:3 | 159:21,25 |
| caused 20:22 | 56:25 73:12 | chief 82:3 | 173:15,22 |
| caveat 271:15 | challenge | 97:17,18 98:25 | 174:9,13,14 |
| center 135:22 | 191:23 | 170:14,21 | 178:3 190:13 |
| 184:15 274:15 | challenging | 171:23 172:3,4 | 190:14,18 |
| certain 67:25 | 192:1 | 262:10,12 | 191:2,4 195:16 |
| 105:11 107:24 | chance 111:21 | 265:8 | 195:22 201:18 |
| 113:15 138:10 | 111:21 130:15 | child 207:3,6,9 | 201:19 203:3,4 |
| 158:11 196:20 | 208:7 233:8 | 207:10,16 | 203:5,11 250:4 |
| 225:6 226:20 | 299:10 | 212:17,20 | 250:8,10,19 |
| 227:18 237:6 | change 45:23 | 213:23 225:7 | 251:10 |
| 264:7 275:24 | 202:24 273:21 | 225:10 226:20 | chisholm's 80:6 |
| 296:24 300:13 | changed 46:5 | 227:14 228:9 | 80:21 111:7 |
| certainly 20:22 | 101:20 169:2,4 | 236:9,18 | 177:25 |
| 85:25 155:5 | changes 88:18 | 240:15 285:11 | choice 39:4 |
| 166:18 264:20 | 202:5 298:18 | 285:14,16,20 | choose 190:16 |
| 266:2,3 298:11 |  | 285:23 286:2 | 225:20 |

Page 17
[christine - commit]

| christine 307:2 | close 49:12 | collectively | comes 133:9 |
| :---: | :---: | :---: | :---: |
| 307:18 | 141:16 165:5 | 60:3 | 207:11 213:4 |
| cimarex 3:19 | 223:3 225:8 | color 245:5 | 231:2 |
| 65:21 | 233:6,17 234:5 | 269:8 298:18 | comfortable |
| circle 273:25 | 292:6 | coloration | 206:12 283:18 |
| circumstance | closed 250:4 | 245:7 | coming 14:7 |
| 39:15 | 254:25 255:3 | colors 84:25 | 28:17 95:21 |
| circumstances | 299:22 300:8 | com 57:17,25 | 154:18 162:12 |
| 20:18 22:2 | closely 118:20 | 68:8 136:23 | 166:15 173:15 |
| citing 74:5 | 237:3 | 174:21,22 | 180:4 204:24 |
| civitas 34:5,9 | closer 33:4 | 229:6,6,9 | 222:16 233:17 |
| 34:14 | 85:24 183:18 | combination | 258:25 259:16 |
| claim 255:1 | 223:20 225:13 | 175:11 293:13 | 269:24 283:25 |
| clarification | 240:16 290:13 | combined | 289:20 |
| 46:20 244:1 | 291:13,19 | 133:7 | commence |
| clarified 166:24 | closest 276:6 | come 21:2 22:5 | 99:24 |
| clarify 203:8 | closing 299:13 | 22:25 23:16 | comment |
| clarifying | 299:16 300:16 | 25:16 29:15 | 234:17 270:15 |
| 203:16 294:16 | 300:25 303:23 | 31:12,14 38:6 | commentary |
| class 210:11 | codesigned | 38:16 40:12 | 212:8,9 |
| clear 86:4 89:7 | 199:18 | 47:14 83:15 | commented |
| 98:25 105:3 | codevelop | 107:7 134:11 | 242:4 |
| 117:10 178:23 | 153:7 155:8,10 | 139:11 149:5 | commission |
| 179:1 189:8 | 184:19 199:5 | 152:25 159:18 | 22:14,19 23:10 |
| 246:6 264:22 | codeveloped | 161:7 171:6,10 | 23:17 25:2,6,7 |
| 265:1 | 149:4 152:24 | 173:18 175:9 | 25:8,10 26:9,17 |
| clearer 148:20 | 199:17 287:17 | 180:7 188:6 | 26:19 27:18,21 |
| clearly 100:19 | codeveloping | 197:17 207:8 | 28:6 74:13 |
| 204:25 208:4 | 185:9 | 208:23 209:4 | 77:7,8 113:23 |
| clerk 9:14 | $\boldsymbol{\operatorname { c o g }}$ 7:18 73:7 | 209:12 236:13 | 187:25 |
| client 24:12 | 197:10 | 236:19 237:3 | commissioner |
| 154:25 155:2 | colgate 6:2 18:5 | 254:14 260:7,8 | 74:19 78:8 |
| 156:10 | 23:24 65:1,2 | 260:9,22 261:2 | 103:1 |
| clients 21:10 | collaborative 236:25 | 298:1 | $\begin{aligned} & \text { commit } 108: 3,6 \\ & 190: 16 \end{aligned}$ |

Page 18
[commitment - conclude]

| commitment | $231: 7265: 10$ | $78: 2079: 22$ | complicated |
| :--- | :--- | :--- | :--- |
| 100:10 | $265: 12$ | $80: 10,1781: 4$ | $22: 11,1725: 11$ |
| committed | company's | $173: 14176: 18$ | complied $45: 3$ |
| $57: 10196: 25$ | $182: 20$ | $185: 19204: 9$ | composition |
| 197:11,21 | compare | $222: 1253: 8$ | $281: 21$ |
| 198:9 | $185: 16206: 23$ | $256: 3265: 2$ | compound |
| common | $207: 1215: 7$ | competitor | $194: 6$ |
| $115: 22116: 1$ | $231: 15235: 3$ | $238: 4$ | comprehensive |
| 260:5 300:19 | $253: 7287: 2$ | complete $66: 1$ | $25: 16$ |
| 300:21 | compared | $66: 469: 10$ | comprised |
| communication | $108: 7131: 23$ | $71: 18,20,21$ | $57: 14,21$ |
| $177: 12$ | $214: 2223: 16$ | $85: 22136: 21$ | compulsory |
| communicati... | $278: 4291: 14$ | $176: 24187: 14$ | $29: 844: 2$ |
| $122: 9175: 23$ | $292: 13$ | $188: 1$ | $46: 12,1459: 25$ |
| $177: 17$ | comparing | completed | $60: 178: 20$ |
| communitiza... | $50: 22214: 16$ | $19: 2062: 1$ | $178: 11184: 22$ |
| $68: 4$ | $214: 18224: 5$ | $67: 14279: 6$ | $197: 2219: 14$ |
| companies | $229: 17291: 9$ | $289: 15295: 3$ | $220: 2234: 25$ |
| $105: 11141: 14$ | $296: 11$ | $295: 10,11$ | computer $66: 8$ |
| $213: 18214: 3$ | comparison | completion | $70: 1983: 13$ |
| company $3: 2$ | $14: 23222: 4$ | $167: 13212: 1$ | $118: 2162: 22$ |
| $3: 13,204: 10,16$ | $224: 9226: 11$ | $212: 19224: 4$ | $252: 2$ |
| $5: 26: 1817: 13$ | $234: 13253: 12$ | $224: 10237: 22$ | concepts $33: 2$ |
| $17: 2428: 19,21$ | $254: 3,9257: 24$ | $245: 13,15$ | concern $40: 11$ |
| $32: 1553: 9,20$ | $258: 11265: 4$ | $246: 22255: 17$ | $210: 4$ |
| $53: 2155: 13,15$ | comparisons | $255: 18,25$ | concerned |
| $57: 265: 21$ | $185: 22208: 20$ | $256: 13257: 2,7$ | $45: 18$ |
| $72: 2373: 14$ | $257: 23$ | $262: 24264: 13$ | concerns $40: 7,8$ |
| $107: 16126: 8$ | competent | $277: 15278: 1$ | $50: 1052: 15$ |
| $126: 21128: 24$ | $154: 15208: 22$ | $280: 5285: 2$ | $191: 21230: 3$ |
| $186: 19,20$ | $216: 6,11,17$ | completions | concession |
| $196: 1199: 20$ | competing $25: 3$ | $256: 19$ | $256: 21$ |
| $199: 23201: 17$ | $26: 2128: 16$ | compliance | concise $299: 18$ |
| $201: 17202: 14$ | $29: 832: 6$ | $151: 21$ | conclude |
| $203: 4226: 8,8,9$ | $33: 19,2277: 5$ |  | $262: 10$ |
|  |  |  |  |
|  |  |  |  |

Page 19
[concluded - continued]

| concluded | confusing | 89:14 113:8 | contacted |
| :---: | :---: | :---: | :---: |
| 305:15 | 89:25 270:12 | 180:13 222:4 | 176:13 |
| concludes | confusion | 223:2 233:4 | contained |
| 262:12 271:8 | 169:13 | 247:15 258:16 | 214:9 263:20 |
| conclusion | connected | 265:3 | containing |
| 157:22 228:10 | 18:21 | considerations | 67:16 |
| 236:13,19 | connectio | 233:15 | contains 68:9 |
| conclusions | 98:24 99:1 | considered | 165:7 |
| 185:21 300:17 | 263:14 | 226:5 272:17 | contents 88:6 |
| 301:1 | connection | considering 1:8 | 206:4 |
| concurs 63:16 | 136:15 | 112:13 232:18 | contestant 33:7 |
| conducted | connectivity | consistent | contested 38:8 |
| 74:14 300:12 | 24:7,9,16 30:19 | 37:25 137:3,7 | 40:13,17 41:2,9 |
| confer 21:10 | 98:21 124:24 | 231:20 232:13 | 41:19,22 64:8 |
| conference | 142:10 208:10 | 233:13,25 | 72:778:25 |
| 18:8 19:17,24 | 216:24 217:2 | consistently | 83:19 172:2 |
| 25:20 30:9 | 235:22 236:6 | 231:24,25 | 209:2 300:11 |
| 32:24 33:10 | 242:15 | consolidate | continuance |
| 34:10,22 35:2 | conoco 7:18 | 25:5 | 35:1,13 41:13 |
| 35:13,22 37:19 | 73:7 197:10 | consolidated | 62:8 63:8,21,25 |
| 40:5 41:4,6,18 | conocophillips | 18:11 25:10 | 64:1 |
| 41:21 | 7:20 | 55:5 229:1 | continuances |
| confident 39:1 | conocophilli... | consolidating | 34:25 35:20 |
| 208:18 209:7 | 7:23 | 59:11 72:8 | 41:7,22 |
| confine 267:23 | consent 103:1 | constructed | continue 18:20 |
| confined | conservation | 49:5 139:9 | 18:24 25:20 |
| 106:10 268:2 | 1:3,6 17:3 | construction | 36:11,12 38:3 |
| confirm 164:2 | 104:19 | 139:9 | 43:19 47:8 |
| confirmed | conserve 25:18 | construed 75:4 | 61:22 62:7 |
| 204:6 | consider 38:11 | cont'd 4:1 5:1 | 63:1,3,10,13 |
| confuse 122:16 | 164:8,9 169:18 | 6:17:1 8:1 9:1 | 72:20 78:14 |
| confused 59:22 | 178:9 222:1 | 11:1,2 13:1,3 | 156:13 182:11 |
| 89:3 90:21 | 304:8 | 14:1 15:1 16:1 | 218:1 |
| 104:12,23 | consideration | contact 177:18 | continued |
| 163:10 | 74:15 77:12 |  | 42:17 43:7 |

Page 20
[continued - could've]

| 48:25 | 125:19 126:1 | 175:1 177:24 | corrected 86:1 |
| :---: | :---: | :---: | :---: |
| continuing | correct 18:11 | 178:7 187:18 | 124:10 |
| 65:14 83:19 | 19:10 28:2 | 189:19,20,22 | correcting |
| continuous | 31:23 32:18,19 | 190:6,7 191:11 | 45:12 |
| 68:15 | 35:17,18,19 | 191:12 192:9 | correction |
| contour 220:10 | 46:18 47:15 | 192:10 193:20 | 45:23 |
| contoured | 50:2 51:16 | 193:21 194:22 | correctly |
| 219:1 | 52:25 53:1 | 196:17 197:8 | 128:23 152:5 |
| contract 100:11 | 56:18 59:13,21 | 204:11 205:17 | 158:4 201:20 |
| 301:7 302:21 | 60:2 61:6 63:4 | 205:21 207:24 | correlated |
| control 20:18 | 63:9,14 64:9 | 211:17 215:3 | 278:24 |
| 77:13,21 | 66:18 72:18 | 218:22 219:17 | correlation |
| 218:15 | 76:4,13 83:24 | 219:24 220:4 | 278:10 279:11 |
| controls 58:7 | 85:5 86:16,17 | 223:15,18,18 | 284:25 287:3 |
| 74:23 | 88:9,10 91:19 | 225:5 227:2,6 | 288:3 |
| controversy | 92:7,25 94:16 | 227:10 229:10 | correlative |
| 121:15 | 98:14,19 99:15 | 229:20 230:15 | 80:25 |
| convenience | 99:16 100:21 | 232:10 234:10 | corresponden... |
| 299:17 | 101:1,9 102:3,4 | 234:23 235:20 | 120:24 |
| conversation | 102:10 105:13 | 238:20 239:7,9 | corresponding |
| 200:9 204:5 | 105:16,20 | 241:14 242:3 | 218:16 |
| conversations | 106:8,13 108:9 | 253:5 256:7 | cost 185:10 |
| 176:16 177:14 | 108:13 110:21 | 257:21 262:16 | 198:10 255:12 |
| 190:25 191:3 | 111:4,9,13,19 | 273:11 274:6 | 256:14,15,23 |
| convoluted | 117:16,17,19 | 276:18 281:9 | 256:25 257:17 |
| 26:13 | 119:4,6,8,15 | 282:23 283:4 | costings 257:18 |
| copied 120:21 | 123:4 124:9 | 283:12 288:1 | costs 257:18 |
| 121:2 180:23 | 128:24 129:8 | 288:13 289:23 | 260:9,16,16,17 |
| copy 55:25 | 129:10 133:5 | 290:2,5,10 | 260:23,25 |
| 118:16 176:6 | 141:7,12 | 294:7 295:5,8 | 261:2 |
| corner 272:10 | 143:14 145:19 | 295:12 296:16 | coterra 3:19 |
| corollary | 152:14,15 | 296:21 297:4 | 65:20 |
| 179:22 | 153:15 158:9 | 297:11 298:3,8 | could've 89:7 |
| corporation | 159:10 163:3,4 | 298:16 301:1 | 112:24 143:9 |
| 124:1,6,18 | 167:8 171:3 | 302:19 | 150:4,4,23 |

[could've - currently]

| $151: 12,14$ | $97: 18140: 7$ | $278: 22282: 13$ | $158: 21165: 24$ |
| :---: | :---: | :---: | :---: |
| $154: 20159: 11$ | $141: 19156: 21$ | $282: 15$ | $168: 13189: 12$ |
| $159: 14190: 18$ | $165: 6213: 1$ | creation $217: 19$ | $189: 14208: 8$ |
| 190:22 $191: 3$ | $255: 7273: 23$ | creative $40: 3$ | $208: 11214: 19$ |
| 192:18,22 | $303: 2304: 7$ | credentials | $216: 3217: 13$ |
| counsel $64: 21$ | court $17: 4$ | $205: 14$ | $217: 23219: 2$ |
| $65: 572: 11$ | $24: 1882: 14$ | credibility | $220: 13,20$ |
| $177: 1306: 10$ | $99: 5110: 3,16$ | $180: 12181: 5$ | $230: 13231: 5$ |
| $306: 13307: 7$ | $111: 24172: 8$ | $181: 23$ | $235: 14239: 15$ |
| 307:10 | $194: 14,14$ | credited $183: 10$ | $239: 19243: 1$ |
| count 196:25 | $204: 25266: 2$ | criteria $231: 8$ | $243: 15259: 23$ |
| 197:11,25 | $301: 21302: 10$ | $231: 11$ | $275: 14,18$ |
| counted $250: 12$ | $302: 12,18,21$ | critical $281: 10$ | $281: 4294: 19$ |
| $267: 6$ | $302: 22$ | $281: 13$ | crossing $186: 6$ |
| counterpart | court's $86: 8$ | criticism | crucial $181: 6$ |
| $246: 19$ | $266: 1$ | $281: 16$ | cuff $261: 5$ |
| counting | courtesy | criticisms | cume $237: 11$ |
| $250: 16$ | $176: 13$ | $283: 5,9,14$ | $284: 22$ |
| county $57: 15$ | courthouses | criticize $283: 1$ | cumulative |
| $260: 19,20$ | $175: 13$ | criticizing | $138: 2277: 14$ |
| $282: 17$ | cover $27: 5,7$ | $229: 22$ | $278: 2,8,20$ |
| couple $17: 10$ | $44: 283: 23$ | cross $14: 3$ | $279: 7280: 3$ |
| $25: 1440: 6$ | $84: 2390: 2$ | $58: 12116: 14$ | $281: 24284: 14$ |
| $67: 1077: 16$ | $141: 6$ | $117: 7130: 15$ | $285: 6286: 17$ |
| $103: 20108: 19$ | covered $27: 4$ | $131: 15132: 19$ | $293: 2296: 14$ |
| $132: 20139: 6$ | $46: 13290: 11$ | $134: 6135: 12$ | $297: 17$ |
| $146: 15190: 12$ | covid $20: 14$ | $136: 18,25$ | cumulatively |
| $196: 5216: 20$ | $25: 1530: 14$ | $138: 6143: 24$ | $290: 19$ |
| $234: 12259: 22$ | craning $292: 10$ | $144: 19,25$ | cured $52: 7,8$ |
| $261: 14262: 19$ | create $214: 24$ | $145: 1,6,11,18$ | $53: 1471: 6$ |
| $263: 2,9270: 24$ | $215: 1,15222: 5$ | $146: 18,22$ | current $31: 24$ |
| $294: 21$ | $273: 14$ | $147: 2,5,10,13$ | $45: 23192: 23$ |
| coupled $275: 3$ | created $150: 19$ | $148: 1,2,3$ | $249: 9$ |
| course $21: 3$ | $151: 13,14,19$ | $150: 24157: 1$ | currently $104: 1$ |
| $30: 776: 24$ | $151: 20211: 6$ | $157: 23158: 1,2$ | $104: 4198: 24$ |
|  |  |  |  |

Page 22
[currently - decreasing]

| 251:15,16 | 211:18,22 | david 58:2 | dealt 30:14 |
| :---: | :---: | :---: | :---: |
| cut 85:22 | 213:12 214:15 | 93:13 | dean 51:25 |
| 110:23 | 214:17 217:13 | dawson 104:17 | 52:15 |
| cutoff 255:3 | 226:10 236:18 | 118:8,13 | deanna 4:17 |
| cutting 111:23 | 238:4 252:6 | 120:16 133:24 | 8:10 17:20 |
| 255:1,12 | 273:12 276:4,6 | 176:7,11,17 | 32:9 36:18 |
| 280:23 | 279:5,11 | 177:8,16,19,24 | debate 23:2 |
| cv 88:21 | 281:11,17 | 200:1 201:1,11 | december |
| cx 10:10 11:2 | 282:2,2,3,4,11 | day 43:5 47:7 | 33:11,12 34:11 |
| d | 282:20 283:1,6 | 74:10 213:21 | 34:22 35:15,22 |
| d 10:1 11:1 | 283:15 286:9 | 213:21 237:2,3 | 40:13 80:2 |
| 15.3 16:1,2, | 286:13 287:2 | 254:16,19 | 107:1 111:3 |
| $17: 1 \text { 88:8 93:5 }$ | 288:7 293:2 | 298:8 300:4 | 114:18 |
| 93:7,13,18,19 | 298:7,16,18 | 305:12 | decide 48:10 |
| 94:1,3 110:10 | dataset 286:10 | days 85:19 | 173:25 214:2 |
| 172:18,19 | 286:14 | 111:12 113:1 | 217:10 304:12 |
| d1 15:593:7,20 | date 2:3 23:11 | 193:3 209:3,3 | decided 27:8 |
| 94:1,3 | 31:3 38:8 45:1 | 253:2 300:14 | 79:9 137:14 |
| d2 15:6 93:20 | 61:23 62:7 | 302:3,11 | 194:2,3 195:1 |
| d3 15:7 93:21 | 63:11 74:9 | 303:10,14,15 | 233:23 247:13 |
| d4 15:8 93:8,22 | 83:1,6 86:2 | de 5:18 6:5 | 265:7 |
| 94:4 | 100:2 110:12 | 7:21 22:13,16 | decides 39:24 |
| damage 259:7 | 139:12 149:20 | 23:25 25:1 | deciding |
| dana $2: 83: 3$ | 152:25 187:5 | 26:8,25 27:5,6 | 110:17 |
| 8:4 17:13 | 188:8 237:13 | 27:12 | decision 21:17 |
| 56:20 301:24 | 252:13 258:9 | dead 113:25 | 23:7 27:24 |
| 301:25 303:13 | 259:8 272:25 | deadline 30:2 | 166:4 200:13 |
| 306:2,21 | 273:18 277:16 | 43:9 49:11 | 204:9 247:22 |
| $\text { darin } 3: 14,21$ | 303:21 | deal 33:5,15 | 275:1 276:7 |
| 17:23 65:19 | dated 107:1 | 41:21 73:20 | 304:8 |
| darn 299:8 | 114:17 186:18 | 169:16,17 | decreased |
| dashed 219:4 | 258:2,8,10 | 217:23 268:3 | 289:11 |
| 278:18 | dates 212:1,1 | dealing 78:5 | decreasing |
| data 14:22 | davenport 58:2 | 188:25 | 228:15 |
| 208:6 211:11 | 58:3 |  |  |

Page 23
[dedicated - developing]

| dedicated | delay 20:13,23 | 247:10,15,17 | despite 279:25 |
| :---: | :---: | :---: | :---: |
| 57:16,24 | 25:12 74:1 | 247:21 272:14 | detail 48:6 |
| deep 14:9 79:25 | delayed 20:19 | 276:13 289:1 | 50:22 |
| 80:5,8 98:13,19 | deleted 115:5 | deposited 226:1 | detailed 52:17 |
| 99:13,19 | delineated | deposition | details 28:11 |
| 102:23 107:24 | 218:20 | 306:1 | 45:16 52:3 |
| 108:4 109:20 | denied 76:11 | depth 45:16 | 177:15 253:13 |
| 111:2,8 117:12 | deny 75:15 | 46:21 48:6 | determination |
| 118:11,25 | denying 73:23 | 50:25 165:1 | 161:13 232:7 |
| 119:7,25 123:7 | 74:2 177:4 | 167:13,14 | determine |
| 123:15 126:3,7 | department 1:2 | 215:10,10 | 222:18 231:17 |
| 136:22 174:12 | 226:9,9 249:16 | 223:21 233:7 | 243:11 |
| 177:22 182:19 | depend 233:10 | 289:9 290:15 | determined |
| 185:15 201:2,8 | 260:12 273:3 | 291:22,24 | 231:8 242:20 |
| 202:19 221:17 | depending | 292:14 | determining |
| 222:17,19 | 199:16 272:24 | depths 164:24 | 232:21 |
| 223:4,13,17 | depends 225:23 | describe 276:22 | detriment |
| 233:18 234:5 | 260:6 | described | 228:7 |
| 244:13 274:10 | depict 222:6 | 113:20 | detrimental |
| 274:14 282:4 | depicted 218:9 | description | 225:9,18 |
| deeper 174:8 | 222:11,21 | 12:2,8,20 13:2 | 233:21 |
| 286:8 | 223:12,19 | 13:11 14:2 | detrimentally |
| defer 128:4,10 | 224:13 230:22 | 15:2,11,20 16:3 | 226:18 227:19 |
| define 207:7 | 256:10 | design 212:19 | develop 153:14 |
| definitely | depicting 254:8 | 224:4 237:22 | 191:4,7 192:16 |
| 165:23 | depiction 14:6 | 245:16 246:21 | 195:5 209:15 |
| definition | 222:15 230:12 | 246:22 | 221:6 237:5 |
| 207:8,15 | deplete 242:12 | designated | developed |
| degradation | depleted | 100:17 102:21 | 154:16,19 |
| 212:17 | 223:22 237:8 | designation | 184:24 190:19 |
| degrees 210:7 | 237:17 272:10 | 191:22 | 193:8 208:16 |
| delaware | 292:7,15 | designs 224:10 | 209:5 236:17 |
| 206:17,20 | depletion 153:1 | desire 136:21 | 246:1 247:13 |
| 208:21 282:17 | 153:8 240:19 | desires 37:15 | developing |
|  | 242:10,14,14 |  | 215:6 |

[development - discussing]

| development | 274:7 277:5,8 | digging 174:8 | 226:22,24 |
| :---: | :---: | :---: | :---: |
| 14:11 37:22 | diagrams | digital 306:8 | 244:15 278:24 |
| 81:4,23 142:11 | 262:22 263:24 | 307:3 | dired 116:12 |
| 142:12 143:5 | 264:3 | diligence 174:3 | disadvantage |
| 155:3,14 | difference | 174:4 | 243:2 |
| 173:25 185:5 | 152:4 246:25 | diligent 77:18 | disagree 230:22 |
| 186:24 187:9 | 254:13,19 | dilute 108:13 | 300:2 |
| 188:16,17 | 256:17,23 | dire 10:3,5 | disallowed |
| 189:24 190:15 | 257:1,3,5,7 | 108:18 112:5 | 146:6 |
| 191:13,15,23 | differences | 180:25 181:3 | discernible |
| 192:2,12,16 | 33:6 212:18 | 209:15 210:3 | 279:11 |
| 193:9,10 199:1 | different 36:6 | 216:3 | disciplines |
| 208:2 213:23 | 54:15 66:13 | direct 88:23 | 237:5 |
| 214:21 215:6 | 69:24,24 78:19 | 89:8 92:13 | disclosed 85:18 |
| 215:15 222:5,7 | 127:8 128:2 | 98:10 116:21 | 144:11 281:23 |
| 222:25 224:6 | 146:6 186:23 | 117:20 126:25 | 282:25 |
| 224:20 233:16 | 187:6 220:9 | 135:9 156:14 | discourage |
| 233:23 234:20 | 224:9 229:2 | 164:9 170:5,6 | 119:16 |
| 236:17 241:15 | 231:6,10 237:3 | 172:22 173:6 | discourages |
| 264:24 277:7 | 242:8 264:19 | 175:18 188:21 | 119:12,23 |
| 296:2 | 284:20,21 | 205:10,12,18 | discovered 85:4 |
| devon 4:10 | 285:3 287:11 | 206:5,8,14 | 202:1 |
| 73:13 104:5 | 296:14,17 | 223:10 226:11 | discuss 156:14 |
| 105:1,15,17,21 | 298:18 | 249:1 265:16 | 206:4,8 253:19 |
| 106:1 123:25 | differentials | 272:4 273:15 | 255:2 |
| 127:1 183:21 | 254:12 | 283:10 | discussed 19:17 |
| 186:19 187:20 | differently | directed 112:19 | 148:14 180:5 |
| 187:25 188:9 | 214:7 242:7 | 163:11 | 220:15 281:18 |
| 189:18 190:8 | differing | direction 22:19 | 282:2 |
| 190:10 196:14 | 185:21 | 135:19 136:6 | discussing |
| 197:5 | difficult 68:3 | 227:18 | 148:10 180:1 |
| devon's 106:21 | 217:4 | directly 29:18 | 226:17 230:12 |
| 133:15 187:7 | dig 165:12 | 112:14 114:21 | 242:1 246:1 |
| diagram $266: 24,25$ | digest 299:9 | $\begin{aligned} & \text { 159:1 161:19 } \\ & 219: 22 \quad 221: 18 \end{aligned}$ | 279:1 |

Page 25
[discussion - drawn]

| discussion 43:3 | dive 76:20 | 302:9,17,21,24 | doors 22:22 |
| :---: | :---: | :---: | :---: |
| 43:13 | 286:8 | 303:2 304:1,5 | dot 279:25 |
| discussions | division 1:3,7 | 304:11 | 286:6 293:22 |
| 20:25 21:23 | 17:4 19:18 | division's 21:3 | doto 175:17 |
| 33:1 38:23 | 20:5 21:2,9,11 | 21:16 40:15 | 183:14 184:2 |
| 39:12,14 | 21:14,16,17,22 | 89:13 113:8 | dots 284:8 |
| 188:14,15 | 22:2,15,18 23:3 | 240:3 264:22 | 285:5 293:8 |
| dismiss 21:4 | 23:4,5 24:9 | 266:3 | doubt 198:6 |
| 22:18 29:23 | 25:8,19 26:3 | docket 18:12 | 231:3 |
| 33:17 108:25 | 27:8,9,10,14,24 | 20:21 21:1,6,8 | dovetail 199:15 |
| 109:12 110:17 | 28:24 30:12 | 35:15 36:12 | dozen 170:7 |
| 110:18 112:15 | 35:14 38:7,11 | 40:19 41:8 | draft 107:20 |
| 115:3 120:8 | 39:17,24 40:12 | 42:11,12 76:5,6 | 112:18 |
| 176:5 178:19 | 44:5,7,9 46:2,5 | 193:17 | drafted 109:25 |
| 304:10,11 | 55:2 60:23 | document | 114:18 |
| dismissal 29:23 | 63:15 74:13 | 54:10 66:14,15 | drainage |
| dismissed 20:8 | 78:4 80:16,24 | 66:17,17 75:9 | 155:11 216:23 |
| 263:8 | 81:2,23 104:19 | 76:9 110:6 | 222:19 235:21 |
| dismisses 27:14 | 110:20 111:3 | 131:21 | 236:5,20 238:9 |
| dismissing | 111:16 112:13 | documents | 240:19,21 |
| 21:12 | 112:13,23 | 66:13 67:1 | 241:5 263:18 |
| display 14:5 | 113:23 117:16 | 83:9 90:9 | 264:2 266:24 |
| 221:5 250:15 | 121:7,21 122:3 | doing 25:7 37:3 | 272:14,23 |
| disposables | 134:22 140:17 | 82:5 87:20 | 273:14,25 |
| 255:13 | 172:24 173:16 | 119:13 129:6 | 276:16 281:13 |
| dispute 26:23 | 175:24 178:19 | 140:21 142:21 | 281:15,19,22 |
| distance 207:2 | 179:4,24 | 157:12 174:5 | 282:1 |
| 223:2,9,10 | 180:14 184:4 | 191:15,25 | draining 241:3 |
| 226:3,7,20 | 204:9 205:15 | 270:14 | drastically |
| 227:18 266:14 | 209:9 216:15 | dollars 232:23 | 273:21 |
| 276:2 277:10 | 219:7,14 220:1 | dolly 138:5 | draw 276:9 |
| disturbance | 228:25 235:4 | 227:3,8,11 | 277:18 |
| 128:7 185:24 | 239:24 240:9 | 277:7,23 290:7 | drawn 222:19 |
| 186:6 | 240:12 265:3 | door 28:17 | 242:17 296:22 |
|  | 268:25 270:21 | 265:15,16 |  |

Page 26
[drew - earthstone]

| $\begin{aligned} & \text { drew } 238: 18 \\ & \text { drill } 78: 7,8 \end{aligned}$ | $\begin{aligned} & 146: 25158: 5 \\ & 160: 22 \text { 173:20 } \end{aligned}$ | $\begin{array}{cc} \text { drills } & 251: 22 \\ \text { drive } & 4: 57: 5 \end{array}$ | $\begin{array}{cc} 273: 8 & 286: 6 \\ \text { earliest } & 150: 8 \end{array}$ |
| :---: | :---: | :---: | :---: |
| 80:5 100:12,13 | 190:23 193:17 | drop 24:15 | early 199:15,23 |
| 101:25 104:7 | 214:4 218:13 | 39:2 | earnest 7:3 |
| 104:20 106:9 | 226:19 235:1 | drove 274:25 | 30:17 |
| 114:8,9 118:25 | 250:11,12,16 | due 19:12 | earthstone 6:12 |
| 119:25 122:2 | 250:18 251:4 | 20:14,17 185:7 | 8:2 15:18 |
| 127:3 136:7,11 | 251:11,18 | 198:17 257:11 | 72:12,15 78:10 |
| 138:20,23 | 252:14 260:21 | duly 96:5,10,15 | 79:5,22 80:10 |
| 139:12,15 | 261:11 270:20 | 96:20,25 97:8 | 80:12 81:5,9,22 |
| 142:1,7,25 | 274:14 290:14 | 306:5 | 82:23 100:24 |
| 143:3,15,19 | 291:23 296:12 | dvd 252:16 | 101:6,21 |
| 144:5 149:6 | 296:13 | dx 10:10 11:2 | 103:17 105:14 |
| 152:25 158:24 | drilling 14:22 | e | 110:18 111:6 |
| 159:12 161:5 | 14:23 81:15 | e 3:1,1 4:1,1 5:1 | 112:9,11 113:3 |
| 161:11 176:14 | 100:8,10 | $5: 16: 1,17: 1,1$ | 113:6 115:8 |
| 178:5 187:14 | 106:22 119:12 | 5.16.1,1 7.1,1 | 116:24 118:23 |
| 188:1 191:10 | 119:23 121:6 | 10:1 11:1 12 | 119:6,18 120:1 |
| 194:1,21 221:6 | 138:19 142:9 | $13 \cdot 114 \cdot 115$ | 120:14,24 |
| 228:22 232:8 | 142:14 159:3 | 15:17 16:1,2,2 | 121:20 122:2 |
| 232:22 240:2 | 159:15 160:1 | $16: 2,2 \quad 17:$ | 127:24 133:9 |
| 240:20,25 | 176:19 187:21 | 94:13 172:19 | 137:15 138:18 |
| 241:4 244:15 | 188:11 193:24 | $172: 19181: 15$ | 140:20 141:15 |
| 252:10 254:23 | 199:12 220:16 | $181: 17,18,19$ | 142:7 150:10 |
| 256:4 258:24 | 232:24 233:3 | 181.17,18, | 151:11 154:17 |
| 259:4,14 | 233:20 249:10 |  | 158:23 159:3,8 |
| 274:23 275:25 | 249:13,16 |  | 159:11,16,25 |
| 276:15,15 | 252:6,19 | $\begin{aligned} & 240: 21, \\ & 268: 20 \end{aligned}$ | 162:12 163:1,6 |
| drilled 99:24 | 253:20 254:3 | earlier 28:3 | 163:11 164:2 |
| 100:1 101:7,18 | 254:13,16,19 | 59:23 117:22 | 165:13 168:24 |
| 101:23 135:20 | 256:5 258:15 | $117: 23 \quad 120: 7$ | 172:4,14,24 |
| 135:21,23,25 | 258:15 259:3 | $149: 21,21,22$ | 173:18,24 |
| 137:3,11,11,12 | 259:15,16 | 150:2 175:22 | 176:24 177:22 |
| 137:16 139:1 | 260:9,21 261:1 | 176:4 177:7 | 178:2 179:18 |
| 143:7,11 |  | 209:9 242:1 | 180:21 183:13 |

Page 27
[earthstone - elect]

| $184: 5,7188: 9$ | $109: 12111: 15$ | $138: 10,11$ | eddy $260: 19$ <br> edition $209: 22$ <br> 190:18 $191: 5$ |
| :--- | :---: | :--- | :--- |
| $192: 5,20$ | $111: 21120: 7$ | $142: 6,7144: 1,7$ |  |
| $193: 14194: 2$ | $123: 21122: 10$ | $144: 7,23145: 2$ | $145: 14147: 9$ |
| education |  |  |  |
| 195:4,16 $197: 3$ | $125: 24131: 25$ | $149: 13,13$ | educational |
| $199: 19,21,22$ | $132: 3133: 23$ | $157: 15,19,20$ | $269: 1$ |
| $201: 16203: 4$ | $144: 18145: 16$ | $158: 16,18$ | effect $141: 11$ |
| $204: 8205: 25$ | $146: 1,11$ | $163: 2174: 16$ | $206: 24236: 9$ |
| $207: 20213: 18$ | $149: 18157: 17$ | $174: 23,24,24$ | $238: 24239: 11$ |
| $215: 7,22$ | $158: 3163: 23$ | $174: 24182: 25$ | $242: 10246: 20$ |
| $218: 18219: 8$ | $168: 20174: 19$ | $184: 20185: 9$ | effective $50: 23$ |
| $219: 10,13$ | $176: 5178: 18$ | $188: 3,3192: 3,6$ | $185: 11$ |
| $222: 6,7,18$ | $181: 21182: 5,7$ | $195: 11,18$ | effectively |
| $223: 7229: 2$ | $184: 10185: 17$ | $201: 7219: 20$ | $261: 1$ |
| $230: 4231: 11$ | $197: 22199: 11$ | $220: 19221: 18$ | effects $235: 18$ |
| $234: 6243: 2$ | $208: 6228: 11$ | $226: 2227: 18$ | $247: 21$ |
| $247: 3,4,12$ | $228: 22232: 8$ | $228: 12,12$ | efficient $81: 19$ |
| $248: 16249: 10$ | $232: 18234: 20$ | $229: 16,16,19$ | $185: 10$ |
| $249: 13,19$ | $246: 23256: 3$ | $229: 19230: 4$ | effort $236: 25$ |
| $250: 2,9,17,21$ | $257: 4,18$ | $231: 14,14,21$ | egg $238: 10,11$ |
| $251: 6,8,21$ | $258: 11,15,15$ | $238: 19,24$ | $272: 9$ |
| $253: 8,15$ | $265: 6275: 11$ | $239: 1,2,7,10,14$ | eight $89: 8$ |
| $256: 15257: 8$ | $288: 15$ | $240: 6242: 11$ | $224: 16$ |
| $258: 8,14$ | ease $66: 870: 16$ | $242: 14,15$ | either $33: 16$ |
| $259: 13261: 14$ | easier $172: 8$ | $244: 15252: 8$ | $39: 5,550: 5$ |
| $262: 22263: 19$ | $252: 18$ | $252: 11275: 13$ | $99: 6116: 24$ |
| $264: 7,12$ | east $57: 15,21$ | $275: 13277: 11$ | $121: 6147: 14$ |
| $266: 17,21$ | $57: 2360: 6,14$ | $294: 2$ | $166: 23197: 11$ |
| $283: 14293: 15$ | $69: 380: 13,13$ | echo $181: 17,18$ | $204: 8225: 9$ |
| $300: 4$ | $80: 14101: 10$ | $181: 19205: 2$ | $227: 7,17$ |
| earthstone's | $101: 15102: 1,2$ | economic | $252: 10270: 22$ |
| $15: 1680: 3$ | $116: 25117: 13$ | $257: 15258: 24$ | eject $198: 18$ |
| $81: 1482: 21,22$ | $117: 15126: 9$ | economical | elect $106: 3$ |
| $87: 14105: 18$ | $126: 22131: 3$ | $81: 20191: 12$ | $197: 6198: 18$ |
| $106: 15108: 25$ | $135: 18137: 5$ | $253: 16$ |  |
|  |  |  |  |

Page 28
[elected - eur]

| elected 197:7 | energy 1:2 3:19 | enjoy 305:12 | ero 244:23 |
| :---: | :---: | :---: | :---: |
| 198:1,21 | 3:20 4:10 8:15 | ensure 81:18 | error 296:25 |
| election 198:23 | 17:25 37:1 | enter 19:4 | es 10:10 11:2 |
| eleven 287:7,8 | 65:21,21 73:13 | 193:3 250:2 | 306:4 |
| 293:4,6 | 101:4,4 104:5 | entered 19:3 | especially |
| eliciting 153:18 | 105:15 107:15 | 32:5 34:4 | 142:6 227:19 |
| eliminate 38:16 | 107:15 127:1 | entering 251:9 | esps 257:12 |
| elizabeth 7:19 | 186:19 218:18 | entire 68:14 | esquire 3:3,7 |
| email 15:17 | 249:11,13 | 101:14 200:25 | 3:14,21 4:3,11 |
| 46:10 76:4 | 250:2 251:6 | 229:22 231:25 | 4:17 5:3,8,9,10 |
| 104:17 117:23 | engage 38:3 | 232:7 237:21 | 5:16 6:3,7,13 |
| 118:8,13 120:9 | engineer 82:8 | 238:18 279:10 | 6:19 7:3,7,13 |
| 120:11,15,20 | 94:14 95:7 | entitled 198:17 | 7:19 8:4,10,16 |
| 121:2 122:5,7 | 128:5,11 206:2 | entity 115:4 | 9:3 |
| 122:11 130:19 | 208:4,5,7 | entries 17:17 | essentially |
| 133:23 149:24 | 210:15 211:8 | 18:24 61:10 | 107:20 220:7 |
| 175:25 176:6 | 217:1 243:1 | 64:22 72:21 | 222:15 224:16 |
| 176:12 177:8 | 249:5,7 268:24 | 73:17 | 224:21 |
| 177:18 180:17 | 269:3,3,5,11 | entry 34:9,13 | estimate 216:21 |
| 180:21 181:2 | engineer's | 37:6,10 | 260:2 272:22 |
| 200:1,7,10 | 211:14 212:4 | $\operatorname{eog~7:2~19:1,5~}$ | estimated |
| 230:8 303:14 | engineering | 30:18 31:23 | 225:3 245:2,8 |
| emergency | 91:10 210:8,8 | 32:25 33:4 | 272:15,25 |
| 20:14 | 210:10,13 | 34:1 36:1 37:8 | 273:18 |
| employed | 216:11,25 | 39:22 65:12,13 | estimates |
| 306:11,14 | 242:25 246:19 | eogresources... | 259:25 |
| 307:8,11 | 249:21 263:8 | 7:11 | et 28:8 65:21 |
| employee | 263:10 272:13 | equal 192:15 | 67:17 68:10 |
| 104:18 306:13 | engineers | 225:2 234:3 | 136:15 175:19 |
| 307:10 | 211:12 215:13 | 256:23 288:16 | 176:15,15 |
| employment | 215:14 237:1 | equates 254:19 | 250:14 260:12 |
| 249:16 269:2 | 284:20 | equipment | eur 224:24 |
| encompassed | enhanced | 257:9 | 225:3 227:12 |
| 152:3 201:8 | 224:8 | ernie 19:2 | 244:24 245:14 |
|  |  |  | 245:17 246:16 |

Page 29
[eur - examiner]

| 246:20 247:6 | 269:25 271:14 | 189:14 204:3 | 36:14,18,21 |
| :---: | :---: | :---: | :---: |
| 278:24 284:20 | 272:2 289:3 | 205:10 210:5 | 37:2,9 38:1,18 |
| 284:21 | evidenced | 216:3 217:23 | 39:7,19,25 |
| eurs 284:17 | 279:14 288:22 | 235:14 243:15 | 40:20,24 41:10 |
| evaluate 237:3 | 290:17 296:21 | 246:12 249:1 | 41:16,25 42:5 |
| evaluation | evident 143:18 | 259:23 272:4 | 42:16,24 43:16 |
| 14:25 211:23 | 197:1 | 281:4 294:19 | 43:23 44:13,14 |
| 211:25 256:12 | evidentiary | 294:23 296:9 | 45:4,6,10 47:23 |
| evd $12: 2,8,20$ | 115:18 299:22 | examine 130:15 | 48:3,14,19,23 |
| 13:2,11 14:2 | 300:7 | 131:15 156:10 | 48:25 49:10,17 |
| 15:2,11,20 | exact 80:10 | 182:14 208:8 | 49:18,20 51:3 |
| eventually | 93:15 110:12 | 208:11 217:13 | 51:13,17,20,22 |
| 81:20 160:22 | 149:20 211:20 | 243:1 | 52:5,11,20 |
| 220:2 | 220:7 224:16 | examined 96:7 | 53:15,19,23 |
| everybody | 228:3 239:17 | 96:12,17,22 | 54:9,12,16 55:3 |
| 29:15 70:7 | exactly 150:5 | 97:2,10 175:16 | 55:23 56:3,6,9 |
| 122:16 | 186:1 189:3 | examiner 2:5 | 56:19,22 57:3,6 |
| evidence 59:2,4 | 191:15,25 | 9:11 17:2,6,9 | 58:23 59:1 |
| 74:17,18 75:9 | 214:6,8,16 | 17:12,14,20,21 | 60:20,25 61:4,7 |
| 85:11 86:21,25 | 226:17 232:22 | 17:23 18:1,4,6 | 61:13,16,18 |
| 87:2 88:2,3 | 242:19 247:22 | 18:10,13,16,19 | 62:10,12,15,19 |
| 90:25 91:3 | exaggerated | 19:6,11,21 20:1 | 62:24 63:7,12 |
| 92:1,4 93:2,4 | 231:15 | 21:18 22:3,9 | 63:18,23 64:7 |
| 94:2,5 107:6 | examination | 23:8,15,21,23 | 64:10,14,20,25 |
| 114:5 116:10 | 39:22 98:10 | 24:3,10,14,17 | 65:4,8,12,16,23 |
| 161:15 164:8,9 | 105:4 108:22 | 24:22 25:24 | 66:3,7,11,20,25 |
| 169:22 170:2 | 116:14,21 | 26:5,11 27:17 | 67:3,12 69:17 |
| 170:21 178:24 | 117:7 126:25 | 27:23 28:10 | 71:16 72:14,16 |
| 180:4 181:22 | 132:19,22 | 29:4,20 30:17 | 72:19,20,22,24 |
| 182:8 202:3 | 134:6 135:9 | 30:21,25 31:7 | 73:2,5,6,9,15 |
| 207:21 209:11 | 146:18 153:4 | 31:10,15,25 | 74:14,19 75:18 |
| 209:14 212:23 | 156:14 157:1,5 | 32:7,11,14,16 | 75:21,25 76:7 |
| 213:2 217:11 | 164:22 165:24 | 32:21 33:12,18 | 76:14,17,21,22 |
| 217:17 243:20 | 168:8 170:5,6 | 33:21 34:12,19 | 78:13,15,18,24 |
| 243:24 265:17 | 173:6 189:12 | 35:3,16,23 36:3 | 79:8,15,19,21 |

Page 30
[examiner - exclusion]

| 81:25 82:12 | 139:18,21 | 208:1,14,15 | 302:5,8,14,23 |
| :---: | :---: | :---: | :---: |
| 83:5,8,14,18 | 140:3,7 144:13 | 209:18,25 | 303:4,6,12,17 |
| 84:6,13,19,25 | 144:15 145:20 | 210:17,20,25 | 304:13,20,25 |
| 85:7,12 86:3,14 | 146:7,17 | 211:13 212:3,9 | 305:3,4,7,8,11 |
| 86:18 87:6,18 | 147:17 148:4 | 212:21 213:15 | examiners 36:6 |
| 88:1,11,15,24 | 150:20 151:1,5 | 214:12,23 | 79:8 |
| 89:10,18,21 | 151:8,23 152:9 | 216:19 217:3 | example 14:15 |
| 90:3,5,11,19,23 | 152:13,16 | 235:10 242:22 | 128:2 144:4 |
| 91:6,11,13,18 | 153:3,16 | 243:8 244:2 | 151:9 211:15 |
| 91:24 92:8,19 | 154:24 155:13 | 245:24 246:5,9 | 219:19 226:13 |
| 92:23 93:1,13 | 156:4,21,23,24 | 248:5,11,15,22 | 227:23 286:22 |
| 93:17,24 94:9 | 157:3 160:7,10 | 249:19,22,23 | examples |
| 94:15,18 95:4,9 | 163:9,15,17 | 259:21 261:22 | 226:22 |
| 95:14,16,18,24 | 164:6,13,15,21 | 261:23 262:3,6 | excellent 66:4 |
| 97:3,11,20 98:1 | 165:22 166:2,7 | 262:9,11,13,17 | 299:4 |
| 98:6,23 99:3,11 | 166:11,22 | 263:4,11,25 | except 42:10 |
| 102:5,7,11,13 | 167:24,25 | 264:16 266:22 | 300:8 |
| 102:18,20 | 169:10 170:4,9 | 267:11,20 | exception |
| 103:7,10 104:9 | 170:12,17,20 | 268:6,10,12,16 | 171:13 |
| 104:11,21 | 170:25 171:1,4 | 268:21,23 | exchange |
| 105:2 107:5 | 171:13,16,20 | 269:6,10,20 | 110:25 175:25 |
| 108:15,17,20 | 172:1,11,14,17 | 270:4,9,25 | exchanged 33:3 |
| 109:2 110:2 | 172:20 173:1,4 | 271:1,6,12 | excise 270:24 |
| 112:3,4 113:9 | 178:13,22 | 280:9,10,16,21 | exclude 75:14 |
| 113:12 114:11 | 179:6,8,13,16 | 280:23 281:2 | 85:14 107:24 |
| 115:11,24,25 | 180:3,24 181:1 | 283:20,24 | 113:20 115:1 |
| 116:16 117:4 | 181:4,16,19 | 292:19,20,23 | 174:15 |
| 118:5 122:18 | 182:10 186:12 | 294:18,22 | excluded |
| 122:23 128:15 | 188:22 189:3,7 | 296:6 297:24 | 108:11 113:2,7 |
| 128:16 130:4,8 | 189:11,13 | 297:25 298:12 | 116:10 195:11 |
| 130:12 131:13 | 194:9,13 | 298:21 299:3 | 195:22 |
| 132:16,17,21 | 200:15,16 | 299:20 300:2,6 | excluding |
| 133:20 134:4,5 | 203:23 204:14 | 300:21,23 | 108:2 |
| 134:8,13,15,18 | 204:18,23 | 301:6,10,12,15 | exclusion |
| 134:25 135:6 | 205:5 207:24 | 301:19,25 | 109:19 131:2 |

Page 31
[excuse - exhibit]

| excuse 20:21 | 69:14,15 70:12 | $130: 5,11,24$ | $181: 9,11,15,21$ |
| :--- | :--- | :--- | :--- |
| $79: 2582: 6$ | $70: 2571: 7$ | $131: 25133: 6$ | $181: 21182: 3,5$ |
| $117: 22121: 12$ | $75: 1082: 6,6,18$ | $134: 1,21$ | $182: 7,14,18$ |
| $123: 23127: 24$ | $82: 2483: 2,11$ | $135: 13136: 17$ | $183: 1,3,11,17$ |
| $131: 24145: 2$ | $84: 1,1,4,8,9,10$ | $143: 21,24$ | $184: 9,10,11$ |
| $147: 20148: 15$ | $84: 12,1785: 2$ | $144: 12145: 23$ | $186: 15187: 3$ |
| $150: 11174: 21$ | $86: 11,12,12,13$ | $146: 6,10,22$ | $196: 7197: 9$ |
| $175: 8234: 19$ | $86: 13,22,22,22$ | $147: 15,18,20$ | $198: 4,7205: 19$ |
| 266:2 287:17 | $86: 23,23,23,24$ | $147: 22,22$ | $205: 19210: 19$ |
| excused 262:7 | $86: 24,24,25$ | $148: 11,15,15$ | $211: 20,23$ |
| executing | $88: 5,20,20,22$ | $148: 16,19,20$ | $214: 9216: 23$ |
| $254: 20$ | $88: 2589: 1,2,4$ | $148: 23149: 8,9$ | $218: 9,10,23,24$ |
| exhibit $12: 4,6$ | $89: 4,8,16,24,24$ | $149: 9,15$ | $219: 3,19220: 5$ |
| $12: 10,12,13,14$ | $90: 6,6,12,14,14$ | $150: 19151: 11$ | $220: 6,12,12$ |
| $12: 16,17,18,22$ | $90: 15,1891: 1,1$ | $151: 12152: 2,3$ | $221: 2,3222: 11$ |
| $12: 23,24,25$ | $91: 2,4,20,22,22$ | $152: 4,10,11$ | $222: 12,13,21$ |
| $13: 4,5,6,7,8,9$ | $92: 3,393: 3,3,7$ | $153: 18154: 11$ | $222: 22,23$ |
| $13: 12,13,14,15$ | $93: 7,8,1894: 3$ | $154: 19155: 1$ | $224: 11,13,14$ |
| $13: 16,17,18,19$ | $94: 3,497: 22$ | $155: 15156: 1,5$ | $226: 12,14$ |
| $13: 20,21,23$ | $98: 3103: 13,13$ | $156: 15,16$ | $227: 22,23$ |
| $14: 3,5,6,10,13$ | $104: 12,12,22$ | $157: 8,24158: 2$ | $228: 1230: 11$ |
| $14: 15,17,18,19$ | $104: 24105: 7$ | $161: 20165: 7,8$ | $230: 23231: 19$ |
| $14: 21,22,23,25$ | $105: 19106: 25$ | $165: 13166: 5,8$ | $232: 3238: 18$ |
| $15: 3,5,6,7,8,13$ | $107: 3,9108: 16$ | $166: 9,15$ | $241: 15242: 19$ |
| $15: 14,17,21$ | $108: 16109: 23$ | $168: 10,11,13$ | $243: 23,23$ |
| $16: 4,643: 9$ | $110: 1,7113: 20$ | $168: 19169: 6$ | $244: 8,21246: 1$ |
| $44: 2452: 9$ | $114: 14115: 15$ | $169: 12,19,21$ | $246: 7,15249: 4$ |
| $54: 2,3,455: 19$ | $116: 7,10$ | $170: 1,24,24$ | $250: 7252: 2,5$ |
| $55: 1958: 5,6,14$ | $117: 20119: 2$ | $171: 14174: 19$ | $254: 2,7,8256: 1$ |
| $58: 21,2159: 3,3$ | $120: 6122: 6,11$ | $174: 20175: 3,9$ | $256: 9,10258: 2$ |
| $66: 2467: 13,14$ | $122: 14,14$ | $176: 4,9177: 7$ | $258: 13267: 6$ |
| $67: 15,18,20,25$ | $123: 3,5,10,14$ | $177: 20178: 15$ | $268: 1,1,3269: 7$ |
| $68: 11,19,20,24$ | $123: 20,23,24$ | $178: 17179: 11$ | $269: 13,15,17$ |
| $68: 2569: 9,13$ | $125: 24126: 3,6$ | $179: 21180: 2$ | $269: 23,24$ |
| $69: 13,13,14,14$ | $126: 14129: 17$ | $180: 15,16,25$ | $270: 2,5,10,11$ |
|  |  |  |  |
|  |  |  |  |

Page 32
[exhibit - explained]

| 270:13,16 | 124:12,14 | 263:21 264:14 | 253:16 254:14 |
| :---: | :---: | :---: | :---: |
| 271:10,13,14 | 126:21 131:24 | 266:9,16 267:3 | 290:14 |
| 271:22 272:1,8 | 134:19 135:11 | 267:15,18,22 | expecting |
| 275:9,15,19 | 144:10,25 | 271:19 273:10 | 298:13 |
| 277:1,4,17 | 145:17 146:11 | 276:19,22 | expects 259:13 |
| 278:13,14,23 | 148:18 151:21 | 281:10 283:9 | expedite 302:3 |
| 281:16 282:24 | 153:9,24 156:7 | 299:16 300:8 | expedited |
| 284:6 285:15 | 156:10 161:23 | existing 136:13 | 303:4,9 |
| 288:8 289:7 | 161:24 162:22 | 157:23 185:7 | expenses 259:9 |
| 290:16,25 | 164:25 165:9 | 185:12 186:9 | 259:12 |
| 291:11 293:2 | 167:22 170:23 | 193:14,18 | expensive |
| 294:25 296:22 | 175:20 179:3 | 214:17 223:10 | 257:6 259:13 |
| 297:2,5,7,21 | 180:16 183:19 | 223:17 244:14 | experience |
| 298:2,14,24,24 | 188:24 189:5 | exists 181:2,2 | 97:23 140:25 |
| 298:24,25 | 193:13 196:6 | expand 190:24 | 172:21 209:1,6 |
| exhibits 49:6 | 196:12 198:12 | expanded | 216:9 249:5 |
| 49:16,23 51:7,8 | 200:21,22 | 202:19 | 265:14 270:19 |
| 51:10,14 52:7,8 | 203:19 205:19 | expansion 80:4 | 304:18,23 |
| 53:22 58:1,3,11 | 205:23 206:5,9 | 80:7,9 99:20 | expert 97:24,24 |
| 58:18 59:2 | 206:13 207:16 | 108:4 109:19 | 98:4,9 134:24 |
| 60:16 66:10,16 | 207:22 208:4 | 111:2 113:17 | 135:8 155:21 |
| 69:10 70:9 | 208:12,17,18 | 174:11 190:17 | 172:23,25 |
| 71:9,24 74:2,17 | 208:19,22 | 195:21 | 173:5 207:20 |
| 75:5,14 82:10 | 210:3,22 211:5 | expect 55:25 | 213:5 249:20 |
| 82:15,17,21 | 211:17 212:5,7 | 112:12 151:18 | 269:4 |
| 83:22,22,23 | 212:8 213:12 | 182:2 216:10 | expert's 212:23 |
| 84:7,14,16,17 | 214:24 215:1 | 258:20 275:25 | 213:13 |
| 85:10,15 86:4,7 | 217:9,20,23 | 285:21 286:1 | expertise 213:7 |
| 86:15,20 87:1 | 218:6 222:5 | expectation | 214:14 216:1 |
| 87:14,16,22 | 226:18 230:9 | 267:2 | 217:7,19 |
| 88:8,18 91:9 | 231:23 235:16 | expectations | explain 25:22 |
| 92:18 93:11 | 236:13 242:24 | 254:20 | 61:21 91:14 |
| 94:1 100:25 | 243:3,17,20 | expected 71:24 | 218:9 224:1 |
| 115:12,22 | 250:8 262:21 | 151:20 228:13 | explained |
| 117:21 123:3 | 262:23 263:8 | 247:6,15 | 213:16 223:20 |

Page 33
[explanation - feet]

| explanation | 186:9 | faith 77:9,18 | favor 161:10 |
| :---: | :---: | :---: | :---: |
| 242:6 | facility 256:13 | 80:19,23 | 188:16 243:16 |
| explicit 195:15 | fact $22: 12$ | 180:12 | 257:2,4,8 |
| 200:2 | 39:11 151:9,12 | fall 28:7 293:25 | fe $2: 73: 6,10,17$ |
| exploratory | 180:15 182:23 | falls 267:13 | 3:24 4:14 5:6 |
| 102:23,24 | 193:8 237:7 | familiar 23:10 | 5:13,19 6:6,10 |
| explore 209:14 | 242:5 257:11 | 102:15 165:10 | 6:22 7:6,10,16 |
| explored | 258:22 274:10 | 184:11 192:25 | 7:22 8:7,19 |
| 216:16 | 277:18 279:14 | 252:22 | 31:21 36:24 |
| exponentially | 290:17 300:3 | fantastic 31:15 | 61:4 64:25 |
| 224:25 234:15 | 300:17,25 | far 45:14,15,17 | 73:12 |
| expressed | factor 77:21,24 | 45:18 48:4,13 | feasible 193:7 |
| 174:15 | 80:18,20,22 | 49:16 50:22 | february 87:9 |
| expressly | 81:12 245:2,9 | 52:1,2,4,17 | 195:3 |
| 187:24 | 272:20 273:19 | 59:25 60:7 | federal 68:1 |
| ext 118:10 | 273:20 283:7 | 70:7,18,20 71:8 | 102:24 255:7 |
| extend 79:24 | factored 273:10 | 78:22 94:21 | feel 29:5 30:12 |
| extended 143:4 | factors 77:4,16 | 100:1 129:4 | 41:173:22 |
| extension 259:6 | 81:1 237:17,19 | 142:13 154:10 | 76:25 79:17 |
| extent 44:6 | 238:7 242:25 | 154:13 182:21 | 116:7 156:11 |
| 46:13 209:13 | 262:24 272:14 | 187:19 195:7 | 171:10 193:21 |
| 225:19 264:7 | 272:17,18 | 226:10 230:2 | 206:11 217:6 |
| exterior 100:15 | 273:1 281:20 | 252:12,18 | 217:15 226:10 |
| extra 230:9 | 286:3 292:17 | 253:16,22 | 233:17,19,21 |
| extremely | 295:19 | 254:13,16,20 | 233:24 234:16 |
| 198:6 | fair 105:25 | 255:3,14,22 | 283:17 |
| eye 142:20,22 | 116:4 133:17 | 260:23 261:20 | feels 208:18 |
| 143:5 | 140:18 142:17 | 280:3 | 234:6 |
| f | 156:5 192:15 | farther 277:21 | feet 145:10,12 |
| f 43:9 44:24 | 274:4 275:17 | 278:5 291:12 | 149:2 152:21 |
| 110:10 172:19 | 283:19 301:9 | fashion 114:21 | 153:12 165:5 |
| face $257: 24$ | 301:19,20 | fast 237:25 | 167:15 219:2 |
| $290: 23$ | fairly $22: 21$ | faster 261:1 | 220:23 221:1 |
| facilities 136:3 | 108:7 143:6 | fault 304:21 | 221:10,14 |
| 136:13 185:4 | 232:13 |  | 223:13,16 |

Page 34
[feet - first]

| $230: 17231: 16$ | $34: 2535: 13,20$ | files $110: 13$ | fine $41: 8$ |
| :---: | :--- | :--- | :--- |
| $231: 19232: 8,9$ | $39: 1641: 12$ | $174: 14179: 23$ | $122: 21154: 13$ |
| $232: 12239: 21$ | $43: 2549: 19$ | filing $22: 1$ | $170: 16259: 11$ |
| $239: 25240: 5$ | $53: 1155: 1,25$ | $44: 16,21,24$ | $302: 11303: 10$ |
| $289: 9,10290: 3$ | $62: 863: 8,10$ | $45: 1163: 12$ | finger $180: 8$ |
| $290: 7,8,18,20$ | $64: 183: 1$ | $66: 8,879: 22$ | finish $181: 14$ |
| 291:6,7,18 | $87: 15110: 11$ | $84: 15,21,22$ | finished $20: 10$ |
| feldewert $4: 11$ | $111: 15115: 3$ | $85: 588: 12$ | $72: 3112: 5$ |
| $5: 86: 197: 13$ | $115: 22178: 21$ | $90: 7123: 2$ | $116: 17243: 15$ |
| $8: 1631: 20,21$ | filed $17: 1720: 4$ | $262: 23$ | finishing $24: 15$ |
| $33: 23,2534: 17$ | $26: 2427: 1,7$ | filings $44: 8,17$ | firm $5: 176: 4$ |
| $34: 2035: 4,10$ | $35: 2436: 1$ | $65: 2566: 1$ | $7: 4273: 17$ |
| $36: 23,2437: 4$ | $37: 14,1639: 8$ | final $54: 22$ | $278: 10$ |
| $38: 13,20,21$ | $41: 743: 18$ | $81: 1299: 21$ | first $13: 21$ |
| $39: 8,1042: 1,3$ | $44: 1,1649: 7,8$ | $133: 21167: 6$ | $15: 2117: 10$ |
| $42: 9,10,21,22$ | $49: 14,1650: 4,4$ | $242: 9248: 6$ | $43: 246: 7$ |
| $43: 1,16,21,24$ | $51: 8,1452: 8$ | finalize $33: 15$ | $66: 1367: 9$ |
| $44: 2345: 21,25$ | $53: 354: 1,7,10$ | finally $77: 25$ | $69: 173: 20$ |
| $46: 1747: 2,15$ | $66: 1472: 17$ | $199: 25267: 11$ | $78: 2581: 10$ |
| $47: 1748: 13,16$ | $74: 1075: 12$ | financially | $82: 5,1896: 5,10$ |
| $48: 1856: 11,14$ | $76: 284: 7$ | $306: 15307: 11$ | $96: 15,20,25$ |
| $56: 2557: 5$ | $85: 1686: 8$ | find $38: 740: 18$ | $97: 8,17,17,20$ |
| $58: 24,2573: 11$ | $87: 8,9,11,12,14$ | $67: 1982: 25$ | $100: 11106: 2$ |
| $73: 12$ | $88: 13,1989: 15$ | $110: 6,8,10$ | $107: 12117: 10$ |
| ferocity $142: 4$ | $89: 1692: 22$ | $114: 6124: 11$ | $118: 21126: 2,6$ |
| field $141: 1$ | $99: 20112: 21$ | $132: 7149: 24$ | $126: 17138: 2$ |
| $209: 6213: 6,13$ | $112: 24,25$ | $162: 23181: 5$ | $138: 19,20,23$ |
| $215: 5280: 13$ | $115: 13,13$ | $203: 15209: 21$ | $139: 1,12,16$ |
| fifteen $74: 6$ | $116: 8123: 3$ | $209: 24230: 8$ | $140: 1143: 25$ |
| fight $199: 10$ | $154: 23167: 21$ | $269: 7299: 23$ | $148: 24,25$ |
| figure $40: 7$ | $178: 19195: 3$ | finding $29: 13$ | $149: 6,10,18,22$ |
| figures $175: 19$ | $196: 6264: 14$ | $71: 24$ | $150: 9,10,11$ |
| 196:19 $198: 6$ | $266: 9267: 18$ | findings $300: 16$ | $152: 10,19,25$ |
| file $21: 2222: 9$ | $301: 18303: 2$ | $300: 25$ | $153: 14154: 5$ |
| $25: 334: 16,18$ |  |  | $154: 10155: 6$ |
|  |  |  |  |

Page 35
[first - four]

| $155: 11,11$ | flipped $296: 24$ | footage $240: 16$ | formatting |
| :---: | :---: | :--- | :--- |
| $160: 21161: 2,5$ | flow $186: 7$ | force $68: 2$ | $15: 22152: 11$ |
| $161: 11,18$ | fluid $224: 3,23$ | $69: 25100: 4$ | formed $100: 23$ |
| $162: 2,4167: 6$ | $237: 25238: 1$ | $127: 17$ | $114: 24208: 12$ |
| $167: 19173: 13$ | $263: 23281: 21$ | forced $60: 8$ | former $181: 23$ |
| $174: 20187: 1,4$ | fly $290: 22$ | $68: 1140: 12$ | formula $132: 10$ |
| $194: 19196: 8$ | focus $201: 10$ | foregoing $306: 3$ | forth $50: 24$ |
| $204: 20218: 16$ | $284: 3$ | $306: 4307: 4$ | $77: 4,885: 20$ |
| $218: 20219: 1$ | focused $288: 9$ | forest $137: 3$ | $100: 25208: 24$ |
| $220: 17,18$ | follow $21: 14$ | forget $167: 5$ | $232: 24233: 16$ |
| $221: 9,22$ | $82: 10116: 19$ | forgive $146: 20$ | $264: 23265: 8$ |
| $234: 21238: 1$ | $153: 6294: 19$ | forgot $130: 20$ | $265: 16,17$ |
| $239: 20250: 7$ | following $49: 8$ | $164: 20299: 25$ | forum $172: 11$ |
| $258: 17259: 16$ | $49: 1150: 6$ | forhan $53: 20$ | forward $20: 23$ |
| $259: 25262: 20$ | $73: 24255: 3$ | form $75: 9$ | $33: 1662: 23$ |
| $272: 6277: 16$ | follows $74: 5$ | $267: 18$ | $64: 565: 22$ |
| $282: 21283: 8$ | $96: 7,12,17,22$ | formal $21: 11$ | $99: 10104: 15$ |
| $285: 7,9,17$ | $97: 2,10$ | $21: 15,1922: 1$ | $162: 12175: 15$ |
| $287: 4291: 5$ | food $278: 21$ | $25: 2230: 5,8$ | $177: 15,16$ |
| $295: 3300: 11$ | foot $138: 3$ | $31: 11115: 18$ | $214: 5$ |
| firstly $183: 16$ | $141: 16,17$ | formality $74: 15$ | found $83: 21,22$ |
| fit $27: 2279: 9$ | $220: 19221: 9$ | formation $42: 8$ | $165: 14173: 12$ |
| $279: 16299: 18$ | $224: 3,8,23$ | $57: 1168: 13$ | $201: 21202: 5$ |
| fits $20: 17$ | $227: 13228: 5,6$ | $81: 9,13,15$ | $203: 5225: 13$ |
| five $83: 15$ | $236: 12237: 12$ | $154: 8157: 12$ | $253: 14258: 23$ |
| $100: 11122: 19$ | $237: 24244: 23$ | $157: 14168: 12$ | $267: 15$ |
| $147: 18170: 7$ | $244: 24247: 1,2$ | $168: 18169: 6$ | foundation |
| $212: 4215: 23$ | $253: 12277: 15$ | $187: 5207: 11$ | $87: 392: 6,9$ |
| $231: 4,6237: 9$ | $277: 25278: 1,3$ | $220: 9234: 19$ | $107: 7139: 17$ |
| $248: 8269: 21$ | $278: 7,8279: 1,3$ | $234: 20,22$ | $139: 22140: 5$ |
| $269: 23284: 19$ | $279: 4,7280: 1,3$ | $235: 6247: 14$ | $154: 15208: 23$ |
| $284: 21287: 11$ | $281: 25284: 11$ | $258: 17$ | four $18: 826: 25$ |
| fix $121: 9$ | $284: 15285: 3$ | formations | $27: 1,1973: 18$ |
| flaws $48: 9$ | $290: 19294: 5$ | $81: 11225: 25$ | $74: 679: 481: 6$ |
|  | $294: 10297: 18$ |  | $98: 13,17100: 1$ |
|  |  |  |  |

Page 36
[four - go]

| 106:2 112:22 | 250:18 | geologist 12:14 | 130:13,15 |
| :---: | :---: | :---: | :---: |
| 157:17 167:5 | fulton 2:8 | 13:19 58:2 | 156:9 158:2 |
| 188:11,17 | 306:2,21 | 68:11 82:8 | 169:16 176:13 |
| 198:21 221:7 | further 81:18 | 91:8 94:13 | 177:14 179:8 |
| 256:4 | 119:10 164:22 | 95:6 128:5,11 | 200:2 209:25 |
| frack 141:13 | 168:4,8 170:25 | 134:24 146:2,5 | 213:5 217:12 |
| 142:1 | 220:21 224:18 | 155:20 204:17 | 230:7 253:11 |
| francis 7:5 | 306:12 307:9 | 205:15 207:21 | 253:11 260:2 |
| frank 43:10 | furthermore | 208:3 213:17 | 263:14 269:7 |
| frankly 208:25 | 77:20 | 214:3 215:13 | 280:19 284:19 |
| free 75:10 | future 33:7 | 219:25 242:6 | 291:19 301:13 |
| 76:25 | 87:4 188:7 | 263:19 270:16 | 303:20 |
| friday $92: 22$ | g | 272:7 275:11 | given 21:5,9 |
| 150:4,7 282:21 | g | 284:19 | 22:2,19 149:25 |
| front $70: 8,16$ | $\text { gallons } 141: 16$ | geologists | 254:10,18 |
| 86:7 93:16 | $\text { gas } 9: 273: 3$ | 231:4 | giving 160:8 |
| 111:2 117:24 | 124:1,6,17 | geology 58:11 | 243:10 |
| 118:3,18 120:9 | 125:19 126:1 | 77:9 78:1 81:3 | glasses 235:13 |
| 121:7 123:8,16 | 129:13 130:1 | 140:15 141:22 | go 21:18 27:9 |
| 132:14 160:20 | 206:17 213.18 | 142:3 145:25 | 29:1 37:15,16 |
| 162:20 165:15 | 258:17 | 214:18,18 | 44:13 46:21 |
| 182:17 186:16 | gas's 127:5,14 | 226:4 273:3 | 50:24 51:5 |
| 219:7 228:25 | gauge 284:15 | 275:23 | 61:6,19 65:5 |
| 257:17 265:11 | general 71:10 | getting 28:11 | 66:20 71:20 |
| 265:18,24 | 142:12 246:18 | 99:24 114:12 | 74:16 82:5,21 |
| 281:6,7 | erally 79:9 | 193:23 199:3 | 85:8,8 90:20 |
| fruition 22:25 | $19: 16,23$ | 223:2 237:15 | 91:4 92:12 |
| 29:16 161:8 |  | 245:15 284:6 | 93:5 95:23,24 |
| full 39:2 45:19 | generic 219 | 299:14 | 97:21 100:9 |
| 47:10 74:19 | geologic 68:13 | give 20:11 | 102:2 104:2,3 |
| 171:9 176:24 | $211: 10,21$ | 24:24 28:5 | 115:2 137:24 |
| 183:14 | $225: 24231: 2$ | 30:9 37:11 | 146:17 147:11 |
| fully 175:14 | geological | 47:18 76:24 | 147:14 158:6 |
| 176:21 201:6 | 160:15 226:5 | 82:20 102:14 | 158:17 162:2,4 |
| 234:16 250:11 |  | 104:19 122:16 | 165:20 187:12 |

Page 37
[go - great]

| $191: 17,18$ | $98: 24104: 4$ | $276: 20298: 3,8$ | $292: 21295: 23$ |
| :--- | :--- | :--- | :--- |
| $193: 25197: 10$ | $107: 6,8110: 17$ | $298: 14,15$ | $295: 24,24$ |
| $199: 25231: 23$ | $114: 4115: 14$ | $299: 7,10,23$ | $301: 20$ |
| $232: 21235: 16$ | $122: 15128: 4$ | $300: 2,3,24$ | goodness |
| $240: 25241: 4$ | $128: 10129: 18$ | $303: 13$ | $279: 15$ |
| $253: 13254: 6$ | $130: 12,14$ | golden $4: 6$ | goree $11: 3$ |
| $256: 10258: 7$ | $136: 21140: 8$ | good $17: 12,19$ | $14: 2088: 22$ |
| $259: 1,9,10,14$ | $142: 2143: 11$ | $17: 21,2218: 1,3$ | $89: 992: 14$ |
| $261: 13263: 11$ | $149: 5156: 5,9$ | $18: 6,2519: 6$ | $95: 6,20,2297: 4$ |
| $264: 1271: 17$ | $157: 7161: 14$ | $31: 2032: 3,7,8$ | $97: 7248: 20,20$ |
| $273: 2276: 7$ | $162: 9,14$ | $32: 1136: 17,23$ | $249: 3,20250: 2$ |
| $277: 1,2,2$ | $166: 23167: 2$ | $37: 2,1042: 21$ | $253: 24259: 10$ |
| $280: 20281: 19$ | $167: 24169: 12$ | $45: 1049: 10$ | $259: 19262: 7$ |
| $285: 24286: 3$ | $170: 18173: 10$ | $52: 353: 18,24$ | $265: 4,9$ |
| $288: 20295: 16$ | $174: 18176: 14$ | $56: 657: 759: 8$ | goree's $92: 17$ |
| $305: 3,5$ | $181: 8,9183: 2$ | $59: 961: 3,8,12$ | gotten $45: 18$ |
| goes $45: 1471: 9$ | $194: 5200: 11$ | $61: 13,1664: 24$ | $54: 24147: 4$ |
| $166: 3180: 11$ | $203: 18,19$ | $65: 11,1969: 18$ | grab $74: 3$ |
| $263: 14267: 15$ | $206: 21213: 5$ | $69: 2072: 13$ | $134: 19$ |
| going $20: 16$ | $214: 5216: 2,21$ | $73: 1,6,10,11$ | grant $121: 21$ |
| $24: 1825: 17$ | $216: 22217: 9$ | $77: 9,1878: 25$ | $122: 1$ |
| $29: 21,2230: 2$ | $217: 16,25$ | $80: 19,2390: 12$ | granted $63: 25$ |
| $31: 1634: 6$ | $218: 3,5220: 21$ | $91: 2593: 25$ | $112: 17121: 5$ |
| $35: 7,8,1440: 11$ | $222: 10226: 4$ | $94: 10,2498: 7$ | $128: 8178: 10$ |
| $42: 644: 14$ | $227: 16,19$ | $98: 24103: 10$ | $219: 14220: 2$ |
| $48: 2052: 21,23$ | $231: 12233: 10$ | $115: 14116: 8$ | $235: 1255: 10$ |
| $53: 1155: 1,24$ | $234: 7238: 10$ | $128: 18,20,21$ | granting $63: 21$ |
| $56: 1059: 11$ | $243: 19246: 14$ | $135: 6141: 20$ | grants $122: 3$ |
| $61: 2162: 2$ | $247: 20250: 6$ | $142: 2,5,20$ | graph $278: 19$ |
| $63: 1,1,864: 16$ | $252: 1253: 15$ | $145: 24156: 6$ | $279: 25280: 2$ |
| $64: 2265: 22$ | $256: 8258: 6$ | $160: 12171: 5$ | $284: 13293: 3$ |
| $75: 6,1578: 19$ | $259: 4,5264: 6$ | $171: 21178: 14$ | graphics $147: 5$ |
| $83: 1587: 10$ | $266: 19267: 21$ | $180: 12200: 18$ | grave $191: 21$ |
| $88: 391: 15,15$ | $268: 2270: 1,2$ | $231: 12244: 3,4$ | great $41: 24$ |
| $93: 594: 19$ | $271: 13,15$ | $261: 24270: 21$ | $62: 19$ |
|  |  |  |  |

Page 38
[greater - hardy]

| greater 246:16 | 202:8,12 203:2 | 117:13,15 | halting 121:14 |
| :---: | :---: | :---: | :---: |
| 247:6 256:20 | 203:7 209:14 | 126:9,9,22,22 | hampered |
| 279:6,13 | 230:13 237:15 | 131:3 136:3 | 20:22 |
| greatly 217:17 | 242:9 264:20 | 137:5 138:3,10 | hamstrung |
| 226:6 273:6 | 284:9 289:8 | 138:11,12 | 146:14 |
| green 53:6,8 | 293:1 300:21 | 142:6,7 144:7,7 | hand 81:10 |
| 54:2,17,18,19 | guidance 213:3 | 144:23 145:2,3 | 96:2 167:10 |
| 54:22,24,25 | gun 211:19 | 145:14,14 | 176:22 177:2 |
| 55:10,10 56:1,3 | 214:19 221:4 | 147:9 149:13 | 180:20 202:2 |
| 68:18,22 71:3,5 | 241:15 262:22 | 149:13 157:15 | 244:10 284:8 |
| 83:23 84:4 | 263:23 264:11 | 157:19,20 | 285:5 295:2 |
| 124:2 148:22 | 267:12 277:5 | 158:14,16,18 | hanger 255:24 |
| 235:21 236:5,8 | guy 198:3 | 158:19 163:2 | hanson 6:14 |
| 238:11 272:9 | 216:8 | 170:7 174:16 | happen 45:11 |
| gregory 2:5 | guys 196:21 | 174:24,24,24 | 124:23 129:23 |
| greyhound | 197:1 198:2 | 174:25 182:25 | happened |
| 6:18 57:2 | 201:1 292:22 | 184:18,21 | 20:15 45:24 |
| grimy 54:25 | 302:3 | 188:3,3 192:3,6 | 89:22 125:2 |
| gross 58:12 | h | 195:11,18 | 205:1 251:3 |
| ground 233:9 | h 12:1 13:1 | 199:2 201:7 | happy 25:21 |
| grounds 73:24 | - 14:1 15:1 | 219:11,20,20 | 30:11 |
| guadalupe 4:13 | 126:8 248:20 | 219:21 228:12 | hard 70:12 |
| 5:12 6:9,21 | h2s 139:4,5 | 228:12 229:16 | 147:19 162:21 |
| 7:15 8:18 | $161: 1,3,19$ | 229:16,19,19 | 185:25 210:20 |
| guarantees | $162: 6258: 19$ | 230:4,4 231:14 | 237:25 |
| 195:25 | 258:21 | 231:14 237:9 | harder 149:16 |
| guess 36:10 | half $57: 14,21$ | 238:19,24,25 | hardy 3:3 8:4 |
| 48:6 79:7,11,11 | 57:22,22 60:4,5 | 239:2,2,6,7,10 | 17:12,13,15 |
| 89:12 123:15 | $60: 5,6,6,12,13$ | 239:14 242:11 | 18:7,10,14,17 |
| 124:20 127:8 | $60: 13,14,1$ | 242:15,15 | 19:9,10 20:13 |
| 129:12,17 | $69: 1,2,2,2,5,5,6$ | 249:15 252:9 | 22:5 24:20,22 |
| 148:19 155:23 | 69:7 80:13,13 | 252:10,11 | 25:24 26:2,7,17 |
| 157:11 163:1,5 |  | 274:2,2,13 | 56:16,18,20,24 |
| 168:5 173:17 | $101: 10,16$ | 275:13,13,16 | 57:8,9 59:8,9 |
| 179:2 197:23 | 102:1,2 116:25 | 275:19 288:17 | 59:13,16,21 |

Page 39
[hardy - hearing]

| 60:3,10,19,21 | 128:23 129:21 | 38:1,8,18 39:6 | 74:9,13,20 |
| :---: | :---: | :---: | :---: |
| 60:24 | 131:5 161:14 | 39:7,18,19,21 | 75:17,21,25 |
| harris 4:18 | 162:1 170:13 | 39:25 40:13,17 | 76:7,14,17,22 |
| 8:11 | 175:21 186:24 | 40:20,24 41:3,9 | 77:14 78:13,18 |
| hart 4:12 5:11 | 192:15 195:2 | 41:10,16,19,23 | 78:24 79:1,15 |
| 6:8,20 7:14 | 197:4 200:12 | 41:25 42:5,7,16 | 79:19,21 81:25 |
| 8:17 31:22 | 201:15,23 | 42:24,25 43:2,6 | 82:12 83:5,8,14 |
| 36:25 61:5 | 203:3 216:5 | 43:10,16,23 | 83:18,19 84:6 |
| 65:173:13 | 235:7 243:14 | 44:13,22,25 | 84:13,19,25 |
| haul 255:6 | 255:4 282:19 | 45:4,10 47:23 | 85:7,12 86:3,9 |
| head 23:13 | 283:8 288:18 | 48:3,14,19,25 | 86:14,18 87:8 |
| headache 29:15 | 289:3,4,6 | 49:10,18,20 | 87:10,18 88:1 |
| heading 192:20 | 302:17 | 50:6 51:3,13,17 | 88:11,15,24 |
| hear 19:22 | hearing 1:5 2:2 | 51:20,22 52:5 | 89:10,18,21 |
| 23:22 25:9 | 2:5 17:2,6,9,14 | 52:11,15,20 | 90:3,5,11,19,23 |
| 31:2 33:23 | 17:21,22 18:1,6 | 53:15,23 54:1,9 | 91:6,11,13,18 |
| 38:13 62:14,15 | 18:12,13,16,19 | 54:12,16,21 | 91:24 92:8,19 |
| 91:14 98:15 | 18:22 19:6,21 | 55:3,23 56:3,6 | 92:23 93:1,13 |
| 99:2 103:7 | 20:1,17 21:18 | 56:9,13,22 57:3 | 93:17,24 94:9 |
| 109:2 110:3,8 | 22:3,9,16 23:8 | 57:6 58:23 | 94:15,18 95:4,9 |
| 124:25 131:7 | 23:15,21 24:3 | 59:1 60:20,25 | 95:14,16,18,24 |
| 150:20 151:3 | 24:10,17 25:24 | 61:3,7,16,18,23 | 97:3,11 98:1,6 |
| 156:1 159:18 | 26:1,2,5,8,11 | 62:7,9,10,12,15 | 98:23 99:3,7,11 |
| 177:6 201:20 | 26:25 27:5,6,10 | 62:19,24 63:1,2 | 102:7,11,13,18 |
| 204:25 205:4,6 | 27:13,17,23 | 63:7,10,11,12 | 103:7,10 104:9 |
| 210:21 217:4 | 28:10 29:4,7,10 | 63:16,18,23 | 104:11,21 |
| 236:1 264:4 | 29:20 30:19,21 | 64:2,3,7,10,14 | 105:2 107:5 |
| 280:17,24,24 | 30:25 31:7,10 | 64:20 65:4,8,12 | 108:17,20 |
| 281:1,3 283:21 | 31:15,25 32:7 | 65:16,23 66:3 | 109:2 110:2,7 |
| 283:22 288:14 | 32:11,16,21 | 66:11,20,25 | 110:19 112:3,4 |
| 288:23 292:22 | 33:8,12,17,18 | 67:3,12 69:17 | 112:10 113:7,9 |
| 292:24 | 33:21 34:12,19 | 70:14 71:16 | 113:23,23 |
| heard 19:4 25:6 | 35:3,16,23 36:3 | 72:8,13,16,19 | 114:1,11 |
| 47:19 59:23 | 36:5,14,17,21 | 72:20,24 73:1,5 | 115:11,18,25 |
| 72:3 97:4 | 37:2,9,15,21 | 73:9,15,18,19 | 116:16 117:4,5 |

Page 40
[hearing - hold]

| $118: 3,5122: 18$ | $180: 2,3,24$ | $270: 4,9271: 1,6$ | help $30: 11$ |
| :--- | :--- | :--- | :--- |
| $122: 23124: 12$ | $181: 4,16,19$ | $271: 8,12$ | $51: 2270: 6,15$ |
| $124: 15125: 6$ | $182: 10186: 12$ | $280: 10,16,21$ | $70: 15141: 18$ |
| $128: 16129: 12$ | $186: 25187: 2$ | $280: 23281: 2$ | $184: 1240: 16$ |
| $130: 4,8,12$ | $188: 22189: 3,7$ | $283: 20,24$ | $257: 12$ |
| $131: 13,18$ | $189: 11194: 9$ | $292: 19,20,23$ | helped $141: 19$ |
| $132: 16,17$ | $194: 13197: 13$ | $294: 18296: 4,6$ | $206: 1$ |
| $134: 5,8,13,15$ | $199: 16200: 4$ | $297: 9,24,25$ | helpful $25: 23$ |
| $134: 25135: 6$ | $200: 16203: 23$ | $298: 12,21$ | $25: 2585: 1$ |
| $139: 18,21$ | $204: 14,18,23$ | $299: 3,9,20$ | $209: 23$ |
| $140: 3,7144: 9$ | $205: 2,5207: 19$ | $300: 1,6,10,11$ | helps $51: 18$ |
| $144: 13145: 20$ | $207: 24208: 14$ | $300: 14,15,23$ | hereto $306: 14$ |
| $146: 7,15,17$ | $208: 15209: 18$ | $301: 6,8,12,14$ | $307: 11$ |
| $147: 17148: 4,6$ | $209: 25210: 20$ | $301: 15,19,25$ | high $139: 4$ |
| $150: 20151: 1,5$ | $210: 25211: 13$ | $302: 5,14,23$ | $161: 3162: 6$ |
| $151: 8,23152: 9$ | $212: 3,9,21$ | $303: 6,12,17,21$ | $258: 18,21$ |
| $152: 13,16$ | $213: 15214: 12$ | $303: 25304: 1$ | $288: 5$ |
| $153: 3,16$ | $214: 23216: 19$ | $304: 13,20,25$ | higher $225: 1$ |
| $154: 24155: 13$ | $217: 3218: 7$ | $305: 4,8,11$ | $251: 20257: 10$ |
| $155: 25156: 4$ | $221: 6,24235: 9$ | hearings $17: 3$ | $287: 19,21$ |
| $156: 21,24$ | $235: 10243: 6,8$ | $24: 2572: 8$ | $289: 25296: 19$ |
| $157: 3160: 7,10$ | $244: 2245: 24$ | $115: 17140: 13$ | highlight |
| $163: 9,15,17$ | $246: 5,9248: 3,5$ | $209: 2213: 2$ | $173: 12$ |
| $164: 6,13,15$ | $248: 11,15,22$ | $217: 18279: 2$ | highlighted |
| $165: 22166: 2,7$ | $249: 19,23$ | $300: 19$ | $124: 2148: 22$ |
| $166: 11,22$ | $253: 6259: 21$ | hearsay $209: 12$ | $149: 16279: 22$ |
| $167: 25169: 10$ | $261: 23262: 3,6$ | $213: 1$ | highlighting |
| $170: 4,9,12,17$ | $262: 9,11,13,17$ | height $238: 10$ | $149: 7,12152: 4$ |
| $170: 20171: 1,4$ | $263: 11,25$ | $272: 19281: 22$ | highway $186: 9$ |
| $171: 13,16,20$ | $264: 16266: 1,3$ | $283: 7$ | hinkle $3: 48: 5$ |
| $172: 1,2,11,13$ | $266: 22267: 11$ | held $24: 25$ | $56: 20$ |
| $172: 16,20$ | $267: 20268: 6$ | $190: 25$ | history $202: 3$ |
| $173: 1,4,9$ | $268: 10,12,16$ | hello $95: 1$ | hit $218: 4$ |
| $178: 13,22$ | $268: 21269: 6$ | $172: 16200: 19$ | hold $20: 643: 17$ |
| $179: 6,8,13,16$ | $269: 10,20$ |  | $83: 1284: 21$ |
|  |  |  |  |
|  |  |  |  |

Page 41
[hold - inconsistency]

| 90:19 95:1 | 232:22 238:13 | identified 44:5 | implied 195:20 |
| :---: | :---: | :---: | :---: |
| 102:11,13 | 238:13 250:12 | 46:6 174:3 | impossible |
| 107:5 121:3 | 250:16,18 | identifies 44:5 | 193:10 |
| 122:15 137:19 | 251:4,12 | identify 143:22 | impression |
| 139:18 147:17 | 255:25 | 154:3,4 | 177:21 |
| 151:25 200:3 | host 9:13 | identifying | improper |
| 263:25 269:6 | hour 171:9 | 211:17 | 154:22 213:7 |
| 269:12 | houston 20:15 | ignorance | 266:1 |
| holdings | hover 60:1 | 146:20 151:10 | improved |
| 107:15 | hughes 9:5 | 155:18 | 246:20 |
| holiday 47:7 | huh 305:1 | ignorant 184:1 | inaccurate |
| holland 4:12 | hurt 149:5 | imaging 44:15 | 182:23 183:7,8 |
| 5:11 6:8,20 | hydrocarbons | 71:18 | 183:16 298:2 |
| 7:14 8:17 | 229:18 | immediate | include 30:5 |
| 31:22 36:25 | hydrogen | 203:11 274:25 | 46:13 58:1 |
| 61:5 65:1 | 258:18 | immediately | 120:23 127:4 |
| 73:13 | hypotenuse | 135:18 137:22 | 127:11 168:11 |
| honest 282:16 | 223:9 244:23 | 155:8 234:12 | 168:14,17,18 |
| honor 112:8 | hypothetical | impact 225:19 | 179:3 180:1,17 |
| hooks 55:1 | 242:20 283:17 | 239:6 276:12 | 258:16,16,17 |
| hope 51:18 | hypotheticals | impacted 25:15 | included 58:13 |
| hopeful 29:11 | 241:7 | 227:12,19 | 88:22 117:15 |
| 33:6 38:4 | i | impacts 34:10 | 125:7 129:20 |
| hopefully 33:16 | idea 40:25 | 185:16,18,22 | 145:18 168:19 |
| 63:15 139:10 | 114:4 | 236:21 237:5 | 168:21 176:23 |
| 271:8 | ident | 245:14 | 300:15,16 |
| hoping 26:10 | 58:22 69:16 | impair 192:11 | includes 89:17 |
| 184:19 199:5 | 84:2 89:5 | impaired | 102:25 |
| horizontal | 90:16 91:23 | 193:24 | including 58:11 |
| 57:13,13,20 | 93:9 107:4 | impede 190:15 | 76:3 80:7 |
| 60:2 102:21,25 | 156:17 182:6 | 191:23 | 92:13 102:1 |
| 142:14 218:17 | $222: 14,24$ | impeding | 136:14 195:18 |
| 220:16 221:7 | $224: 15 \text { 226:15 }$ | 191:13,14 | 287:1 |
| 221:11 223:5 | 228:2 269:18 | 192:1 | inconsistency |
| 223:10 228:8 | 228.2 |  | 158:10 |

[inconsistent - interests]

| inconsistent | 58:13 68:10 | intangible | 104:6 105:8,22 |
| :---: | :---: | :---: | :---: |
| 157:14,22 | 130:5,9 152:3 | 256:14 | 106:11,12,20 |
| incorrect | 168:20 177:15 | intangibles | 108:8,10,14 |
| 166:20 298:16 | 208:18,19 | 14:24 253:20 | 111:5,7,7 123:7 |
| increase 223:9 | 214:7,9 238:3 | 254:3 256:6,13 | 123:22,25 |
| 224:7,22,24 | 283:25 298:2 | 257:6 | 124:7 125:7,19 |
| 277:21 | infrastructure | intend 160:23 | 126:1,9,22 |
| increased 225:8 | 139:7,9 161:1,6 | 160:25 221:6 | 131:22 132:4,8 |
| 285:1 | 185:8,13 | 232:1 | 133:3,8,10 |
| increases 224:8 | inherent 223:4 | intended 178:5 | 160:20 173:19 |
| increasing | 223:11 | 220:16 | 173:21,23 |
| 223:3 246:21 | initial 26:2 | intensity | 175:5,7,7,18 |
| 246:21 247:23 | 207:13 227:14 | 206:23 212:20 | 177:25 178:3 |
| 279:12 285:1 | 233:18 | 224:1,2,23 | 182:20,25 |
| independent | initially 46:3 | 225:9 245:13 | 183:3,21,24 |
| 199:22 | 50:23 129:5 | 247:1 262:24 | 190:5 191:6,24 |
| indicated 50:11 | ink 298:18 | 263:23 264:13 | 192:3,5,6 |
| indicates 19:7 | inland 277:6,24 | 266:15 277:22 | 196:15,19,21 |
| indication | 277:25 278:4 | 278:20,24 | 197:21,21 |
| 45:19 | 286:16 289:21 | 279:12 284:13 | 198:4,6,9,11,15 |
| individuals | 289:22 290:3 | 285:2 287:3,13 | 198:16,16 |
| 129:7 | 290:20 291:17 | 287:20,22 | interested |
| indulge 296:5 | 296:11 297:3 | 288:4,25 290:1 | 17:16 37:23 |
| industry | input 36:10 | 294:13 | 38:22 46:25 |
| 206:17 | 299:12 | interest 12:13 | 47:13 50:24 |
| influence 34:6 | inquire 35:10 | 17:24 18:18 | 61:10 73:19 |
| 273:6 | inquiries 47:12 | 22:21 23:25 | 188:7 306:15 |
| influences | inset 158:20 | 50:12 55:16,18 | 307:12 |
| 272:22 273:7 | inside 105:22 | 57:11,19 58:7,8 | interesting |
| inform 20:7 | 249:15 255:13 | 58:9,9 67:16,20 | 38:17,22 46:1 |
| 301:17 | instance 227:21 | 67:21 77:23 | interests 80:15 |
| information | 286:5 287:10 | 80:3,13,17 | 85:25 105:24 |
| 12:6 23:17 | 304:9 | 100:4,24 101:3 | 105:24 108:6,7 |
| 46:10 47:18 | instances 286:9 | 101:14,15 | 127:5,14 183:5 |
| 51:2 52:2,18 |  | 103:23,25 | 196:9,10 |

Page 43
[interference - keplinger]

| interference | 69:1 77:4,24 | item 256:2,2 | jones 9:3 73:1,2 |
| :---: | :---: | :---: | :---: |
| 99:8 | 98:18 140:11 | 264:10,11 | jordan 7:7,8,11 |
| internal 125:8 | 140:12 212:15 | items 50:21 | 10:14 19:1,5 |
| 125:9 174:13 | 219:6,10 | 63:5 | 37:8 65:12 |
| 226:9 | 276:20 | J | 94:12 96:9 |
| interpret 116:3 | involvement | j 204:21 205:9 | 134:19 160:13 |
| 230:19,21 | 212:4 | james 3:8 5:4 | jotted 132:24 |
| 231:5 238:14 | isopach 58:12 | jamesbruc 3:11 | juan 206:2,6 |
| 242:7 | issue 27:1 |  | 222:6 |
| interpretation | 29:22 30:4,12 | january 40:14 | judge 75:3 |
| 231:2 284:19 | 30:13 35:7,8 | jason 10:5,22 | judged 282:18 |
| interpretations | 45:18 46:22,23 | Jason 10.5,22 | judgment |
| 231:6 | 47:21 78:3 | 17,21 | 121:14 177:3 |
| interpreted | 112:14 113:25 | 205:8 216:8 | 200:11 204:7 |
| 239:15 | 115:10 213:9 | 244:3 | 217:25 |
| interruption | 214:21 264:12 | jim 3:7 5:3 | judicatory |
| 24:8,9,16 98:22 | 265:22 266:7 | フ2:22 302:8 | 74:20 |
| 124:24 142:10 | 267:12 292:7 | joa 106:6 | judicial 179:23 |
| 208:10 216:25 | 292:15 | J 196:24 197: | july 36:2 |
| 217:2 235:22 | issued 28:6 | 197:18 198:22 | 186:18 |
| 236:7 242:16 | 112:23 113:18 | 198:25 199:7 | jump 142:17 |
| interruptions | issues 28:12,13 | joas 196:13 | june 21:25 |
| 277:3 | 28:15,25 29:7 | 199:3 | 37:14 |
| intervals 219:1 | 37:21 38:4 | job 2:9 142:21 | k |
| 220:10 | 48:8 49:1,2,25 | 256:19 | k 268:20 |
| intransigent | 52:15 55:22 | jobs 256:22 | keep 36:4 49:15 |
| 28:16 | 77:8 106:19 | johnson 9:4 | 108:11 142:20 |
| introduce 72:9 | 108:19 153:2 | 73:2 | 142:22 153:17 |
| investment | 263:18 264:2 | johnson.com | 245:25 271:2 |
| 234:8 | 266:23,24 | 9:7 | keeping 20:25 |
| involve 42:12 | 267:6,22,24 | join 197:7 | 143:5 223:3 |
| involved 19:13 | 268:2,4 | 300:21 | keplinger |
| 26:21,24 29:14 | issuing 35:4 | joint 103:24 | 137:17 141:9 |
| 29:15,18 32:12 | it'll 97:18 172:7 | jointly 185:9 | 286:5 288:11 |
| 43:14 46:3 | 184:1 303:15 | jowny 185.9 | 293:22 297:8 |

Page 44
[kessler - land]

| kessler 7:7,8,11 | 39:12 40:22 | 178:25 185:25 | 306:9 307:6 |
| :---: | :---: | :---: | :---: |
| 18:25 19:1,5,7 | 45:16 50:23 | 186:3,7 190:15 | known 115:8 |
| 24:5,6,11,14,19 | 51:25 52:2,16 | 191:4,21 193:6 | 161:2 214:18 |
| 37:7,8 39:20,21 | 55:22 67:13 | 193:14 194:7 | 227:11 266:16 |
| 65:10,11,12,17 | 70:14,15 76:1 | 195:10,25 | knows 139:24 |
| key 77:16,21 | 76:19,22 78:22 | 197:8,9,16 | 194:7 303:15 |
| 80:18 166:3 | 90:8 92:10 | 199:9 200:7 | I |
| kicked 209:10 | 95:16,22 98:2 | 204:24 208:25 | $17: 3,830: 18$ |
| kickoff 125:18 | 102:9 105:2,23 | 212:25 215:9 | $94: 13,13$ |
| kind 22:22 | 110:24 111:5 | 217:21,22 | 248:20 |
| 28:22 38:10 | 111:14,24 | 224:6 225:6,23 | la 139:3 |
| 39:670:18 | 113:4,24,25 | 225:24 226:2 | labeled 51:9 |
| 101:21 111:15 | 114:23 115:9 | 231:1 232:24 | $123: 14$ |
| 142:16 158:11 | 115:17 116:5 | 233:11 237:1 | labor 47:7 |
| 162:8,21 187:6 | 116:15,17,23 | 237:25 238:12 | lack 92:9 |
| 193:7 198:5 | 118:1 120:12 | 238:15 243:21 | 179:15 233:8 |
| 201:9 219:4 | 121:10 126:19 | 258:9 264:23 | 266:14 |
| 236:13,16,19 | 128:8 129:23 | 265:22 266:7,7 | laid 208:23 |
| 236:20 245:6 | 132:2,7,11 | 266:11 267:1 | land 58:3 68:6 |
| 255:11 274:16 | 137:11 139:23 | 267:25 268:1,8 | 78:7 99:15 |
| 283:11 290:22 | 140:17 147:1 | 270:15 273:9 | 100:8,23,25 |
| 300:21 | 151:1,2 153:8 | 273:23 280:25 | 103:5,17 |
| kingdom 211:9 | 155:19 156:10 | 282:4,8,10,16 | 104:13,18 |
| kmd 184:8 | 158:10,11 | 282:19,20 | 117:23 119:11 |
| knew 111:20 | 159:7,16,19,22 | 288:9,11 | 119:22 120: |
| 115:6 126:19 | 159:23,24 | 291:22 295:22 | 120:20,25 |
| 150:9 155:6 | 160:3 161:10 | 297:20 302:7 | 121:3,20,25 |
| 179:10 | 161:23 163:13 | 303:24 304:8 | 122:10 128:2,7 |
| know 21:5,12 | 165:14 166:14 | knowing | 130:19 133:24 |
| 21:25 22:17 | 166:23 168:6 | 151:11 186:7 | 133:25 140:17 |
| 23:1,5 27:13 | 169:10,19 | 274:19 283:2 | 175:13,22,25 |
| 29:1,2,2,17,17 | 171:9 173:8 | knowledge | 176:7,25 177:3 |
| 30:1,7 32:23 | 174:5 176:12 | 103:16,19 | 177:12,21 |
| 34:13 35:6 | 176:14 177:2 | 121:19 177:11 | 178:1,4,8 180:8 |
| 38:14,23 39:4 | 177:25 178:4 | 213:14 304:4 | 180:18,22 |

Page 45
[land - lips]

| 186:4 196:6 | late 53:11 | led 154:1 202:2 | letters 15:5,8 |
| :---: | :---: | :---: | :---: |
| 199:25 200:8 | 114:2 115:13 | 276:7 | 68:17 93:20,21 |
| 204:5,6 255:7 | 156:12 250:5 | left 30:15 145:4 | letting 169:12 |
| landing 9:5 | 299:14 300:4 | 219:22 245:4 | 181:25 |
| landman 58:2 | lateral 101:8 | 280:13 284:8 | level 22:14,15 |
| 94:12 95:5 | 143:19 158:25 | 285:5 295:2 | 22:19 23:4 |
| 97:21,25 | 229:22,23 | 296:11 | 26:3 27:11 |
| 120:14 128:24 | 237:21,23 | leg 28:23 | 215:17 |
| 163:22,24 | 277:10,15 | legal 198:23 | levels 258:18 |
| 172:14,23,25 | 278:21 280:3 | length 21:6 | 296:14,17 |
| 270:15 | 284:14 294:10 | 237:23 299:17 | lie 284:22 |
| landman's | 297:14,17 | lengths 238:2 | lies 102:22 |
| 12:12 55:19 | laterals 102:1 | lengthy 255:9 | life 30:14 |
| 67:15 165:7 | 106:9 143:4,4,8 | lenient 209:10 | lift 257:9,13 |
| lands 27:4,5,7 | 143:11,16,18 | leonard 9:11 | light 174:14 |
| 69:1 78:5,8 | 191:11 194:21 | 45:8 | 176:16 188:6 |
| 98:12,17,18 | 259:3 263:22 | lesser 292:12 | lightly 232:25 |
| 102:25 103:2 | latest 55:15 | letter 15:13 | likely 259:1 |
| 124:7 135:18 | latitude 217:12 | 104:5,16,25 | limit 299:17 |
| 185:14 186:6 | 243:11 | 105:1,17 | lincoln 7:9 |
| 190:14 274:11 | laundry 29:1 | 106:25 107:2,6 | line 99:8 |
| 278:16,17 | law 3:8 5:4,17 | 107:7,13,14,18 | 118:10 145:1 |
| large 100:24 | 6:4 7:4 9:14 | 107:21 108:1 | 158:21 186:7 |
| 106:11 108:10 | 300:17 301:1 | 109:22 110:1 | 250:7 251:7 |
| 141:13 201:6 | lay 87:3 140:5 | 111:1,11,16 | 256:2,2 267:13 |
| 201:13 242:21 | lea 57:15 | 112:10 113:14 | 267:15 278:18 |
| 247:20 | 260:20 282:17 | 114:13,19,25 | 279:10 |
| larger 28:19 | learning 152:8 | 117:22 119:10 | linear 279:9 |
| 101:15 183:21 | lease 183:1 | 122:4 165:16 | liner 255:24 |
| 225:3,21 | leasehold 123:6 | 186:18,22 | lines 127:3 |
| 245:15 246:16 | 183:3,15 192:2 | 187:7,20 188:4 | 219:5 250:24 |
| 254:11 256:18 | 195:24 | 189:17,21 | 252:7 |
| 257:13 261:11 | leases 68:1 | 190:1 196:14 | lingering 38:6 |
| lastly 220:24 | $\begin{aligned} & \text { leave } 75: 7 \\ & 170: 15270: 23 \end{aligned}$ | $\begin{aligned} & \text { 196:23 197:9 } \\ & \text { 197:24 } \end{aligned}$ | lips 111:23,25 |

[list - looking]

| list 12:13,24 | 72:15 107:15 | 303:24 | 290:6 294:25 |
| :---: | :---: | :---: | :---: |
| 15:6 29:1 | 107:15 | longer 53:13 | 298:6 |
| 55:15,18 67:20 | llp 3:4 8:5 | 76:12 199:10 | looked 34:17 |
| 75:3,12 82:18 | local 218:12 | 248:9,9 303:13 | 54:5 79:9,24 |
| 82:21,25 83:2 | 245:17 | 303:15 | 122:6 150:18 |
| 83:11 84:5 | localized | longtime | 189:17 196:7 |
| 88:5 93:15,20 | 275:12 | 104:18 | 213:21 225:11 |
| 103:22 105:8,8 | located 135:17 | look 22:9 23:19 | 231:16 233:1 |
| 181:11 198:3 | 161:16 192:23 | 34:15 43:17 | 236:10,16 |
| 202:14 263:15 | 219:18 221:18 | 44:14 45:11 | 242:5 257:22 |
| listed 28:4 | 225:13 233:14 | 48:5,9 49:2,22 | looking 20:2 |
| 51:10 75:3,11 | 238:15 283:2 | 53:754:23 | 28:2,2 45:17 |
| 80:21 175:9 | 283:16 | 59:17 65:24 | 51:25,25 53:25 |
| 183:10 | location 2:6 | 66:5,13 67:20 | 60:15 71:17 |
| listen 177:6 | 13:18,20 58:11 | 74:21 76:1 | 76:8 80:19,24 |
| listening 184:2 | 160:22 184:14 | 77:878:4 | 81:3 82:24 |
| lists 175:5 | 193:1 201:16 | 82:18 102:14 | 83:9 87:20,21 |
| little 22:24 | 201:21 203:6 | 118:20 123:4,5 | 104:25,25 |
| 24:24 55:1 | 218:11 219:4 | 123:22 133:6 | 123:13 125:24 |
| 70:16 71:19 | 222:20 241:2 | 135:13 141:24 | 126:14,16,20 |
| 105:21 118:20 | 258:25 | 142:3 149:24 | 131:22 133:1 |
| 133:3,9 135:13 | locations | 150:5 154:1 | 136:17 155:12 |
| 148:20 154:13 | 161:11 186:3 | 161:25 162:22 | 161:24 165:6 |
| 157:8 167:11 | 193:4 218:12 | 165:13 175:13 | 188:18 201:11 |
| 174:8 177:16 | $\boldsymbol{\operatorname { l o g }} 274: 24$ | 179:4 193:12 | 205:12 209:23 |
| 178:15 183:17 | 275:7,8 | 196:11 207:10 | 210:2,21 |
| 187:6 228:20 | logs 158:6 | 210:1 216:23 | 212:16,18 |
| 231:15 235:21 | long 25:10 | 224:19 232:15 | 215:5 219:19 |
| 235:24 240:15 | 67:20 143:6 | 232:17 237:20 | 220:5,8 224:5 |
| 240:23 249:14 | 170:5 173:24 | 241:14,22 | 224:17,19 |
| 252:17 260:17 | 176:21 206:16 | 245:3,8 258:6 | 227:10 232:14 |
| 272:9 293:25 | 249:6,12 255:9 | 272:15 273:22 | 233:3 237:7,16 |
| 295:6,13 | 255:16,22 | 275:7 281:15 | 238:17 239:13 |
| llc 6:12 8:2,9 | 267:5 270:20 | 282:24 287:16 | 239:14,21 |
| 32:4 56:21 | 271:7,9 299:8 | 287:16 288:2 | 241:19 242:11 |

Page 47
[looking - mailing]

| 245:12 249:3 | 242:25 270:20 | 164:16 165:25 | 296:18,19 |
| :---: | :---: | :---: | :---: |
| 272:12,13 | 297:7,9,10 | 200:17,18,20 | lowered 284:10 |
| 274:7 277:8,9 | 299:9 304:8 | 200:25 201:4,9 | lowest 280:2 |
| 279:3 281:6 | louder 109:3 | 201:19 202:4 | lows 236:10 |
| 285:18 289:18 | low 279:16 | 202:12,22 | lunch 167:2 |
| 289:24 299:23 | 288:5 297:13 | 203:1,14,24 | 168:7 169:17 |
| looks 36:15 | lowe 9:11 45:8 | 243:22,25 | 171:7,9,22 |
| 42:7 44:17 | 45:9,11,13 46:1 | 244:3,5,8,17,21 | lychee 228:5,5 |
| 46:20 48:5,13 | 46:15,19 47:11 | 244:25 245:11 | m |
| 50:21 51:8 | 47:16,20,24 | 245:19 246:1 | m 16:2 172:18 |
| 52:3 64:17 | 48:3,4,15 49:22 | 261:23,24 | 204:21 205:9 |
| 72:9 80:16 | 49:25 50:10,14 | 262:4 292:20 | 206:7,8 |
| 81:1 84:7 85:1 | 50:17,19,20 | 292:21 293:1,6 | ma'am 60:18 |
| 88:7 118:7,21 | 51:4,17,19,20 | 293:8,16,21 | 103:8 |
| 137:2 138:12 | 51:21,24 52:6 | 294:3,7,11,14 | macdonald |
| 142:5 146:21 | 52:10,14 55:3,6 | 305:7,10 | 124:1,6,17 |
| 185:23 238:17 | 55:14,21 59:5,7 | lower 14:8 | 125:18,25 |
| 239:17 242:13 | 59:10,14,19,22 | 136:24 137:2,6 | 127:4 129:13 |
| 287:11 291:3,3 | 60:7,15 63:20 | 138:4,8,15,17 | 130:3 131:23 |
| loop 254:25 | 63:22 66:6,25 | 142:6 144:5 | 132:9 133:1,8 |
| 255:3 | 67:2 69:17,18 | 148:21 149:1 | 183:9,23 196:8 |
| lose 287:2 | 69:21 70:6,13 | 149:11 152:20 | 197:25 198:20 |
| loss 255:12 | 70:18 71:8,14 | 154:7 167:16 | macdonald's |
| lost 291:24,25 | 71:16 72:3 | 168:25 169:5 | 127:13 |
| lot 23:2 28:18 | 78:16,21,22 | 220:25 221:15 | made 19:16 |
| 29:14 67:19 | 128:16,18,22 | 221:20 222:16 | 89:7 128:7 |
| 71:1,2 74:22,22 | 129:1,11,16,21 | 225:14 233:12 | 150:23,24 |
| 109:17 145:5 | 130:14,17,23 | 233:20 234:3 | 163:22 166:5 |
| 147:24 172:7 | 131:1,7,11,14 | 234:14,18 | 180:7 191:20 |
| 173:8,10 | 160:7,8,11,17 | 241:17 256:23 | 200:12 204:9 |
| 185:24 197:12 | 161:12,22 | 272:9 274:23 | 208:20 270:18 |
| 202:2 205:6 | 162:17,21 | 275:1,6 276:8 | 273:13 |
| 211:11 212:13 | 163:5,9,12,16 | 284:8 287:25 | mail 58:15 |
| 217:12 228:21 | 163:17,21,25 | 288:17 289:1 | mailing 15:6 |
| 237:19 238:3 | 164:4,6,11,14 | 289:21,25 | 93:20 |

[main - mean]

| main 77:7,8 | 264:22 301:15 | 224:14 226:14 | 162:24 179:20 |
| :---: | :---: | :---: | :---: |
| 84:4 183:9 | manner 257:15 | 228:1 252:13 | 191:20 |
| 198:8 245:5 | map 13:20 | 262:21 269:17 | matters 19:20 |
| 277:14 | 58:11,12,12 | marking 88:25 | 34:7 44:10 |
| maintain 112:6 | 135:12,14 | 181:12 | 56:17 79:23 |
| 233:25 | 158:20,21 | marlene 9:13 | 172:25 175:24 |
| maintaining | 161:23 200:23 | 31:3,11 34:13 | 176:22 177:2 |
| 217:5 | 218:11 239:22 | 34:17,21 35:18 | 216:24 |
| maintains | 245:4 278:15 | 40:25 41:1 | matthew 6:13 |
| 112:9 | 278:17 279:22 | 42:17 49:13 | 15:4 93:18 |
| majority | 293:12,19 | 62:10,13,17 | maverick 124:1 |
| 233:14 254:15 | mapping 147:3 | 63:19 301:14 | 124:6,17 |
| 255:4 | 147:5 211:10 | 301:17 303:14 | 125:19,25 |
| make 21:17 | maps 220:14 | masters 210:13 | 127:5,13 |
| 23:6 27:24 | marathon 8:9 | mata 206:3,7,9 | 129:13 130:1 |
| 38:12 40:23 | 32:10 | 222:6 | 131:23 132:9 |
| 71:17 75:7,10 | march 151:17 | matador 3:13 | 133:1,8 183:10 |
| 75:13,15 76:4 | 184:16 258:10 | 17:23 18:18 | 196:9 198:20 |
| 86:6,19 87:3 | 295:10 | 22:20 28:17,19 | 198:20,25 |
| 92:20 107:8 | mark 89:23,23 | 62:1 137:16 | maverick's |
| 112:6 114:10 | 181:9 182:2 | 141:9 143:10 | 183:24 |
| 117:9 142:2 | 298:17,23 | 159:12,15,16 | mcclure 43:14 |
| 156:5 158:3 | marked 58:21 | 159:22 160:1 | 45:17 46:10 |
| 163:25 168:6 | 69:15 71:6 | 293:15 | 48:10 |
| 169:12 172:7 | 84:2,12 89:5 | materials | mckenzie 3:16 |
| 189:8 191:6 | 90:15 91:23 | 175:17 | 3:23 |
| 193:10 255:19 | 93:8 103:13 | math 292:3 | memillian |
| 257:23 261:5 | 105:18 106:24 | matt 72:14 | 70:20 |
| 263:12 276:4,7 | 107:3 109:23 | matter 1:5 | mdrodriguez |
| 286:4 295:23 | 110:7 120:5 | 26:20 27:16 | 4:7 |
| 299:14 303:22 | 143:21 156:16 | 29:13 31:24 | mean 20:12 |
| makes 34:11 | 176:4 177:7 | 34:4 39:17 | 21:20 27:12 |
| 40:21,24 | 182:5 189:5 | 43:7,15 75:12 | 38:22 82:6 |
| 148:20 166:18 | 208:5 222:11 | 106:24 111:12 | 112:16 113:24 |
| 179:25 198:6 | 222:13,23 | 130:19 131:3,5 | 126:12 142:1 |

Page 49
[mean - mile]

| $147: 10171: 8$ | $79: 23,2480: 14$ | $193: 24194: 21$ | $177: 11178: 18$ |
| :---: | :--- | :--- | :--- |
| $181: 1191: 10$ | $81: 5,6,899: 23$ | $194: 23195: 1$ | $182: 14185: 18$ |
| $213: 16216: 3$ | $100: 14,17$ | $195: 12,16,16$ | $186: 15187: 25$ |
| $232: 21238: 3$ | $103: 4,22$ | $195: 17196: 6$ | $196: 11,17$ |
| $242: 10260: 11$ | $104: 20106: 7$ | $204: 8222: 2,25$ | $197: 7200: 8$ |
| 260:17,19,25 | $106: 16,19,25$ | $224: 19228: 18$ | $203: 13222: 5,8$ |
| $265: 6,15$ | $107: 3,16$ | $231: 10235: 3$ | $223: 8228: 13$ |
| $272: 15275: 21$ | $108: 16109: 18$ | $240: 10,13$ | $233: 6246: 24$ |
| $275: 22286: 15$ | $109: 23111: 10$ | $242: 8243: 2$ | $255: 21257: 1$ |
| $290: 24$ | $113: 19,21$ | $244: 20253: 7$ | $257: 19266: 19$ |
| meaning | $114: 8,25115: 1$ | $254: 9,15$ | $271: 14277: 5$ |
| $119: 11122: 6$ | $124: 5125: 4,9$ | $256: 15257: 11$ | $280: 5291: 18$ |
| $150: 2154: 4$ | $126: 8,21$ | $258: 2,4,20$ | mexico $1: 17: 10$ |
| $259: 12,12$ | $127: 17,21,25$ | $261: 17262: 24$ | $7: 2299: 15$ |
| meant $157: 19$ | $128: 1132: 5,8$ | $263: 3,5,17$ | $250: 3251: 2,23$ |
| $163: 20195: 11$ | $132: 13138: 20$ | $264: 8,19265: 7$ | $270: 19286: 13$ |
| meat $55: 1$ | $139: 15140: 13$ | $265: 23266: 8$ | michael $4: 3,4$ |
| meet 43:8 | $141: 15142: 9$ | $266: 16267: 17$ | $4: 115: 86: 19$ |
| mention $67: 10$ | $142: 21143: 13$ | $268: 24269: 12$ | $7: 138: 16$ |
| $300: 18$ | $143: 21144: 5$ | $269: 17270: 19$ | $31: 2132: 3$ |
| mentioned | $151: 20154: 5$ | $272: 1293: 14$ | $36: 2442: 22$ |
| $27: 18141: 9$ | $155: 5157: 11$ | mewbourne's | $70: 2073: 12$ |
| $183: 12198: 19$ | $163: 2172: 3$ | $77: 2278: 6$ | $204: 22$ |
| $198: 25246: 7$ | $173: 15176: 12$ | $80: 2281: 24$ | microsoft $211: 9$ |
| $252: 21300: 19$ | $176: 18,25$ | $105: 18108: 24$ | mid $83: 487: 13$ |
| mentioning | $177: 13178: 5,9$ | $114: 9117: 11$ | middle $99: 21$ |
| $247: 11$ | $180: 6,16,22$ | $117: 21119: 13$ | $144: 6172: 2$ |
| metric $284: 15$ | $182: 20,24$ | $120: 8122: 7$ | $230: 16,17$ |
| mewbourne | $183: 14186: 20$ | $124: 4,11,14$ | $261: 6286: 17$ |
| $3: 214: 10$ | $186: 23,24$ | $133: 16,25$ | midland $251: 15$ |
| $15: 1217: 13$ | $188: 7189: 18$ | $134: 1136: 2$ | $251: 17,23$ |
| $25: 326: 20,24$ | $189: 18190: 2$ | $154: 4157: 16$ | might ve $244: 9$ |
| $26: 2448: 24$ | $190: 24191: 14$ | $163: 10164: 24$ | mile $101: 8,25$ |
| $72: 2377: 16$ | $191: 21,25$ | $174: 7175: 21$ | $106: 9,10143: 1$ |
| $78: 1,9,1179: 23$ | $192: 4,9,18$ | $176: 5,25177: 8$ | $143: 1,1,3,7,11$ |
|  |  |  |  |
|  |  |  |  |

Page 50
[mile - multiple]

| 143:16,18,19 | missed 198:12 | month 38:7 | 73:20,21,23 |
| :---: | :---: | :---: | :---: |
| 159:4,4,8 | missing 52:6 | 277:14 278:2,8 | 74:2,24 75:15 |
| 191:11,14 | 95:19 | 278:20 280:3 | 75:19 85:14 |
| 192:19 194:21 | missouri | 284:14 286:17 | 108:25 109:12 |
| 224:19 225:11 | 306:23 | 295:3 | 110:17 112:14 |
| 225:20 229:22 | misspoke | months 38:8,9 | 120:8 176:5 |
| 229:23 245:8 | 287:18 | 112:22,22 | 178:18 304:10 |
| 274:12 275:16 | mistakes 85:4 | 138:2 151:17 | 304:11 |
| 275:19 294:1 | mitigate 240:16 | 194:3 207:12 | mountain 74:8 |
| 297:13,18,18 | mixture 285:13 | 252:15 285:6,7 | move 30:16 |
| 297:21,21 | modern 81:17 | 285:8,9,17 | 31:16 33:16 |
| miles 274:15 | 142:1 | 287:4 291:2 | 36:8 48:20 |
| million 139:5 | modrall 4:18 | 304:12 | 52:23 56:10 |
| millions 232:23 | 8:11 32:9 | mor 246:15 | 61:1 64:16 |
| mine 19:4 | 36:18 | morning 17:12 | 69:10 71:18 |
| 79:14 111:25 | moment 22:6 | 17:19,21,22 | 99:10 108:15 |
| 118:3 257:25 | 32:22 82:16,20 | 18:2,3,6,25 | 111:23 179:2 |
| mineral 1:2 | 95:1 102:16 | 19:6 31:20 | 196:5 255:20 |
| 100:4 105:24 | 156:6 202:5 | 32:3,7,8,11 | 256:25 276:15 |
| 173:19 | momentarily | 36:17,23 37:2 | 276:19 |
| minimal 182:20 | 95:21 | 37:10 42:21 | moves 207:21 |
| minor 77:12 | moments 113:5 | 45:10 53:18 | moving 20:23 |
| minute 83:15 | monday 49:12 | 59:8,9 61:3,8 | 36:4 62:23 |
| 102:15 108:19 | 50:5 76:2,6 | 61:12,13,16,22 | 64:5 72:6 |
| 122:19 127:1 | 150:2,8 | 63:11 64:24 | 104:15 252:25 |
| 137:19 171:21 | money 253:16 | 65:11,19 69:18 | mre 5:2 32:15 |
| 186:11 210:1 | monitor 65:15 | 69:20 72:13 | 42:12,19,23 |
| 248:8 261:13 | monitoring | 73:1,6,10,11 | 43:4 46:2 |
| 269:7 280:14 | 23:24 24:8,13 | 76:2,6 83:16 | 53:20 61:5 |
| minutes 152:8 | 30:23 39:22 | 87:13 88:20 | 73:14 105:14 |
| 269:21,23 | 73:3 | 89:17 128:18 | mtdr 288:10 |
| 280:12 283:10 | montgomery | 128:20,21 | mullins 6:14 |
| mirrors 115:7 | 5:17 6:4 18:4 | 271:11 298:11 | multiple 82:17 |
| mislabeled | 61:14 | motion 63:10 | 161:24 209:3 |
| 51:14 |  | 63:13 72:17 | 211:9 250:13 |

Page 51
[must've - nine]

| must've 110:22 | near 33:7 37:22 | needed 41:17 | new 1:17:10,22 |
| :---: | :---: | :---: | :---: |
| mute 243:7 | 38:15 | 43:5 50:7 51:7 | 22:22 23:9 |
| muted 84:3 | nearburg | 52:7 73:23 | 25:5 34:3,9 |
| 131:16 243:5 | 146:22 241:23 | 154:23 | 44:5 46:11 |
| 245:23 280:18 | nearby 136:6 | needle 38:2 | 84:17 99:14 |
| 280:19 281:1 | 136:14 137:10 | needs 61:25 | 126:14,16 |
| muting 245:24 | nearly 138:3 | 62:4 105:16 | 153:12 155:8 |
| mutually 33:5 | necessary 29:7 | 169:18 248:9 | 165:7 166:20 |
| n | 39:18 68:4,10 | negotiate 29:6 | 209:22 250:3 |
| n 3:14:15:1 | 171:18 | negotiated | 251:2,22 |
| 6:17:1 8:1 9:1 | neck 292:10 | 101:9,10,17 | 270:19 286:13 |
| 10:1 11:1 16:1 | need 29:9 31:13 | negotiating | newest 153:11 |
| 16:2 17:1 | 34:15 35:11,12 | 19:11 107:17 | news 112:10,13 |
| 110:10 172:18 | 35:20 38:16 | negotiation | newspaper |
| 172:19 204:21 | 41:7 46:19 | 22:23 61:25 | 43:4 45:1,3 |
| 205:9 248:20 | 49:13,17,24 | 180:13 | 46:25 47:5,7 |
| 268:20 | 50:1 53:13 | negotiations | nice 43:13 |
| n11h 227:8 | 62:5 64:3 | 20:3,10 25:23 | 299:8 |
| name 19:4 | 67:23 75:2,4 | 29:19 38:3 | nicholas 11:3 |
| 45:23,24 46:11 | 94:20 100:13 | 63:3 64:4 | 88:21 89:9 |
| 47:4 130:20 | 105:12 107:6 | 77:10,19 80:20 | 92:14 95:6 |
| 160:12 172:7 | 109:6 115:13 | 80:23 159:17 | 97:7 248:20 |
| 172:17,18 | 122:21 128:22 | 159:20,22 | 249:20 |
| 204:19,20,21 | 148:19 149:3 | 161:6 173:14 | nick 11:6 84:9 |
| 205:8,9 206:6 | 152:24 153:7 | 174:6 199:7 | 84:17 94:13,15 |
| 248:17,19,20 | 153:13,23 | 202:1 | 96:14 268:19 |
| 268:17 301:21 | 155:7 169:17 | neither 110:3 | 269:11 |
| 301:22 | 171:9,13 193:4 | 306:10 307:7 | night 53:11 |
| named 210:12 | 193:22 203:8 | never 75:19 | 54:21 56:1 |
| 252:19 | 205:1 226:5 | 79:7 101:23 | 114:2 123:3 |
| naming 45:14 | 260:17 262:25 | 114:25 116:25 | nine 27:24 |
| $52: 16$ | 272:6 280:11 | 143:12 153:7 | 30:15 31:14 |
| narrow 284:3 | 281:25 296:23 | 170:12 265:13 | 43:19 207:12 |
| natural 1:2 | 303:8 304:6,15 | 273:17 | 291:1 |

Page 52
[nineteen - numbers]

| nineteen $74: 5$ | $221: 17222: 16$ | notice $12: 6,11$ | $40: 1741: 2,8,18$ |
| :--- | :---: | :--- | :--- |
| nm 2:7 3:6,10 | $222: 19223: 4$ | $12: 1615: 3,5$ | $41: 23258: 3$ |
| $3: 17,244: 14,20$ | $223: 13226: 2$ | $35: 937: 17$ | novo $22: 13,16$ |
| $5: 6,13,196: 6$ | $231: 23233: 18$ | $43: 8,11,19$ | $23: 2525: 1$ |
| $6: 10,16,227: 6$ | $244: 13,16$ | $44: 17,2245: 2$ | $26: 8,2527: 5,6$ |
| $7: 168: 7,13,19$ | $274: 10,14$ | $45: 1846: 22,23$ | $27: 12$ |
| nmac 102:10 | $282: 4$ | $47: 8,9,11,18$ | number $19: 12$ |
| nod $125: 11$ | northeast | $49: 550: 852: 7$ | $19: 1320: 19$ |
| nonstandard | $241: 24275: 9,9$ | $52: 853: 2,7,13$ | $22: 1023: 11,13$ |
| $162: 13163: 7$ | $275: 17276: 1,1$ | $53: 1454: 3$ | $28: 14,2532: 5$ |
| $164: 3$ | northern $9: 2$ | $55: 258: 13,16$ | $32: 2042: 13$ |
| normal $280: 6$ | $73: 3$ | $62: 3,563: 3$ | $57: 9,18,25$ |
| normalize | northwest | $67: 15,1868: 17$ | $68: 2171: 2,4$ |
| $297: 18$ | $117: 12223: 17$ | $68: 17,1970: 25$ | $77: 9,9,1184: 9$ |
| normally $77: 2$ | northwestern | $93: 18,19,20$ | $88: 889: 1$ |
| $302: 17303: 25$ | $234: 5$ | $123: 2124: 15$ | $97: 22123: 15$ |
| north 4:13 5:12 | nos $1: 9$ | $124: 21125: 5$ | $127: 10133: 14$ |
| $6: 9,217: 15$ | notable $81: 2$ | $125: 20154: 22$ | $137: 7140: 12$ |
| $8: 1814: 869: 2$ | $254: 24$ | $179: 23198: 13$ | $140: 16142: 11$ |
| $69: 2,479: 24$ | notary $2: 8$ | $265: 2,23266: 8$ | $174: 10187: 13$ |
| $80: 4,898: 13,19$ | $306: 22$ | $267: 8,17$ | $187: 16201: 22$ |
| $99: 19102: 2,23$ | notated $253: 21$ | noticed $70: 23$ | $205: 19209: 19$ |
| $107: 24108: 4$ | $254: 11,18$ | $129: 5,7198: 2,3$ | $229: 5232: 13$ |
| $109: 20111: 2,7$ | $257: 8$ | $198: 19$ | $237: 13242: 2$ |
| $118: 11,25$ | notation $255: 18$ | notices $198: 23$ | $242: 20246: 7$ |
| $119: 7,25123: 7$ | note $21: 722: 10$ | noticing $46: 24$ | $257: 10261: 11$ |
| $123: 15126: 3,7$ | $34: 3$ | notification | $263: 17,17$ |
| $135: 23,25$ | noted $202: 8$ | $198: 17$ | $273: 16274: 11$ |
| $136: 11,22$ | $279: 19284: 4$ | notified $67: 19$ | $284: 15,18,20$ |
| $139: 3161: 19$ | notes $31: 4$ | $67: 2270: 21,24$ | $292: 16,17$ |
| $174: 11177: 22$ | $43: 1749: 2$ | notify $176: 18$ | $298: 13,15$ |
| $182: 19185: 15$ | $52: 662: 25$ | notwithstandi... | $300: 14$ |
| $192: 19,20,24$ | $86: 1992: 20$ | $287: 24$ | numbers $19: 7$ |
| $193: 9194: 21$ | $132: 14156: 20$ | november | $26: 9,14,18$ |
| $201: 2,8202: 19$ | $182: 1$ | $19: 18,2430: 9$ | $126: 11132: 24$ |
|  |  |  |  |

Page 53
[numbers - offsetting]

| 133:1,11 | 47:25 51:4 | occur 45:3 | 177:12,21 |
| :---: | :---: | :---: | :---: |
| 136:23 149:19 | 61:17 62:23 | 193:10 | 178:2,4,8 180:8 |
| 150:7 183:18 | 65:6 72:1 | occurs 199:6 | 180:18,22 |
| 185:2 251:19 | 74:11 75:7 | ocd 9:14 46:18 | 200:1,8 204:6,6 |
| 274:19 284:22 | 90:17 92:11,18 | 47:14 70:7 | officer 110:19 |
| 296:23 297:16 | 93:23 112:6,9 | 76:6 121:17 | 112:10 117:6 |
| numerous | 115:15 134:24 | 129:17 174:14 | 118:4 131:19 |
| 134:21 | 140:8 144:9 | 177:5 200:12 | 144:10 146:16 |
| nw 4:19 8:12 | 166:25 173:2 | 300:12 302:6 | 148:6 155:25 |
| 0 | 179:9,13 211:4 | ocd's 45:22 | 207:20 235:9 |
| , | 217:5 243:20 | 46:16 190:3 | 243:6 248:3 |
| 204:21 205:9 | 249:22 264:3 | 193:17 | 296:4 301:8 |
| 248:20,21 | 266:21 271:2 | october 31:5,8 | 303:25 306:1,2 |
| 268:20 | 271:20 | 31:9,10 40:5,9 | offset 14:13,22 |
| o'clock 171:11 | objections 24:1 | 40:12 41:3,6,18 | 215:11 221:18 |
| 171:22 | 53:21 58:23 | 41:20 61:23 | 223:4,10 |
| oath 97:15 | 60:22 65:14,22 | 62:7 63:2,10 | 224:12 226:22 |
| 135:8 216:15 | 135:5 269:24 | 64:2 | 227:7,11,17 |
| 248:23 | obligations | odd 20 | 233:2,10,14 |
| object 75:8 | 100:8 | offer 302:10 | 234:1,6,12 |
| 85:9,15,21,23 | observation | offers 249:19 | 236:10,15 |
| 86:1191:9 | 246:18 | office 31:22 | 237:4 238:4,13 |
| 98:2,3 107:8 | observed | 36:25 54:22 | 240:16,20 |
| 138:20 139:17 | 246:20 | 61:4 64:25 | 241:2 242:19 |
| 154:18 179:7 | obtained 253:1 | 68:7 73:12 | 244:13,15 |
| 194:5 208:12 | obvious 180:9 | 100:8 103:5,18 | 245:17 247:23 |
| 210:18 | 298:19 | 104:13,18 | 250:14 252:6 |
| objected 87:24 | obviously 54:14 | 117:24 119:11 | 274:10,11 |
| 144:11 189:1 | 76:10 135:17 | 119:23 120:16 | 275:4,5 276:13 |
| objecting 57:4 | 146:13 151:18 | 120:21,25 | 276:16 277:24 |
| 73:25 86:5,15 | 180:13 191:10 | 121:3,20,25 | 278:6 280:1 |
| 92:5 139:22 | 193:16 239:11 | 122:10 130:19 | 282:15 |
| 144:12 | 265:17 266:10 | 133:24,25 | offsetting |
| objection 37:17 | occ 22:16 26:17 | 175:13,22,25 | 142:22,22,23 |
| 39:8,9,10,17 | 26:22 | 176:7,25 177:3 |  |

Page 54

| offshore 260:16 | 297:17 | 79:15 81:25 | 144:13 146:7 |
| :---: | :---: | :---: | :---: |
| 260:16 | okay 17:6,9 | 82:23 83:8 | 146:25 147:2,4 |
| oh 42:18 46:23 | 18:13,16 19:21 | 84:20 85:7 | 148:19 150:6 |
| 49:10,18 50:18 | 20:1 22:3 24:3 | 86:3,14,19 | 150:17 151:5 |
| 104:14,24 | 24:10 27:17 | 87:18,19,25 | 152:16 155:13 |
| 130:10 141:8 | 29:4,20 31:11 | 88:11,15,24 | 156:4,18,24 |
| 150:22 162:18 | 31:16 32:16,21 | 89:10,21 90:7 | 159:24 160:11 |
| 165:11 196:11 | 34:12,21 40:20 | 90:11,19,22,23 | 160:17 161:12 |
| 219:12 259:11 | 41:10,16,25 | 91:4,5,11,17 | 163:21 164:4 |
| 272:8 279:18 | 42:6,16,17 | 92:10 93:17,24 | 164:11,13 |
| 287:17 299:1 | 43:20 44:15,18 | 94:6,9,15,18 | 165:11,12,16 |
| 300:20 303:6 | 44:21 45:4 | 95:9,16 96:1 | 166:7,11 167:3 |
| 304:25 | 46:15,19,21 | 97:11,20 98:1,6 | 167:23,25 |
| oil 1:3,6 3:2 8:2 | 47:11,16,20,23 | 98:12 99:7 | 168:16 169:5,9 |
| 8:9 9:2 17:3,13 | 48:5,7,13,14,19 | 100:7,14,19 | 170:9,19 171:1 |
| 32:10 42:8 | 49:3,10,18,20 | 101:25 102:5 | 171:4,10,20 |
| 53:20 56:21 | 50:20 51:3,17 | 102:11,18 | 179:16 181:3,4 |
| 72:23 73:3 | 52:5,20 53:23 | 103:16,20 | 181:20 182:2 |
| 104:19 107:16 | 54:7,12,16 55:3 | 104:8,21 105:3 | 182:10 188:22 |
| 124:1,6,17 | 55:21,23 56:9 | 105:5 106:14 | 189:11 190:8 |
| 125:19,25 | 57:6 59:14,19 | 108:6,15 | 190:11 191:13 |
| 126:8,21 127:5 | 59:22 60:7,8,15 | 115:25 119:10 | 195:14,25 |
| 127:13 129:13 | 60:20 61:11 | 120:19 121:19 | 196:6 201:9 |
| 130:1 138:3 | 62:19,24 63:15 | 122:23 124:14 | 202:4 203:14 |
| 182:20 186:20 | 63:25 64:11,20 | 127:16 128:6 | 203:15 204:14 |
| 206:17 213:18 | 65:4,9 66:4,11 | 128:12 129:1 | 204:23 209:25 |
| 224:8,24 233:9 | 66:14,20,25 | 129:11,21 | 214:23 221:21 |
| 236:12 237:12 | 67:3,12 70:6,17 | 130:12,17 | 223:25 226:24 |
| 238:1 244:22 | 70:19 71:8,14 | 131:1,11,13 | 230:6 236:3,4 |
| 272:21 277:15 | 71:16,21,22 | 132:17 133:19 | 240:7 241:19 |
| 278:2,3,8,9,20 | 72:6,16,24 73:9 | 134:5,8,19,25 | 241:22 244:17 |
| 278:24 279:7 | 73:15,20 74:21 | 135:15,23 | 245:11 246:6,9 |
| 279:13 280:3 | 75:21,23 76:17 | 136:2,13 | 248:11,22 |
| 281:24 284:14 | 76:19 77:1 | 137:19,24 | 251:21 261:4 |
| 290:19 291:8 | 78:13,18,24 | 139:13,20 | 261:13 262:13 |

Page 55
[okay - order]

| 262:17 263:16 | omitted 16:5 | 107:15 174:11 | opinion 39:23 |
| :---: | :---: | :---: | :---: |
| 263:25 264:16 | 89:15 | 251:8 263:3 | 137:7 142:25 |
| 267:20 268:21 | once 48:964:1 | operation | 184:4 185:23 |
| 269:6 270:4,9 | 108:4 175:14 | 265:6 | 212:23 213:6 |
| 271:1,6,12,13 | 237:8 301:7 | operationally | 229:12,25 |
| 272:3 273:9 | 303:19 | 251:18 261:1 | 233:7 261:14 |
| 276:9,14,19 | ones 67:23 | operations | 261:20 |
| 277:4 280:4,10 | 244:10 | 260:12 266:20 | opinions |
| 280:21 281:10 | ongoing 33:1 | 269:3 | 261:20 |
| 281:15 282:3,8 | 125:15,18 | operator | opponent 116:6 |
| 282:20,24 | online $257: 14$ | 100:18 138:24 | opportunity |
| 283:13,24 | 289:15 303:2 | 165:17 174:16 | 21:10 28:18,20 |
| 285:10,15,21 | 303:20 | 191:1,22 | 47:19 74:19 |
| 286:25 287:11 | onshore 260:17 | 195:12 196:1 | 113:3 116:13 |
| 287:21 288:2 | open 51:6 83:9 | 199:19,21 | 121:16 156:10 |
| 288:14,23 | opened 22:22 | 240:1 241:8 | 160:9 177:5 |
| 289:18,24 | 28:17 265:15 | 250:21 253:16 | 178:14 182:13 |
| 290:3,6,12 | 265:16 | 261:15,18,19 | 192:15 198:18 |
| 291:4,15,22 | opening 10:7,8 | 263:5,17 264:8 | 206:23 207:1 |
| 292:5 293:16 | 76:20,25 79:20 | 264:20 265:12 | 222:1 300:13 |
| 293:21 294:3 | operate 100:15 | 266:20 | opposed 64:7 |
| 294:11,14,15 | 192:13 195:24 | operators | 80:9 154:19 |
| 297:5,20,25 | 196:1 251:16 | 142:23 162:25 | 225:21 232:9 |
| 298:21 299:20 | 261:6,9,11 | 165:17 195:23 | 259:15 |
| 299:25 300:6 | operated 114:9 | 261:2 293:14 | opposing 26:20 |
| 300:23 301:6 | 192:8 | 304:7 | opposition 80:7 |
| 302:14 303:7 | operates | operatorship | 80:21,22 |
| 303:12,17,18 | 251:21 | 26:14 177:4 | optimistic |
| 304:13,14,15 | operating 4:2 | 184:20 197:14 | 19:19 |
| 305:1,8 | 4:16 6:2,12 | 197:17 251:6 | option 159:14 |
| old 19:8 30:13 | 7:18 8:3 32:4 | 251:20 256:21 | orange 219:5 |
| older 36:6,8 | 34:5 36:19 | 260:6 | order 23:24 |
| 77:6 | 37:13 65:2,3 | operatorships | 27:6 29:22 |
| omit 271:15 | 72:15 73:8 | 251:24 | 57:10,19 68:7 |
| 298:14 | 101:5 103:24 |  | 77:4,7 86:9 |

Page 56
[order - packer]

| 106:2,4 111:17 | orth 301:7,11 | 237:23 252:18 | ownership 12:4 |
| :---: | :---: | :---: | :---: |
| 112:23 113:17 | orthodox 241:2 | 253:14 254:13 | 12:24 58:4 |
| 113:17 139:13 | ought 115:9 | 259:14 | 67:17 77:12,21 |
| 139:15 141:6 | outcome 34:7 | overlap 217:18 | 80:17 103:22 |
| 151:21 184:4 | 160:24 200:4 | 217:22 | 105:7 106:12 |
| 184:22 185:3 | 306:15 307:12 | overlapping | 123:7,24 |
| 190:2,3,24 | outland 158:4,6 | 193:19 194:20 | 175:20 183:13 |
| 197:6 198:22 | 158:12 174:20 | override | 191:8 |
| 199:11 234:25 | 174:21,21 | 166:24 | owns 80:12 |
| 246:14 264:19 | 185:6 225:12 | overrides 62:4 | 244:18 |
| 264:22 266:1,3 | 229:8 239:14 | overriding 58:9 | oxy 105:14,15 |
| 304:1 | outline 238:19 | 175:7,8 198:4 | p |
| ordering 21:14 | 238:21 172:21 | overrule | p 3:1,1 4:1,1 |
| orders 28:5,6,8 | outlined 172:21 | 243:19 | p 5:1,1 6:1,17:1 |
| 35:5,8,8,9 | 278:18 | own 80:15 | 7:1 8:1,1 9:1,1 |
| 70:14 121:6 | outperforming | 100:24 105:22 | 17:1 |
| 140:16 178:11 | 286:10 | 105:23 106:4 | p.a. 6:14 7:4 |
| 184:18 199:1 | output 289:25 | 196:9 241:2 | p.m. $74: 7$ |
| 219:14 220:3 | 296:14 | owner 68:4 | 178:20 248:12 |
| orientation | outright 21:13 | 101:3 106:17 | 305:14 |
| 220:20 231:24 | outside 27:6,7 | 126:9 173:19 | p.o. $3: 5,95: 5$ |
| 238:2 | 102:22 165:23 | 193:3,6 197:21 | 6.0.15 8:6 53:10 |
| original 26:13 | 165:24 166:12 | 198:17 | pa $4: 18$ 8:11 |
| 26:20 43:10 | 185:14 213:6 | owners 12:13 | package $43: 10$ |
| 44:24,24 75:11 | 216:1 217:6 | 50:12 55:16,18 | chate $68: 16$ |
| 85:5 101:2 | 224:18 251:22 | 67:21 68:1 | 84:4,12 103:14 |
| 122:14 126:20 | 266:8 270:6 | 77:23 103:25 | packages 66:9 |
| 148:2 170:23 | outstanding | 104:7 105:8 | 66:24 67:14 |
| 180:17 183:19 | 44:10 | 123:23,25 | 68:25 69:9 |
| 207:13 255:18 | oval 274:1 | 124:7 125:7,20 | 179:12 |
| originally | overall 14:6 | 126:1,4 175:5 | packer 145:5 |
| 85:20 86:1 | 211:19 222:15 | 182:21 190:5 | 146:23 148:9 |
| 101:2 183:19 | 222:17 224:3 | 191:24 196:16 | $148: 11,16,17$ |
| 195:2 | 227:12 233:22 | 198:4,9,11 | 232:16 242:1 |
|  | 233:23 236:20 | 276:17 |  |

Page 57
[packet - party]

| packet 124:12 | 249:5 263:20 | 25:11 27:4,5 | 28:15 29:6,13 |
| :---: | :---: | :---: | :---: |
| 124:15 125:6 | 269:1 270:17 | 30:7 43:22 | 29:22 30:11 |
| 173:9 184:10 | 270:22,23 | 66:14 74:16 | 31:3 32:1 33:3 |
| 258:10 | 271:3 | 102:20 115:18 | 33:6 36:22 |
| pad 13:18 | paragraphs | 117:11,13 | 38:2 $39: 11$ |
| 184:14 186:3 | 16:4 210:19 | 118:24 119:7 | 46:25 47:13 |
| 253:1 259:6 | 214:10 270:8 | 119:18 120:1 | 50:24 58:4,9 |
| padilla 7:3,4 | 270:25 271:16 | 136:20 142:21 | 61:10 64:23 |
| 19:2,3 30:17,18 | 276:21 298:15 | 152:6,7 153:11 | 70:21 71:1,4 |
| 30:22,23 31:1 | parameters | 153:12 179:19 | 73:19 74:20 |
| pads 184:17 | 226:5 | 181:10 193:13 | 76:3 77:13 |
| page 10:2 16:3 | parent 207:9 | 195:20 232:12 | 79:2 87:20,21 |
| 44:19 46:14 | 207:13,17 | 258:9,13 | 101:22 105:12 |
| 66:15 67:24 | 212:17,20 | 270:11 296:25 | 121:15 124:10 |
| 76:8 84:23 | 225:7,10 | 300:18 | 124:17 125:5 |
| 88:6 90:2 | 226:20 227:14 | partake 47:13 | 129:5,12,22 |
| 123:13,14,23 | 228:8 233:11 | participate | 171:8,10 175:8 |
| 125:24 126:2,6 | 233:18 234:1 | 108:3 111:1 | 175:9 176:23 |
| 126:17 133:7 | 236:9,18,22 | 127:16 198:1 | 177:18 185:3 |
| 178:20 187:24 | 240:17,17 | 198:21 205:22 | 189:9 196:12 |
| 209:19,21,24 | 244:11 277:24 | 238:5 | 197:12,18 |
| 244:10 278:15 | 285:10,13,17 | participated | 199:7,8 265:1 |
| pages 71:23 | 285:19,22 | 106:1 | 300:13,24 |
| 165:20 209:23 | 286:1,7,21 | particular 46:6 | 301:8 302:25 |
| 269:22 | 288:6,12 | 77:20 91:8 | 303:20 304:16 |
| pair 289:17 | 289:10,17 | 149:13 226:3 | 306:11,14 |
| paper 43:5 | 290:18 291:12 | 279:2 296:2 | 307:8,11 |
| paperwork | 291:13 | particularly | partly 102:22 |
| 61:25 | parents 225:14 | 210:12 216:8 | 102:22 |
| paragraph | 286:11,23 | parties 12:5 | partners 260:3 |
| 89:8,11 118:21 | 287:2,8,12,22 | 17:17,17 19:11 | parts 66:9,23 |
| 121:11,12 | 287:25 | 19:13,16 20:9 | 74:21 139:5 |
| 167:11 172:21 | park 4:5 | 20:24 21:9,15 | party 26:20 |
| 189:25 190:12 | part 20:13 | 21:19,23 22:1 | 28:16 30:3 |
| 191:19 205:14 | 22:13,14,15 | 25:13,19 28:11 | 34:4 39:2,15 |

Page 58
[party - place]

| $53: 856: 15$ | $103: 23104: 6$ | permian $5: 2$ | $205: 14207: 21$ |
| :---: | :---: | :---: | :---: |
| $58: 1578: 6$ | $106: 23108: 8$ | $8: 932: 10,15$ | $208: 3210: 8$ |
| $82: 17139: 7$ | $127: 2,10130: 2$ | $34: 542: 20,23$ | $215: 14249: 5,7$ |
| $161: 6177: 22$ | $133: 3,10,16$ | $53: 2061: 5$ | $249: 20269: 5$ |
| $303: 4$ | $183: 11,21$ | $65: 273: 14$ | ph $3: 19,196: 18$ |
| paseo $5: 186: 5$ | $196: 15198: 14$ | $105: 15282: 18$ | $19: 230: 18$ |
| $7: 21$ | $286: 20291: 8$ | $293: 14$ | $34: 5,9,1453: 20$ |
| passed $252: 22$ | $292: 1$ | permission | $57: 265: 20,21$ |
| past $21: 725: 14$ | percentage | $193: 2$ | $70: 20139: 3$ |
| $142: 11226: 17$ | $106: 22123: 6$ | permits $177: 5$ | $145: 5146: 23$ |
| $260: 10303: 3$ | $129: 23,25$ | permitted | $146: 23147: 3$ |
| $303: 22$ | $130: 2132: 4,8$ | $185: 1$ | $148: 9,11,16,17$ |
| path $128: 1$ | percentages | person $94: 21$ | $232: 16241: 23$ |
| paths $186: 7$ | $127: 6$ | $97: 4208: 11$ | $242: 2251: 10$ |
| paula $5: 961: 4$ | perfect $49: 5$ | personal $130: 7$ | $252: 13,25$ |
| pay $63: 864: 1$ | $62: 11,1863: 3$ | perspective | $301: 7,11,12$ |
| 193:16 $302: 10$ | $65: 16,2391: 24$ | $33: 14$ | phillips $7: 18$ |
| pays $302: 6,6,18$ | $271: 12$ | persuasion | $73: 7$ |
| pdf $66: 9209: 21$ | perfected $43: 12$ | $76: 2479: 3,5,13$ | philosophies |
| peifer $6: 14$ | $62: 4$ | $79: 14$ | $36: 6$ |
| pending $200: 4$ | perfectly $114: 3$ | pertain $47: 1$ | phone $176: 10$ |
| $202: 13$ | $189: 22280: 5$ | $91: 10160: 24$ | $200: 6204: 6$ |
| pennsylvanian | perform $252: 20$ | $201: 7$ | physical $128: 6$ |
| $57: 11,19$ | $282: 6$ | pertained | $186: 5212: 7$ |
| penultimate | performance | $131: 2$ | pick $171: 11$ |
| $89: 12121: 12$ | $14: 14,17$ | pertaining | $221: 1231: 9,11$ |
| people $67: 19,22$ | $224: 12227: 23$ | $47: 21130: 19$ | picking $125: 12$ |
| $68: 2172: 9$ | $245: 14252: 17$ | $131: 3162: 24$ | $273: 23$ |
| $140: 20142: 16$ | $252: 19$ | $163: 8$ | picks $242: 6$ |
| $227: 15273: 24$ | performed | pertains $53: 12$ | pink $269: 8,9$ |
| $301: 18$ | $282: 10$ | pertinent $82: 7$ | pipeline $136: 14$ |
| peralta $5: 18$ | period $47: 10$ | $218: 17,19$ | pit $255: 8$ |
| $6: 57: 21$ | $50: 8113: 21$ | petroleum $95: 7$ | pits $255: 5$ |
| percent $58: 7$ | $143: 7$ | $97: 24134: 24$ | place $20: 5$ |
| $77: 2399: 14$ |  | $172: 23,24$ | $154: 10272: 21$ |
|  |  |  |  |

Page 59
[place - portion]

| 275:1 | pleadings 22:10 | 52:13 63:6 | 105:12,16 |
| :---: | :---: | :---: | :---: |
| placed 70:7 | 28:3 | 68:9 75:19 | 106:3 124:7 |
| 239:25 240:1 | please 67:12 | 77:15 83:11 | 127:17 183:13 |
| places 190:12 | 72:21 76:17,25 | 87:7 97:15 | 190:5 196:13 |
| plan 14:11 | 97:19 98:8,16 | 116:9,11 | 196:22 |
| 37:22 81:23 | 99:11 102:16 | 122:15 130:16 | pooling 12:18 |
| 137:5 138:24 | 103:10 105:4 | 131:16 143:6 | 29:8 33:19 |
| 139:8 152:20 | 107:10 108:20 | 143:22 161:9 | 44:2,18 45:14 |
| 173:25 185:5 | 135:8 153:17 | 163:25 166:4 | 46:12,14 50:3 |
| 186:25 192:16 | 156:20 164:9 | 167:1 169:11 | 50:14 53:3 |
| 215:7 222:5,7 | 167:1 172:6 | 181:6 192:21 | 54:4,14 57:10 |
| 223:1 228:22 | 173:5 182:10 | 195:14,15 | 57:19 58:8 |
| 233:16 234:8 | 187:23 189:12 | 197:8 268:3 | 60:1,5,8 62:5 |
| 234:20 258:15 | 204:19 218:1 | 270:18 274:17 | 68:7,24 77:5 |
| 258:16 264:24 | 235:25 244:2 | 276:6,10,13 | 78:20 106:2,4 |
| planned 82:4 | 248:18,23 | 279:10 290:25 | 121:5 140:13 |
| 218:12 | 267:23 268:18 | 291:6 | 140:16 141:6 |
| plans 81:4 | 271:21 280:21 | pointed 154:13 | 164:25 178:11 |
| 136:22 174:7 | 287:6 298:17 | 191:19 209:9 | 184:18,22 |
| 190:15 191:23 | 298:23 301:22 | pointing 136:25 | 190:2,3 191:9 |
| 192:2 193:5 | 305:4 | 147:25 | 197:6,19 198:8 |
| 196:17 215:15 | pleased 296:1 | points 21:2 | 198:22 199:10 |
| 216:6 224:6 | pleasure 76:23 | 26:17 79:23 | 219:14 220:2 |
| 236:17 | 304:4 | pool 43:14,20 | 234:25 |
| plat 126:17,20 | pllc 9:4 | 43:25 44:5,6 | poor 138:1 |
| 182:18 | plot 211:19 | 45:21,24 46:3,5 | 141:10 |
| plats 12:14 | 252:16 | 46:6,11,13,16 | porosity 272:19 |
| 67:16 68:11,12 | plotted 279:7 | 60:4,12 113:15 | 273:4 281:21 |
| play 116:4 | plug 259:2 | 116:25 143:17 | 283:6 |
| 183:24 185:4 | plus 52:768:18 | 175:7,8 197:2 | portal 31:12,14 |
| 295:19 | 92:23 143:1 | 245:7 | 35:20 182:3 |
| played 197:13 | pocket 171:18 | pooled 12:4 | portion 46:23 |
| pleading 44:3 | point 4:5 21:17 | 39:16 58:4 | 158:22 163:6 |
| 178:21 | 22:18 29:3,18 | 67:23 68:2,15 | 229:23,25 |
|  | 39:3 48:1,17 | 69:25 100:4 | 237:21 274:12 |

Page 60
[portion - prime]

| 278:14 284:9 | 280:1 284:11 | preparation | presenting |
| :---: | :---: | :---: | :---: |
| portions 60:8 | 285:2,2 290:8 | 205:23 206:1 | 70:10 76:15 |
| posed 163:6 | 294:9 | prepare 21:15 | 146:4 |
| position 24:21 | practice 115:22 | 175:2 205:22 | preserve 23:25 |
| 38:14 78:11 | 116:1 | 280:12 | president |
| 112:10 121:15 | pre 86:9 87:8 | prepared 41:14 | 249:10,12,14 |
| 122:1 124:20 | 114:1 124:12 | 102:14 113:5 | pressure |
| 195:10 249:9 | 124:15 125:6 | 123:10,18 | 240:19 242:10 |
| 300:12 | 266:1,3 | 144:2 145:25 | 242:12,13,14 |
| positions | preapplication | 146:11 156:2 | 247:9,16 |
| 121:16 | 125:6 | 173:9 175:14 | 272:14 276:9 |
| possibilities | preclude | 175:17 211:7 | pretty 71:10,12 |
| 22:23 | 139:14 | 218:6 256:9 | 99:9 106:11 |
| possibility | predecessor | 257:12 297:5 | 202:7 270:21 |
| 37:24 | 80:3 174:15 | 307:3 | 299:18 |
| possible 74:1 | 191:5 195:23 | preparing | prevent 240:14 |
| 286:25 288:25 | predict 190:8 | 173:13 221:24 | 240:20 241:5 |
| 292:5 | prefer 106:9 | 221:25 253:6 | 276:14 |
| possibly 101:23 | 241:9 | present 9:10 | preventing |
| 255:20 | preference 21:4 | 17:4 21:11 | 52:12 |
| post 54:21 | 36:4,8 106:3 | 36:22 62:3 | previous 36:5 |
| 300:10,14,15 | 288:21 | 67:7,8 107:7 | 300:12 |
| 303:21 304:1 | preferred | 121:16 231:24 | previously |
| posted 303:19 | 288:18 | 231:25 299:24 | 79:24 134:21 |
| potential 39:13 | prehearing | presentation | 172:22 219:13 |
| 177:4 194:24 | 35:8 74:6 77:3 | 67:7 74:17 | 220:15 221:5 |
| 235:18 240:18 | 82:19,22 83:1 | 138:18 201:15 | 268:25 |
| 242:14 276:16 | 83:10 111:17 | 203:20 | price 256:21 |
| potentially 33:7 | 151:21 167:22 | presented | primarily |
| 143:10 186:8 | 184:10 | 124:16 129:4 | 206:20 229:15 |
| pound 278:1 | prejudice 20:9 | 130:20 154:20 | primary 208:6 |
| 294:5 | 21:4 151:10 | 155:18 162:11 | 212:15 |
| pounds 141:17 | preliminary | 200:22 244:6 | prime 14:4 |
| 247:1,2 278:7 | 140:1 | 255:13 | 137:1 138:7 |
| 279:1,3,4,7 |  |  | 143:24 145:6 |

Page 61
[prime - properly]

| 147:11,13 | 248:23 268:22 | producing | 289:21 290:14 |
| :---: | :---: | :---: | :---: |
| 219:2 220:13 | 299:7 | 100:12 146:23 | 291:1,5,5 |
| prior 159:15 | proceeding 2:6 | 187:14 188:2 | 292:13 295:20 |
| 174:3 176:11 | 18:9 22:13 | 218:14,19 | 297:16,17 |
| 177:18 190:20 | 24:2 25:11 | 233:8 244:13 | productive |
| 301:12 306:5 | 37:17 57:4 | 245:10 246:16 | 233:25 285:16 |
| privy 39:13 | 61:17 64:2 | 290:13 291:7 | 285:20,23 |
| 191:2 | 65:6 74:8 | 296:18,19 | 286:2,21,23 |
| probably 61:20 | 181:6 305:15 | 297:13 | 287:9 290:9 |
| 79:11 85:13,24 | 307:4 | production | 295:24 |
| 89:7 151:10 | proceedings | 3:13 4:10 14:7 | productivity |
| 155:24 180:11 | 86:10 109:1 | 17:24 33:1 | 277:20 279:13 |
| 183:25 184:1 | 195:21 279:20 | 53:9 55:12,14 | 284:16,24 |
| 227:15 257:24 | 306:3,4,6,8 | 65:2 73:14 | 285:1 |
| 265:21 281:7 | 307:6 | 81:20 138:2 | progress 19:16 |
| problem 43:4 | process 21:13 | 142:23 149:5 | 20:2 |
| 63:19,19,20 | 99:24 129:6 | 158:11 186:19 | project 77:17 |
| 139:1 208:2 | 255:9 | 206:24 207:3 | prompted |
| 229:12 240:9 | produce 229:18 | 207:12,13 | 155:15 176:9 |
| 240:12 270:14 | 240:11 258:22 | 212:1,1,16,18 | 180:18 |
| problems 30:19 | 300:14 304:1 | 213:21,22,22 | prompting |
| 52:24,25 | produced | 214:1,14,17,20 | 179:2 |
| 228:22 | 114:13,14,15 | 222:16 223:22 | promptly 70:22 |
| procedurally | 114:21 187:17 | 225:14 228:13 | 155:10 |
| 28:23 | 213:25 214:5 | 233:20,22 | prop 211:25 |
| procedure | 236:6 290:15 | 236:18 237:4 | propensity |
| 82:11 280:5 | 290:19,21 | 237:13,13 | 284:10 286:1 |
| 300:3,11 | 291:12 292:1 | 245:18 250:14 | proper 20:5 |
| proceed 23:2 | producers 8:2 | 255:16 257:13 | 79:12 164:10 |
| 39:5 40:9 42:9 | 42:8 56:21 | 259:3 273:18 | 198:13 213:9 |
| 56:12,23 75:16 | 244:14 275:4,5 | 277:15,16 | 266:17 267:19 |
| 76:18 97:19 | 278:16 | 278:2,8 279:8 | 270:23 |
| 98:8,24 105:4 | produces | 284:14 287:4 | properly |
| 107:10 135:8 | 223:21 | 287:25 288:4,5 | 198:19 |
| 173:5,25 |  | 288:6 289:11 |  |

[property - pumping]

| property 193:3 | 225:12 226:13 | 279:12 284:13 | 123:6 |
| :---: | :---: | :---: | :---: |
| proposal 38:11 | 226:25 228:11 | 285:25 287:3 | provisions |
| 38:12,17,22 | 228:14 232:1,8 | 287:13,19,22 | 74:18 |
| 105:18 127:21 | 233:6 234:24 | 288:4,25 290:1 | proximity |
| 140:21 165:16 | 236:12 239:3 | 290:9 294:9,13 | 185:7 213:25 |
| 241:16 | 241:11 252:8,8 | 296:18,19 | 223:4 224:20 |
| proposals | 252:9,11 | 297:1 | 225:7,11,20 |
| 133:16 150:14 | 254:10 256:4 | proprietary | 233:6 234:5,6 |
| 150:15,17,18 | 276:6,10 280:5 | 302:24 | prudent 261:15 |
| 168:24 199:3 | 300:16,17,25 | proration | 261:17 263:5 |
| 203:13 257:19 | 301:1 | 141:24 144:1,8 | 263:17 264:8 |
| 288:22 | proposes 62:23 | 149:14 | 264:20 265:12 |
| propose 140:24 | 142:7 234:21 | prosecutor | 266:20 |
| 140:25 181:12 | 235:4 | 75:1 | prudently |
| 181:14 194:1 | proposing | protect 23:24 | 192:17 |
| 195:17 240:14 | 136:7,8,10 | 264:24 276:17 | public 2:8 |
| proposed 12:10 | 141:15 155:6 | protection | 103:2 306:22 |
| 14:10,15 67:15 | 158:23 159:8 | 80:25 | publication |
| 101:11 124:10 | 167:17 189:19 | provide 21:1 | 12:17 15:7,9 |
| 124:22 130:3 | 191:14 234:8 | 22:24 23:20 | 43:4,8 44:25 |
| 137:16 138:19 | 240:10 247:3,4 | 25:21 26:10 | 45:1 47:9 50:8 |
| 143:13 157:17 | 254:15,23 | 110:16,19 | 53:14 68:21 |
| 157:18 158:3,4 | 291:18 | 111:10 125:5 | 71:6 93:21,22 |
| 158:4,12 167:7 | proppant | 129:17 | publish 58:16 |
| 173:19 174:20 | 206:23 212:19 | provided 44:6 | published 47:4 |
| 174:23 183:4 | 212:19 213:25 | 44:7 46:9,10 | 47:7 50:9 |
| 185:2,5 187:15 | 223:25 224:2,7 | 47:17 51:2 | 68:23 |
| 190:4 192:7,18 | 224:22 225:2,8 | 52:19 118:14 | pull 65:25 |
| 196:16 198:1 | 237:24 245:13 | 118:17 124:21 | 122:25 226:10 |
| 199:11 218:12 | 246:16 247:1 | 125:20 205:13 | pulled 237:14 |
| 218:17,18 | 263:22,23 | 219:25 283:15 | pulling 60:6 |
| 219:3,15 | 264:13 265:20 | provides 58:3 | 122:20 |
| 221:11 222:25 | 266:6,15 | 58:10 63:16 | pump 256:22 |
| 223:14,16 | 277:22 278:19 | providing | pumping 238:1 |
| 224:3,4,18,20 | 278:23 279:1 | 81:14 118:22 | 256:18,18,19 |

Page 63
[pumps - rate]

| pumps 294:9 <br> purely 239:14 <br> purple 252:13 <br> purported <br> 85:17 198:7 <br> purporting <br> 111:11 | q | $\begin{gathered} \hline \text { questions } 47: 21 \\ 55: 4,2258: 18 \\ 59: 560: 17,21 \\ 71: 15 \quad 72: 4 \\ 82: 10 \quad 103: 20 \end{gathered}$ | $\begin{aligned} & \text { 234:11 } 277: 18 \\ & \text { quote } 279: 15 \\ & 286: 11 \end{aligned}$ |
| :---: | :---: | :---: | :---: |
|  | qualified 97:24 |  |  |
|  |  |  |  |
|  | 06:7 |  | r |
|  | quality 295:17 |  | r 3:14:1 5:1 6:1 |
|  | quarter 241:24 | $128: 4,10,13,17$ | 7:18:19:1 |
|  | 274:3,4 275:9 | 128:19 131:12 | 16:2 17:1 28:7 |
| purpose 1 | 275:10,17 | 132:16,19,21 | 77:4,7 94:13,13 |
| 80:3 181:22 | question 45:20 | 146:15 153:17 | 124:1,5,17 |
| 181:25 182:1 | 55:7 59:7 88:4 | 160:9 163:24 | 125:18,25 |
| 1:9 198:8 | 88:16 109:6 | 164:12,18 | 172:19,19 |
| 216:4 277:17 | 114:22 116:20 | 168:3 170:8 | 248:21 268:20 |
| purposes 62:5 | 119:21 127:9,9 | 181:2 194:6 | rack 14:5 81:15 |
| 68:5 | 133:21 139:24 | 203:17,18 | 138:15 154:7 |
| pushing 264:12 | 140:1,9 149:17 | 211:3 243:12 | 157:12 211:19 |
| put 31:4 35:14 | 151:2,2 153:6 | 243:22 244:1 | 215:11 221:5 |
| 60:11 70:12,15 | 156:3 160:19 | 248:1 261:25 | radius 222:19 |
| 70:16 79:8 | 162:9,15 163:6 | 263:10 267:23 | 225:21,22 |
| 99:17 141:13 | 163:11,12,18 | 271:18 280:12 | 245:8 273:25 |
| 142:1,15 161:6 | 163:20 164:9 | 294:15,20 | raise 96:1 |
| 172:3,4 180:8 | 168:22 184:6 | 295:23 296:5 | 236:14 |
| 231:4 232:24 | 194:10 200:21 | quick 23:20 | raised 262:23 |
| 233:16 255:16 | 200:23 201:14 | 76:1 200:20 | 263:18 267:22 |
| 262:15 264:23 | 221:22 235:25 | 244:5,22 | 268:4 |
| 265:7,17,23 | 237:16 238:15 | 263:14 304:7 | raising 230:3 |
| 266:8 271:17 | 239:5 240:7,24 | quicker 256:22 | range 28:7 |
| 283:3 284:21 | 241:8,21 242:9 | quickly 70:14 | 57:15,23 69:6,8 |
| 300:22 | 243:18 247:8 | 167:2 248:10 | 165:10 265:11 |
| putting 97:16 | 260:11 267:9 | 258:7 | rankin 5:10 6:7 |
| 183:23 212:6 $215: 6243 \cdot 2$ | 271:23 287:6 | quite 19:13 | 53:16,17,18,19 |
| $\begin{aligned} & \text { 215:6 243:2 } \\ & 265: 16289: 1 \end{aligned}$ | 92:11,12 | 22:10 114:16 <br> 132:25 140:12 | 64:24,25 65:7 |
| 265:16 289.1 | 302:16 | $183: 20.22$ | rarely 255:9 |
|  | questioning | 183:20,22 | rate $225: 2,14$ |
|  | 243:10 | 196:9 201:6,12 | 236:21 289:11 |
|  |  | 202:17 232:20 | 289:21 |

Page 64

## [rates - records]

| rates 257:13 | really $22: 14$ | reassure | recent 22:20 |
| :---: | :---: | :---: | :---: |
| rather 21:12 | 24:24 25:14,19 | 128:22 129:1 | recently $22: 21$ |
| 22:11,17 209:2 | 28:22 51:14 | 160:18 161:13 | 53:6 54:2 55:8 |
| 276:15 | 66:22 79:7 | rebuttal 74:1,2 | 184:18 252:14 |
| razzing 305:1 | 115:7 121:8 | 75:2,2,4,4,8,9 | 252:20 |
| rex 10:10 11:2 | 141:18 178:25 | 84:18,20 85:18 | receptacle |
| rdx 10:10 11:2 | 181:3 196:25 | 85:19 87:15 | 30:12 |
| reach 38:15 | 208:12 212:15 | 94:16 145:23 | reclaim 259:7 |
| 39:5 128:3 | 212:21,24 | 146:10 148:2 | recognize |
| 185:22 186:9 | 225:23 228:4 | 166:9 170:10 | 296:13 |
| reached 39:1 | 231:1,7 233:10 | 170:13 262:15 | recollection |
| 39:11 41:21 | 233:11 236:21 | 264:21 265:7 | 151:16 250:23 |
| 228:10 | 237:20 244:22 | 265:19 266:18 | 251:5 |
| reaching 38:24 | 247:18 248:7 | 267:10,19,21 | recommended |
| read 73:21 | 248:10 253:22 | 270:6 271:18 | 30:6 |
| 108:24 109:11 | 261:4 262:24 | 278:22 284:2 | reconvene |
| 109:11 111:24 | 273:9 278:10 | 299:4,24 300:5 | 171:22 |
| 116:3 121:8 | 298:19 | rebutting | record 30:7 |
| 149:18,23 | reason 25:12 | 262:18 263:13 | 57:1 58:19 |
| 194:15 252:18 | 51:11 80:10 | recall 43:2,15 | 67:25 68:3 |
| 267:6 270:2 | 113:6 115:14 | 162:3 | 83:16,17 97:13 |
| 282:21 | 116:8 125:11 | receipts 15:6 | 134:14,15 |
| reading 121:11 | 137:14 138:7 | 58:15 93:20 | 171:25 172:7 |
| 187:19 235:13 | 152:9,22 | receive 71:2,5 | 179:19,24 |
| ready $17: 7,8$ | 157:10,11 | 174:7 | 191:20 208:13 |
| 37:14,16 42:9 | 158:19 162:4 | received 53:6 | 248:14 258:13 |
| 56:12,23 75:16 | 166:16 179:17 | 54:2,19 56:1 | 268:17 270:3 |
| 235:11 268:4 | 179:18 183:9,9 | 58:14 59:3 | 270:21 299:22 |
| real 23:20 | 209:8 217:14 | 76:10 86:25 | 300:7 306:9 |
| 153:12 251:19 | 243:15 267:9 | 91:2 92:4 93:4 | 307:5 |
| realistic 215:17 | 289:21 | 94:4 99:21 | recorded 306:6 |
| realize 153:22 | reasonable | 170:1 174:9,13 | recording |
| 283:25 | 171:19 | 176:10 180:19 | 306:8 307:4 |
| realized 29:16 | reasons 188:18 | 182:7 203:12 | records 67:25 |
| 129:7 167:20 |  | 243:24 272:1 | 174:8,13 |

Page 65
[records - remember]

| 175:14 178:2 | redirect 132:18 | 147:15 158:14 | region 237:8 |
| :---: | :---: | :---: | :---: |
| 182:21 183:6 | 132:22 134:6 | 158:19 161:21 | 272:11 |
| recourse 194:2 | 153:4 164:17 | 161:24 178:24 | regional 218:11 |
| recovered | 164:22 203:25 | 184:3 197:16 | regulations |
| 272:22 | 204:3 246:10 | 201:1 202:11 | 78:5 |
| recovery | 246:12 262:5 | 227:4 241:25 | relate 229:13 |
| 216:22 224:8 | 294:23 296:7 | 247:19 274:9 | 246:23 |
| 225:3 235:23 | reduced 229:18 | 275:20 283:4 | related 31:24 |
| 236:7 238:7 | 234:1 306:6 | 292:8 297:13 | 32:23 210:13 |
| 245:2,9,18 | reduces 290:14 | refers 78:1 | 243:3 306:11 |
| 246:16 272:15 | reduction | refile 20:9 | 307:7 |
| 272:20,25,25 | 236:11 | reflect 97:13 | relation 147:22 |
| 273:16,18 | refer 23:11 | 124:15 126:4 | relative 264:25 |
| 281:20 283:7 | 143:20 148:1 | 158:22 182:22 | 277:12 306:13 |
| recross 157:5 | 214:10 271:21 | 251:7 | 307:10 |
| 168:8 296:9 | 289:14 | reflected 45:2 | relatively 233:6 |
| rectangle | reference | 124:5 132:3 | relaxed 217:17 |
| 219:22 239:13 | 130:18 186:2 | 148:10,16 | release 252:24 |
| red 136:24 | 201:10 254:21 | 149:9 154:11 | releasing |
| 219:22 238:19 | referenced | 177:20 178:1 | 252:25 |
| 238:21 239:13 | 45:21 47:12 | 183:5 252:5 | relevant 114:5 |
| 244:10 252:7 | 55:15 183:1 | reflects 123:24 | 180:6 |
| 252:12 278:18 | 184:22 186:10 | 125:25 126:8 | reliable 217:14 |
| redfearn 10:19 | 200:25 279:19 | 151:12 183:3 | 217:15,22 |
| 15:17 95:5,17 | 279:22 286:6 | 251:16 287:8 | relieve 29:14 |
| 96:19 120:11 | references | reformulate | rely 115:19 |
| 120:12,20,23 | 46:16 | 194:10 | relying 102:19 |
| 121:3 163:24 | referencing | refutes 284:24 | remain 174:16 |
| 172:15,18,18 | 297:16 | regarding | remanded |
| 173:8 180:21 | referred 81:15 | 103:21 109:18 | 27:10 |
| 182:13 186:14 | 117:23 227:5 | 214:14 263:22 | remedy 240:20 |
| 188:21 194:7 | 232:4 247:16 | regardless | 241:4 |
| 204:1 265:5 | 294:12 | 285:23 | remember |
| redfearn's | referring 88:12 | regards 247:19 | 23:12 47:3 |
| 172:21 | 117:22 146:21 | 271:19 | 49:2 62:25 |

[remember - result]

| 109:15,17 | reporting | rerelease | 34:1 37:8 57:2 |
| :---: | :---: | :---: | :---: |
| 110:12 127:22 | 302:22 | 252:18 | 61:15 65:2,13 |
| 149:20 194:12 | reports 31:12 | research | 293:14 |
| 194:12,17 | represent 133:7 | 174:12 | respect 34:9 |
| 195:3 228:23 | 255:21 | reserve 116:18 | 277:20 287:18 |
| 247:10,11 | representation | 121:14 156:1 | 291:13 297:3 |
| 257:23 297:8 | 85:24 221:4 | 177:3 200:11 | respected |
| 301:20 | 222:17 232:9 | 204:7 217:25 | 200:10 |
| remind 188:23 | 239:12 282:13 | reserving 41:2 | respectfully |
| remote 2:6 | representative | reservoir 91:10 | 121:13 177:2 |
| remove 80:4 | 236:8,14,18 | 155:10 206:2 | respectively |
| 101:10 | 239:16 272:10 | 208:3,5,7 | 218:21 221:20 |
| removed 108:5 | represented | 210:10,12,14 | respond 111:21 |
| rentals 254:25 | 144:22 147:15 | 211:8,11,14 | responded |
| repeat 98:16 | 255:24 279:24 | 212:4 215:13 | 109:10 143:13 |
| 235:25 302:16 | 285:19 293:12 | 216:11,25 | response 25:22 |
| rephrase 140:9 | 293:19 294:9 | 231:12 237:1,8 | 73:22,23 |
| 287:6 | representing | 237:17 238:1 | 109:12 111:15 |
| replacement | 32:15 33:24 | 243:1 246:19 | 118:14 120:8 |
| 232:18 | 34:1 48:24 | 263:8,10 269:3 | 125:10 140:4 |
| reply 180:18 | 72:23 196:21 | 272:11,18,20 | 146:12 176:5 |
| 200:5 | request 33:10 | 272:21 276:2 | 177:20 178:18 |
| reported 2:8 | 40:23 58:18 | 277:19 281:22 | 200:3 263:12 |
| reporter 17:4,5 | 61:22 119:13 | 282:14 284:20 | 293:2 |
| 17:8 24:18 | 119:19,24 | 292:7,15 | responsible |
| 82:14 99:6 | 162:13 163:7 | 295:16,17 | 107:17 |
| 110:3 111:24 | 188:1 242:24 | resolve 25:15 | rest 282:1 |
| 172:8 194:14 | 305:2 | 28:20 30:11 | 305:12 |
| 194:14 204:25 | requested 44:9 | 33:6 40:7 | resting 171:2 |
| 248:8 301:24 | 172:17 | resolved 29:12 | resubmit |
| 302:2,11,12,21 | requesting | 40:8 131:4 | 270:13,24 |
| 303:16 | 52:18 63:15 | resources 1:2 | 271:15 298:14 |
| reporter's | 164:2 177:3 | 5:15 6:18 7:2 | result 136:2 |
| 301:21 302:18 | required $22: 2$ | 19:2 25:18 | 228:12 247:5 |
|  | 186:5 | 30:18 31:23 | 256:4,22 |

Page 67
[result - room]

| 257:17 | 39:25 42:6 | 187:17,22 | 290:1,4,9 291:2 |
| :---: | :---: | :---: | :---: |
| resulting 257:2 | 54:13,20 60:16 | 203:22 204:10 | 291:3,8,16 |
| results 141:19 | 65:9 70:23 | 205:3,16,20 | 292:2 294:11 |
| 225:14 237:4 | 71:23 78:25 | 206:11 208:11 | 294:14 296:15 |
| 295:20 296:1 | 79:16 86:18 | 209:22 213:9 | 296:18 298:12 |
| resume 88:21 | 89:22 91:25 | 219:16,23,24 | 299:3 300:7 |
| 88:23 89:13,15 | 92:19 93:1,16 | 220:3 222:10 | 302:5 303:7 |
| 89:17 249:6 | 95:19 96:2 | 223:14 224:11 | 304:22 305:11 |
| 265:11 | 97:3 100:14 | 224:21 225:4 | 305:13 |
| retract 133:25 | 110:1 111:3,6 | 225:24 226:6 | rights 80:25 |
| return 68:22 | 111:12,22 | 226:11 227:1,9 | 264:25 276:17 |
| 234:7 | 117:18 118:8 | 228:18 229:3,6 | risk 138:14 |
| returned 53:8 | 118:11,12 | 229:9,11,19 | 223:3,6,6,22 |
| reverse 246:14 | 119:1,2,7,14 | 230:4,14 | 228:15 234:1 |
| review 21:16 | 120:2,12,15,16 | 231:18 232:9 | 240:14,17 |
| 24:1 89:14 | 120:21 121:7 | 234:9,22 235:6 | riskier 145:15 |
| 125:8,16 | 121:17 122:21 | 235:9 236:10 | road 237:10 |
| 144:18 145:16 | 122:24 123:11 | 239:2,13 | 257:18 |
| 269:12,22,23 | 124:8,18,19 | 241:21 244:10 | roads 185:12 |
| reviewed 22:15 | 125:21 126:17 | 244:17 245:19 | rock 4:2 32:4 |
| 140:16 155:2 | 126:18 129:14 | 246:17 247:17 | 32:25 33:4,5,9 |
| 168:17 183:6 | 130:22 131:4 | 248:12 249:18 | 35:25 |
| 269:15 | 132:15 146:23 | 250:17 251:14 | rock's 33:14 |
| revise 298:16 | 147:9 148:12 | 251:23 253:4 | rodriguez 4:3,4 |
| revised 16:6 | 150:1 155:14 | 253:10 254:1,4 | 32:3,4,17,19,25 |
| 86:15,19,20 | 156:3 157:14 | 254:6 256:6 | 33:13,20 34:2 |
| 103:21 123:5 | 157:18,24 | 257:20,25 | 35:4,23,25 |
| 183:2,17 196:7 | 158:5,8,13 | 269:21 272:10 | 36:13 |
| 224:6 299:15 | 159:5,9,21 | 281:6,8 282:22 | roehl 4:18 8:11 |
| revising 85:2 | 165:5 167:10 | 283:2,11,23 | role 211:14,14 |
| revoking 200:8 | 167:17 168:14 | 285:17 286:15 | 211:16 212:15 |
| rig 252:24,25 | 168:19,25 | 286:21 287:9 | 213:17 214:2 |
| right 18:22 | 174:25 175:21 | 287:22 288:6 | room 34:21 |
| 22:4 23:15,25 | 177:23 178:6 | 288:11,20 | 99:9 215:14 |
| 29:13,21 39:19 | 181:5 186:4,20 | 289:12,22 | 231:5 265:22 |

Page 68
[room - saw]

| 266:4 | S | 68:14 70:2 | sands 160:22 |
| :---: | :---: | :---: | :---: |
| rough 106:20 | ( 3:14:1 5:1 6:1 | 81:9,10,13 | 293:20 |
| roughly 108:8 | 7:1 8:1 9:1 | 136:18,20,24 | sandstone |
| 220:23 221:1 | 12.113 .114 .1 | 137:2,12,15,18 | 13:22 219:1 |
| 228:4,5 254:14 | 15:1 16:2,2 | 137:25 138:4,8 | 220:18,22,25 |
| 277:25 278:1,6 | 17:1 204:21,21 | 138:8,12,15,16 | santa 2:7 3:6 |
| 289:8 | 204:22 205:9,9 | 138:17,23 | 3:10,17,24 4:14 |
| royalty 58:9 | 205:9 248:20 | 139:2,12,14 | 5:6,13,19 6:6 |
| 175:7,8 198:4 | 268:20,20 | 141:17,23 | 6:10,22 7:6,10 |
| rr 252:22 | s.k. 5:15 61:14 | 142:5,6 145:9 | 7:16,22 8:7,19 |
| rule $74: 3,4,12$ | 62:1,22 | 145:10,12 | 31:21 36:24 |
| 74:16,22,23,23 | safe 226:7,10 | 148:21,22,24 | 61:4 64:25 |
| 102:10,14,15 | 259:3 | 149:1,1,6,10,12 | 73:12 |
| 102:19 | safer 278:25 | 152:11,19,20 | satisfy 44:21 |
| ruled 243:16 | salgado 10:3,11 | 153:1,8 157:14 | saturation |
| rules 74:17 | 94:12 96:4 | 159:1 161:2,5 | 272:19 283:7 |
| 86:9 111:16 | 97.21 98:12 | 161:11,19 | savage 3:14,21 |
| 115:12 116:3,4 | 99:13 103:4,21 | 167:12,16,21 | 17:22,23 22:7,8 |
| 161:10 190:4 | 107:12 108:24 | 168:12,15 | 23:8,12,19 |
| 209:8,11 213:1 | 109:3,7 110:2 | 218:16 220:8 | 24:23 26:10,11 |
| 217:16 239:24 | 115:20 116:23 | 221:9,11,15 | 26:12 27:18,21 |
| 240:4,10,13 | 117:9 118:7 | 223:5,11 224:3 | 28:1,10,14 29:5 |
| ruling 156:5 | 128:13,20 | 227:20 230:17 | 29:11 65:18,19 |
| run 43:8 47:9 | 130:4 131:21 | 231:14 232:14 | 65:20 |
| 50:8 82:9 | 132:24 176:3 | 232:17,19 | saw 75:19 |
| 175:14 244:22 | 177:9 180:18 | 233:12,20 | 87:14 111:23 |
| 257:12 | 182:15 197:4 | 234:11,21 | 114:1,25 |
| running 82:5 | salvidrez 9:13 | 237:24 240:15 | 125:11,18 |
| 255:24 292:14 | 31:5,9,13 34:15 | 241:17,18 | 138:14 146:11 |
| runs 46:7 | 34:24 35:19 | 245:10 247:24 | 150:17 153:7,9 |
| ryan 7:19 73:6 | $41: 542: 14$ | 256:19 275:2,5 | 153:23 157:18 |
| 73:7 | 49:15,19 62:11 | 275:6 276:8 | 177:7 228:22 |
|  | 62:14,17 | 278:15 279:21 | 229:18 262:25 |
|  | $\begin{aligned} & \text { sand } 13: 24 \\ & 15: 21 \quad 46: 7,8 \end{aligned}$ | 293:17 294:4 | 301:6 |

Page 69
[saying - section]

| saying 20:20 | 217:19 224:18 | 158:23 159:1 | 78:6 80:13,14 |
| :---: | :---: | :---: | :---: |
| 36:7 38:1 54:9 | 225:6,24 | 167:7,12,16,21 | 98:12,17 |
| 79:12 114:7,9 | scott 118:8 | 168:11,15,18 | 100:19,24,25 |
| 147:21,22,24 | 120:16 133:24 | 168:23,25 | 101:7,7,11,16 |
| 158:24 183:15 | 176:7,11,17 | 169:3,5,6 | 101:17,18,22 |
| 197:20 214:13 | 177:16,19 | 187:24 218:16 | 102:1,2 106:11 |
| 232:6 240:3 | 200:1,10 201:1 | 218:20 220:8 | 108:8,11 |
| 260:20 278:11 | 201:10 | 220:22,25 | 109:19 114:8 |
| 302:25 | screen 252:3 | 221:11,15,19 | 114:10 117:1 |
| says 74:7,13 | 257:25 268:7,9 | 221:20 223:5 | 117:13,15 |
| 89:12 93:18 | scroll 187:23 | 223:11 224:12 | 126:9,17,20,23 |
| 102:21 118:10 | sec 51:11 | 227:20 228:23 | 128:3 131:3 |
| 118:23 119:1 | second 13:23 | 229:13 230:7 | 135:12,22 |
| 119:11 121:13 | 14:13 43:17,21 | 230:13,18 | 136:3,12,12,18 |
| 121:18 126:21 | 46:8 68:16 | 231:14 232:7 | 136:25 137:16 |
| 162:19 182:19 | 81:8,10,13 | 232:14,19 | 137:19,22 |
| 195:17 230:16 | 84:21 118:22 | 233:3,12,20 | 138:6,11 139:3 |
| 233:5 239:12 | 122:17 125:24 | 234:4,6,19 | 143:24 145:1,6 |
| 294:4 | 133:6,20 | 235:5 240:15 | 145:11,18 |
| scales 180:9 | 134:17 135:3 | 241:10,17,18 | 146:22 147:2,5 |
| scenario 202:16 | 136:18,20,24 | 241:19,23 | 147:9,11,13 |
| 203:6,8 | 137:2,6,15,18 | 245:9 247:14 | 148:2,3 150:25 |
| scenarios 285:3 | 137:25 138:4,8 | 247:24 253:24 | 158:2,18,21 |
| schedule | 138:8,12,15,15 | 254:21 258:7 | 159:13,15 |
| 199:12 | 138:17 139:14 | 259:15 264:1 | 160:2,3 161:15 |
| scheduled 74:8 | 141:5,22 142:5 | 269:12 274:23 | 161:20 168:13 |
| 195:2 199:15 | 142:6 143:25 | 275:2,4,6 276:7 | 174:16,24,25 |
| scheduling 35:5 | 144:5,22 145:9 | 276:8 278:15 | 176:19 178:5,6 |
| 35:7,9 40:16 | 145:24 148:21 | 279:21 288:17 | 182:18,25 |
| schill 3:15,22 | 148:22 149:1 | 289:1 291:6 | 188:3 190:19 |
| 65:20 | 149:11 150:12 | 293:17,19 | 190:20 191:1,6 |
| scope 165:23 | 152:20 153:14 | secondly | 191:8,11 192:2 |
| 165:24 166:13 | 154:6,7,7 | 183:12 194:20 | 192:8,19 |
| 212:23 213:13 | 155:11,12 | section 14:3,12 | 193:13,25,25 |
| 214:13 217:6 | 157:13,22 | 58:12 69:2,3 | 194:22,22 |

Page 70
[section - september]

| $195: 5,18201: 7$ | $58: 664: 21$ | $291: 24294: 14$ | sending $176: 12$ |
| :---: | :--- | :---: | :--- |
| $214: 19219: 2$ | $66: 14,1567: 1$ | $299: 18$ | $177: 18$ |
| $219: 11220: 13$ | $71: 2082: 19$ | seeing $118: 3$ | sends $165: 17$ |
| $220: 20223: 1$ | $83: 1084: 6,13$ | $125: 5163: 1$ | sense $34: 11$ |
| $224: 20226: 23$ | $84: 1989: 18$ | $220: 6289: 11$ | $40: 21,23,24$ |
| $228: 12229: 19$ | $90: 3,595: 14$ | seek $23: 25$ | $114: 10163: 5$ |
| $230: 13231: 5$ | $104: 15114: 17$ | seeking $141: 4$ | $166: 19187: 1,7$ |
| $231: 22237: 21$ | $114: 17115: 10$ | $192: 11,14$ | $189: 23191: 7$ |
| $238: 19239: 10$ | $120: 6,9,10$ | $197: 2$ | $277: 12299: 15$ |
| $239: 18,18$ | $121: 9123: 8,16$ | seeks $57: 10,18$ | $301: 16$ |
| $241: 24242: 11$ | $124: 2,4126: 2$ | $80: 5187: 13$ | sent $24: 25$ |
| $242: 15274: 4$ | $131: 11141: 8$ | seem $135: 2$ | $68: 1776: 2$ |
| $274: 13,13,15$ | $144: 24145: 8$ | $143: 15165: 10$ | $122: 4,5150: 13$ |
| $275: 14,17,18$ | $147: 19149: 16$ | $245: 25301: 9$ | $151: 15176: 7$ |
| $279: 21294: 1$ | $149: 25150: 5$ | seems $23: 13$ | $180: 17,22$ |
| sectional | $150: 15,19$ | $45: 19138: 9$ | sentence $89: 13$ |
| $239: 15$ | $155: 7165: 4$ | $142: 18159: 14$ | $118: 22121: 12$ |
| sections $57: 14$ | $166: 19169: 13$ | $169: 4194: 24$ | $121: 13187: 16$ |
| $57: 2260: 4$ | $169: 13186: 16$ | $196: 18225: 18$ | separate $60: 10$ |
| $69: 5,780: 4,15$ | $195: 19197: 13$ | $232: 12233: 13$ | $69: 2270: 3,4$ |
| $81: 16128: 2$ | $204: 25209: 24$ | $239: 1,1267: 10$ | separates |
| $143: 8144: 19$ | $221: 16223: 12$ | seen $120: 19$ | $154: 10$ |
| $144: 23,23,25$ | $227: 12229: 15$ | $155: 3165: 18$ | separation |
| $148: 1157: 23$ | $230: 7,18,20$ | $209: 1254: 12$ | $148: 25149: 2$ |
| $158: 1,15163: 3$ | $231: 19236: 11$ | $254: 16255: 4$ | $149: 11152: 19$ |
| $173: 19186: 2$ | $239: 20240: 13$ | $286: 12295: 20$ | $152: 23153: 23$ |
| $239: 19$ | $241: 16245: 4$ | $296: 1$ | $228: 6247: 23$ |
| secure $43: 19$ | $252: 2,9,12,16$ | segregation | september $2: 3$ |
| see $22: 2529: 20$ | $253: 21254: 1,1$ | $153: 13$ | $42: 1843: 6$ |
| $37: 1042: 16,18$ | $255: 2,11,17,21$ | selected $245: 4$ | $47: 649: 1$ |
| $43: 2544: 15,15$ | $256: 14257: 1$ | self $84: 8134: 20$ | $79: 2583: 18$ |
| $44: 1945: 15$ | $258: 9266: 2,3$ | $269: 11,14$ | $87: 1288: 13$ |
| $46: 11,2048: 4,8$ | $269: 10,23$ | $276: 21$ | $90: 7147: 6$ |
| $49: 2351: 1,13$ | $286: 15,16$ | send $129: 20$ | $151: 22154: 20$ |
| $51: 2553: 15,16$ | $287: 12290: 7$ | $176: 9303: 14$ | $172: 1237: 14$ |
|  |  |  |  |

Page 71
[serious - silent]

| serious 30:10 | sharon 5:16 6:3 | 120:5 122:13 | 253:12 254:7 |
| :---: | :---: | :---: | :---: |
| served 76:9 | 18:4 61:20 | 123:2 143:25 | 256:2 268:24 |
| service 76:8 | sharoon 61:13 | 149:12 155:18 | 275:14 277:10 |
| services 302:22 | she'll 164:1 | 155:20 184:1 | 277:11 284:24 |
| set 14:8 30:2,8 | sheet 42:12 | 184:14 186:14 | 288:3 |
| 33:10 39:17 | 83:23 | 218:8,14,23,24 | side 46:16 |
| 41:5 63:2 77:4 | sheets 175:14 | 218:25 220:11 | 129:2 147:19 |
| 77:8 85:20 | sheila 9:14 | 220:15 221:2 | 162:23 203:8 |
| 100:25 208:24 | short 176:21 | 221:21 222:21 | 203:19 215:8,8 |
| 222:16 231:10 | 204:2 | 224:11,16,21 | 227:7 244:10 |
| 238:9 267:7 | shortly 99:23 | 225:1,5 226:12 | 253:21 255:14 |
| 279:11 288:7 | 174:2 190:23 | 226:13,18 | 255:17,18,21 |
| sets 133:9 | should've 85:20 | 227:3,22,24 | 256:14,17,25 |
| setting 19:17 | 90:4 114:14 | 228:3,7 230:10 | 263:4 278:5 |
| 41:3 | 265:17 | 232:3 238:18 | 285:5 295:2 |
| seven 271:4 | show 26:12 | 252:6,17,19 | sides 256:14 |
| 302:2 303:10 | 55:2 81:23 | 254:2 257:24 | sign 109:22 |
| 303:14,15 | 103:22 123:20 | 258:1,8 270:18 | 110:8 197:18 |
| seventy 251:12 | 130:1,2 144:4 | 277:8 284:9,11 | signals 187:6 |
| several 18:12 | 145:1,11,23 | 289:8,19,19 | signatory 113:4 |
| 33:2 77:17 | 152:18,22 | shown 58:4 | signature 68:3 |
| 137:3 279:19 | 153:23 165:9 | 151:13 152:11 | 68:8 306:20 |
| shaheen 5:16 | 174:18 176:3 | 219:3 220:14 | 307:17 |
| 6:3 18:3,4 | 184:13 217:13 | 221:2 281:12 | signed 106:6 |
| 23:22,23 24:4,7 | 222:10 239:10 | 281:17 293:2 | 111:10,11 |
| 24:12 61:12,14 | 242:18 250:6 | 293:25 | 196:13,24 |
| 62:20,22 | 252:1 253:10 | shows 21:22 | 198:25 199:4 |
| shakes 199:16 | 256:8,20 258:6 | 67:25 68:15 | significant |
| shale 57:11,19 | 273:13 276:23 | 71:1 144:6 | 19:16 133:11 |
| shanor 3:4 8:5 | 281:24 | 147:8 148:24 | significantly |
| 56:20 | showed 88:25 | 149:3,15 | 25:15 |
| shape 267:18 | 176:3 178:15 | 151:10 152:10 | signing 111:1 |
| share 198:9 | 239:17 277:23 | 153:12 158:20 | 197:5 |
| shared 302:24 | showing 68:12 | 174:19,23 | silent 99:9 |
|  | 68:17 118:2 | 230:17 250:8 |  |

Page 72
[similar - smaller]

| similar 103:17 | 122:8 125:3,13 | 229:4,7 230:5 | sisk 4:18 8:11 |
| :---: | :---: | :---: | :---: |
| 141:14 207:11 | 125:15,22 | 230:15,20,24 | sit 225:24 |
| 226:16 256:15 | 126:11 127:12 | 232:5,20 235:7 | sitting 111:14 |
| 278:7 | 127:15 128:25 | 235:17 238:8 | situation 45:21 |
| simple 51:11 | 129:9,10,15 | 238:22,23 | 176:22 243:18 |
| 271:2 277:20 | 130:7,11,21,25 | 239:23 241:6 | situations 77:5 |
| simply 23:24 | 131:6,9,17 | 241:12 242:4 | 197:5 |
| 65:15 101:13 | 132:12 133:18 | 243:25 244:4,7 | six 75:1 151:17 |
| 114:10 192:18 | 135:15,25 | 244:25 245:21 | 165:20 170:8 |
| simultaneously | 136:5,16,19 | 245:23 246:4,8 | 207:12 215:23 |
| 295:11 | 137:9,14 | 247:4,7 248:19 | 249:16 |
| singling 304:24 | 138:22 140:14 | 249:8 250:5,16 | size 211:25 |
| sir 32:14 36:3 | 140:19,23 | 250:20,24 | 273:21 277:15 |
| 42:3 45:8 | 141:3,7 142:13 | 251:13,24,25 | skills 306:10 |
| 47:22 48:18 | 142:24 144:3,6 | 252:4 253:5,9 | 307:6 |
| 49:4 51:21 | 144:20 146:24 | 253:14 254:5 | skinniest 159:2 |
| 54:11 56:5,8,12 | 147:7,10,16 | 256:7 258:5,12 | skipping 42:13 |
| 57:5 58:25 | 149:10 150:13 | 258:19 259:18 | slides 212:7 |
| 64:19 67:2 | 151:6 156:20 | 260:8,11,18 | slo 121:14 |
| 72:25 73:5 | 157:15,25 | 261:8,8,10,16 | 176:17 |
| 83:6,13 87:6 | 159:10 160:8 | 268:19 271:3 | slow 66:12 |
| 90:10 95:25 | 160:10,16 | 273:6,20 274:6 | 71:19 107:9 |
| 98:20 100:1,6 | 165:19 167:9 | 274:18,24 | 122:25 142:14 |
| 100:17 101:1 | 169:8 173:3 | 276:24 278:12 | 162:22 |
| 102:9,12 103:9 | 190:22 196:18 | 278:14 280:16 | small 67:21 |
| 103:15 104:1 | 199:24 204:15 | 281:9,14 284:7 | 108:7 121:8 |
| 104:14,25 | 204:20 205:24 | 287:10,23 | 127:7 129:22 |
| 105:10 106:1,4 | 206:10,15,25 | 288:8,19 292:8 | 196:9 198:15 |
| 106:13,18 | 207:5,18 210:9 | 292:23 293:5,7 | 198:15 242:13 |
| 107:19,22 | 210:16 211:16 | 293:24 294:6,8 | 242:21 247:9 |
| 109:4,8,10,14 | 212:11 219:9 | 294:17 295:1 | 247:16,19 |
| 109:16,21 | 219:12 221:23 | 295:15,18 | 272:23 274:2 |
| 110:4,11,15 | 222:3,9 225:18 | 296:2 297:15 | 276:2 |
| 111:19 116:1 | 225:19 228:16 | 297:22 298:20 | smaller 28:21 |
| 120:4 121:8,23 | 228:19,24 |  | 225:21 |

Page 73
[smart - spent]

| smart 216:8 | 280:16 285:24 | southeast 274:3 | 109:3 120:3 |
| :---: | :---: | :---: | :---: |
| smattering | 292:9 298:5 | 274:3 | 121:23 190:10 |
| 236:16 | 299:25 | southernmost | 214:8 241:6 |
| software 147:3 | sort 40:18 | 274:12 | 247:18,20 |
| 147:5 211:10 | 155:22 205:13 | southwest | 250:23 260:25 |
| 211:11 | 225:2 253:11 | 220:19 226:23 | 261:19 286:14 |
| softwares 211:9 | 255:12 | 226:24 | 299:11 |
| sole 100:14 | sorted 34:8 | space 57:13 | speaking 26:6 |
| solid 154:18 | sought 25:4 | 214:4 228:4 | 62:16 187:4 |
| solution 25:16 | sound 111:23 | 240:15 277:21 | 193:6 202:21 |
| 29:13 | 163:19 | spaced 278:5 | 202:22 291:9 |
| somebody | sounded 41:13 | 291:11,13 | specific $23: 9,17$ |
| 302:9 | 147:23 | spacing 14:17 | 52:16 86:4 |
| soon 76:1 | sounds 35:11 | 57:13,16,20,24 | 108:1 115:12 |
| 181:13 271:9 | 35:16 41:8,11 | 60:2,11 69:23 | 187:8,8 202:20 |
| sorry 46:2 57:1 | 41:12,17,24 | 69:24 70:3,5 | 211:15 260:14 |
| 57:21 84:3 | 62:11,18 78:25 | 81:6,7,18 | 286:13,22 |
| 93:14 95:10,22 | 91:18 171:19 | 102:21,25 | 287:10,23 |
| 98:15 104:1,14 | 301:20 | 162:13 163:7 | 290:16 297:3 |
| 104:24 109:24 | sour 139:8 | 164:3 175:17 | specifically |
| 110:9 112:1 | 161:7 258:17 | 175:19 185:14 | 145:4 182:25 |
| 126:13 130:10 | south 7:5 57:15 | 187:15 188:12 | 195:22 206:18 |
| 130:10 136:10 | 57:23 69:1,2,3 | 192:7 200:24 | 208:21 260:13 |
| 145:2 150:22 | 69:5,6,7 101:7 | 212:2 213:24 | specifics 253:19 |
| 157:19 159:19 | 101:18 135:21 | 214:21 221:9 | 260:18 |
| 160:13 162:16 | 135:24 136:1,3 | 226:18,20,25 | speculative |
| 168:14 181:16 | 136:11 138:5 | 227:11,22 | 274:17 276:10 |
| 187:12 191:17 | 141:23 143:11 | 228:8,11 | 276:13 |
| 206:6 209:22 | 190:20 191:1,8 | 233:11,15 | speed 121:21 |
| 210:23 218:4 | 218:13 226:3 | 236:15 237:4 | spell 172:7 |
| 219:12 235:24 | 231:23 244:16 | 238:13 240:1 | 204:19 248:17 |
| 236:3 240:8 | 251:24 274:2,2 | 265:20,20 | 268:17 |
| 253:25 257:3 | 274:13,15 | 289:9 290:13 | spelled 172:18 |
| 257:25 259:9 | 294:1 | speak 38:2 | spent 253:17 |
| 260:18 279:18 |  | 40:19 103:11 |  |

Page 74
[sperling - stated]

| sperling 4:18 | 153:1 154:5,6 | spurts 20:17 | 68:6 76:9 78:7 |
| :---: | :---: | :---: | :---: |
| 8:11 32:9 | 155:6 157:13 | squared 279:15 | 99:14,20 100:8 |
| 36:18 | 158:23 160:21 | st 7:5 | 102:22,25 |
| split 66:24 | 161:2,11,18 | stage 238:1,2 | 103:5,17 104:4 |
| 194:15 | 162:5 167:6,7 | staked 184:15 | 104:13,18 |
| spoke 61:21 | 167:12 168:12 | stakes 219:4 | 107:2 108:4 |
| 200:6 273:8 | 168:15,18,24 | 278:17 | 117:23 119:11 |
| spoken 119:8 | 169:6 187:4,10 | stand 39:6 | 119:22 120:3 |
| 189:17 | 187:15,17,21 | 252:23 284:23 | 120:16,20,24 |
| spotfire 211:10 | 188:2,6 189:25 | standalone | 121:3,19,23,25 |
| spread 101:13 | 200:2 218:16 | 286:6 288:12 | 122:10 130:19 |
| spreadsheet | 219:1 220:8,18 | standard 57:12 | 136:23 145:5 |
| 12:16 50:11 | 220:22,25 | 57:13,20 58:3 | 146:23 148:11 |
| 51:6 52:1 53:2 | 221:9,11 | 58:10 209:10 | 148:16,17 |
| 53:7 54:3,23 | 224:12 228:23 | standpoint | 167:12 172:6 |
| 55:9 68:20 | 229:13 230:14 | 224:24 225:7 | 174:21,22 |
| 71:1 | 230:18 232:7 | 227:13 228:8 | 175:13,22,25 |
| spring 13:22,23 | 233:4 234:19 | 231:2,4 233:23 | 176:7,25 177:3 |
| 14:13 15:21 | 234:20,21 | 272:13 | 177:12,21 |
| 46:7,8 68:13,14 | 235:6 241:10 | stands 266:21 | 178:1,4,8 180:8 |
| 69:25 70:2 | 241:11,18,20 | staring 274:7 | 180:18,22 |
| 81:9,11,13 | 241:23 245:10 | start 17:7 29:3 | 186:4 190:11 |
| 136:18,20,24 | 247:14,24 | 61:19 67:4 | 190:15 191:22 |
| 137:6,8,13 | 254:22 258:17 | 72:11 90:12 | 199:25 200:8 |
| 138:20,21,23 | 259:15,17 | 99:17 189:16 | 204:5,6,18 |
| 139:2,12,14,16 | 274:23 275:2,5 | 236:21 276:24 | 229:6,6,9 242:2 |
| 140:22 141:2,5 | 275:6 278:15 | 277:1,4 | 248:17 255:7,8 |
| 141:23 142:12 | 288:17 289:2 | started 142:9 | 263:3 268:17 |
| 143:25,25 | 293:19 | 142:14 174:5,7 | 282:13 306:23 |
| 144:5,22 | springs 293:17 | 201:25 | stated 34:2 |
| 145:24,25 | spunning | starting 192:19 | 106:8 111:17 |
| 148:24 149:1,6 | 252:25 | 221:8 267:22 | 113:16 114:18 |
| 149:10 150:11 | spurred 142:16 | 295:2 | 129:3 131:8 |
| 150:12 151:16 | 142:18 | state 1:134:25 | 160:20,21 |
| 152:11,19,20 |  | 35:21 57:17,25 | 162:5,6 183:19 |

Page 75
[stated - subsequently]

| 243:10 244:9 | 34:10,22 35:1 | 87:16 94:13,16 | 130:18 131:2,3 |
| :---: | :---: | :---: | :---: |
| 273:14,15 | 35:13,21 37:12 | 96:14 262:21 | 131:5 162:24 |
| 277:5 282:12 | 37:18 40:5 | 263:1,9,21 | 175:17 201:11 |
| 282:14 286:22 | 41:3,6,18,20 | 264:7 267:5 | 278:16,17 |
| statement 10:7 | 144:22 184:25 | 268:20,23 | subjective |
| 10:876:25 | stay 20:5 202:7 | 269:11 272:6 | 284:18 |
| 77:3 79:20 | 284:17 | 294:25 296:11 | submission |
| 82:19,22 83:10 | stayed 25:8 | 298:6,17 | 155:15 156:12 |
| 84:8 87:15 | 27:20,22 | straight 87:17 | submissions |
| 105:25 119:20 | staying 194:4 | streamline | 300:14,15 |
| 133:17 134:20 | step 90:20 | 215:22,22 | 303:21 304:2 |
| 140:18 182:15 | 144:15 226:2 | street 3:16,23 | submit 30:4 |
| 197:15 198:10 | 227:17 | 4:19 8:12 | 70:9 130:11 |
| 200:5 206:5,14 | steptoe 9:4,7 | stricken 243:4 | 134:23 179:18 |
| 216:14,16 | 73:2 | strictly 75:5 | 181:10 182:3 |
| 269:11 276:21 | stimulation | 213:2 | 271:9 300:24 |
| 283:3,11 | 246:21 256:17 | strike 72:17 | 303:21 |
| 289:14 290:23 | stipulate 90:13 | 73:20 75:20 | submittal 50:21 |
| statements 74:6 | 91:15 | 85:14 153:20 | submitted |
| 76:20 87:8 | stipulated | striking 33:5 | 48:13 50:22,23 |
| 114:2 | 87:23 92:15 | string 255:16 | 53:5 55:8,19 |
| states 97:22 | stipulating 86:5 | 255:22 | 80:10 124:13 |
| 187:24 | 91:19 | structure 13:21 | 135:11 145:25 |
| statewide 190:4 | stipulation | 58:11 135:12 | 148:3 151:22 |
| 225:21 239:24 | 86:21 90:25 | 135:14 218:25 | 169:14 179:11 |
| 240:4 | 92:2 93:2 94:2 | 220:9,14 | submitting |
| stating 77:4 | stipulations | study 224:17 | 265:2 |
| 200:3 | 87:21 | 226:22 273:5,7 | subpart 74:11 |
| status 18:7 | stop 48:20 | stuff 92:22 | subparts 88:8 |
| 19:17,24 21:11 | 135:3 253:24 | 136:14 155:22 | 92:12 93:6 |
| 21:15,20,22 | 270:1 | 162:20 213:17 | subsequent |
| 22:12 24:23 | storm 20:15 | 299:9 | 50:19 141:6 |
| 25:20,22 30:6,8 | story 176:21 | sub 277:12 | subsequently |
| 30:9 31:12 | stowers 11:6 | subject 74:18 | 139:15 |
| 32:24,24 33:10 | 84:9,17 85:17 | 114:12 118:10 |  |

[substantial - takeoff]

| substantial | 105:17 106:21 | 263:12 266:25 | tab 89:1 |
| :---: | :---: | :---: | :---: |
| 77:24 257:17 | 106:22 127:2 | 267:25 268:5 | table 28:20 |
| substitute 68:7 | 133:15 186:18 | 295:23 296:8 | 88:6 |
| subsurface | 186:22 187:7 | surface 106:15 | take 23:6 37:20 |
| 257:9 | 187:20 188:5,5 | 106:16,17,18 | 45:11 48:7,16 |
| succeeded | 188:19 189:18 | 127:20 135:16 | 49:14,22 51:4 |
| 173:22 177:25 | 196:14,23 | 136:2,12,13 | 52:21 55:24 |
| successful | 220:1 | 184:15 185:16 | 62:25 72:4 |
| 127:25 | supported | 185:18,22,24 | 74:15 76:1 |
| successor 17:24 | 77:22 | 193:1,2,6 259:7 | 82:18 83:14 |
| 18:18 111:6 | supporting | surprise 166:9 | 122:1,19 134:9 |
| 178:2 | 105:17 106:7 | 284:1 | 134:9,10 |
| succinct 76:25 | 186:22 187:8,9 | surprised 146:2 | 139:10 144:15 |
| sufficient 33:15 | 189:21,24 | 155:1 156:11 | 161:1 167:2 |
| 152:23 | suppose 301:11 | 255:11 | 168:6 169:17 |
| suggest 38:25 | sure 18:21 20:4 | surprising | 170:5 183:2 |
| 40:5 | 20:11 24:17 | 116:5 169:15 | 197:19 232:25 |
| suggesting | 31:18 62:13,16 | surrounding | 237:20 248:8 |
| 163:18 | 71:17 76:4 | 149:14 | 265:3 269:21 |
| suggestion 40:3 | 78:19 82:25 | sustain 115:14 | 269:21,22 |
| suite 4:13,19 | 86:6,6 93:17 | 140:8 | 270:22 271:7,9 |
| 5:12 6:9,21 7:9 | 97:4 99:5 | switch 205:1 | 276:5 280:13 |
| 7:15 8:12,18 | 102:17 114:16 | sworn 82:8,14 | 280:15 289:7 |
| 9:5 | 129:25 131:16 | 94:19 96:5,10 | 298:7 303:25 |
| sulfide 258:18 | 148:5 153:25 | 96:15,20,25 | 304:6,14 |
| summary 24:25 | 158:3 162:9 | 97:8,22 128:23 | takeaway |
| sunday 50:5 | 171:16 173:21 | 160:14,14 | 139:8 161:7 |
| superior 78:11 | 183:22 184:4 | 172:5 268:13 | taken 19:13 |
| 81:24 192:16 | 193:8 195:6 | 268:15 306:5 | 44:11 53:22 |
| 222:7 264:24 | 196:11,24 | system 27:15 | 58:19 60:22 |
| supplemental | 203:15 207:7 | 66:12 254:25 | 63:6 69:11 |
| 15:8 93:21 | 208:15 211:5 | t | 210:10 306:3 |
| support 103:5 | 216:7,7 235:12 |  | 306:12 307:9 |
| 103:24 104:5 | 237:2 240:23 |  | takeoff 125:8,9 |
| 104:13 105:1 | 241:6,8 261:5 | 206:7,8 268:20 | 125:14,15 |

[takeoff - testimony]

| 183:15 | tandem 211:8 | targets 138:16 | testified 68:13 |
| :---: | :---: | :---: | :---: |
| takes 179:4 | 212:14 214:25 | 188:6 220:16 | 96:7,12,17,22 |
| 199:10 302:2 | tandemly 237:2 | 221:20 | 97:2,10 113:13 |
| 304:9 | tangible 255:14 | team 282:14 | 126:25 134:21 |
| talk 32:22 | 256:25 257:18 | technical 9:11 | 208:16 210:14 |
| 82:15 113:3 | tangibles 14:24 | 44:14 45:6 | 228:18,21 |
| 117:9 146:5 | 253:21 254:3 | 49:17 78:14 | 265:5,9 268:25 |
| 173:10 184:9 | 256:5,13 | tell 96:6,11,16 | 289:3 |
| 186:24 188:9 | $\boldsymbol{\operatorname { t a p }} 4: 232: 4,25$ | 96:21 97:1,9,14 | testify 121:25 |
| 207:16 228:20 | 33:4,5,9,14 | 105:21 109:14 | 154:15,16 |
| 230:6 247:21 | 35:25 | 155:24 186:1 | 208:19,22 |
| 251:1,14 | tape 238:9 | 230:25 234:10 | 209:7 215:24 |
| 273:24 297:9 | taprk.com 4:7 | 254:6 256:10 | 216:2,6,12,18 |
| 300:10 | target 136:23 | 284:20 288:4 | 216:21,22 |
| talked 109:17 | 137:15 138:7 | 291:16 301:22 | 243:13,17 |
| 120:7 127:20 | 145:15 152:21 | temporarily | 265:14 270:16 |
| 159:3 168:23 | 168:20,24 | 259:2 | testifying |
| 176:11 177:19 | 207:11 220:18 | ten 208:20 | 153:22 155:22 |
| 190:13 223:6 | 220:22,25 | 213:20 265:12 | 189:5 208:2 |
| 264:2 267:4 | 227:20 230:20 | 271:4 302:11 | 209:6 216:7,12 |
| 272:9 292:9 | 231:8,9 232:1 | tender 269:4 | 271:22 306:5 |
| talking 37:23 | 232:14,22 | tenders 172:24 | testimony |
| 54:17 126:13 | 233:24 234:4 | 207:20 | 13:19 14:19 |
| 147:6 148:9 | 234:11,13 | tentatively | 74:12 85:17,18 |
| 167:11 201:16 | 242:7 247:13 | 40:16 | 85:19,20 88:23 |
| 202:18,20 | 288:16,19 | term 37:22 | 89:8 91:8 |
| 209:20 229:21 | targeted 137:17 | 38:15 162:5 | 92:13,18 |
| 235:18 236:23 | 137:25 | terms 173:14 | 106:15 113:19 |
| 246:15 260:19 | targeting 81:8 | 182:18 225:25 | 144:12 153:18 |
| 266:25 267:3 | 81:10 150:10 | 258:14 264:19 | 154:2,9,11,12 |
| 285:4 291:17 | 154:5,6 157:11 | 265:19,20 | 154:18 157:10 |
| 291:25 297:8 | 167:20 169:2 | 266:6,19 | 172:6,22 |
| talks 74:12 | 187:4 188:7 | test 78:2 | 175:22 179:1 |
| 223:25 249:4 | 223:11 229:12 | tested 78:1 | 205:13,18 |
| 262:22 | 234:18 | 139:4 | 206:5,9,13 |

Page 78
[testimony - think]

| $209: 4210: 18$ | $56: 2,2257: 3,9$ | thanks $42: 4$ | $234: 3238: 7$ |
| :---: | :--- | :--- | :--- |
| $210: 18211: 21$ | $58: 2060: 18,19$ | $64: 14160: 5$ | $245: 20254: 24$ |
| $212: 22215: 23$ | $60: 24,2561: 7$ | $171: 24$ | $262: 20263: 2$ |
| $217: 10220: 1$ | $65: 1672: 24$ | theirs $133: 15$ | $275: 22,24$ |
| $221: 25228: 21$ | $73: 5,9,1578: 12$ | $145: 23224: 7$ | $284: 17288: 16$ |
| $229: 11,17$ | $81: 2583: 16$ | thick $137: 3$ | $295: 17298: 13$ |
| $230: 3243: 4$ | $95: 25108: 21$ | $138: 9,12232: 9$ | think $19: 12$ |
| $264: 21265: 5,7$ | $112: 3113: 9$ | $233: 12,12$ | $20: 2522: 23$ |
| $265: 19266: 4$ | $115: 25116: 20$ | thicker $137: 8$ | $23: 524: 23$ |
| $266: 18267: 5$ | $117: 3,5128: 13$ | thickness $142: 4$ | $25: 1728: 17,22$ |
| $267: 10,19,21$ | $131: 13,18$ | $220: 19241: 23$ | $29: 12,1431: 7$ |
| $270: 6273: 15$ | $132: 16,21$ | $242: 8273: 4$ | $33: 1334: 6$ |
| $274: 21283: 10$ | $134: 3,7,12,13$ | $295: 17$ | $37: 5,2538: 11$ |
| $284: 2288: 14$ | $141: 8148: 5$ | thin $231: 15$ | $38: 1440: 23$ |
| $288: 23$ | $151: 5156: 24$ | $276: 1$ | $42: 1147: 3$ |
| testing $81: 16$ | $157: 4164: 14$ | thing $21: 7$ | $48: 1249: 8$ |
| texas $251: 14,17$ | $164: 15167: 25$ | $61: 2167: 24$ | $50: 452: 14$ |
| $251: 23,25$ | $171: 23172: 13$ | $75: 1987: 7$ | $60: 1761: 1,2,20$ |
| $261: 7,8$ | $189: 4,10,13$ | $103: 21105: 16$ | $63: 2370: 6$ |
| text $212: 11,12$ | $200: 16203: 15$ | $106: 14113: 16$ | $71: 1472: 17$ |
| textbook | $203: 20,22,23$ | $114: 6116: 4$ | $76: 2,1177: 13$ |
| $230: 16$ | $204: 12210: 25$ | $135: 16141: 8$ | $78: 4,1082: 13$ |
| thank $17: 14$ | $235: 9243: 4,8$ | $149: 15187: 16$ | $83: 21,2285: 13$ |
| $18: 119: 5,23$ | $245: 19,21,22$ | $189: 16220: 7$ | $85: 2486: 12$ |
| $22: 4,823: 20,21$ | $248: 2,4,12,13$ | $224: 17,21$ | $95: 18107: 23$ |
| $23: 2324: 3,6$ | $249: 23259: 19$ | $228: 3244: 5$ | $110: 13113: 2$ |
| $30: 2531: 25$ | $262: 1,2,3,8$ | $267: 14274: 22$ | $114: 3115: 4,16$ |
| $34: 1936: 3,10$ | $271: 23280: 15$ | $279: 18281: 25$ | $129: 21131: 12$ |
| $36: 13,14,21$ | $284: 4292: 19$ | $299: 7301: 11$ | $137: 2138: 16$ |
| $37: 8,9,1038: 18$ | $294: 16,16$ | things $34: 8$ | $139: 25141: 22$ |
| $39: 21,2440: 1$ | $296: 3297: 24$ | $35: 739: 653: 2$ | $142: 3,5144: 21$ |
| $42: 3,5,1847: 21$ | $299: 2,21300: 1$ | $67: 10100: 22$ | $146: 1,3149: 8$ |
| $47: 2348: 2,14$ | $303: 11305: 1,6$ | $101: 20113: 14$ | $152: 6,7,23$ |
| $48: 1849: 20$ | $305: 8,10,12$ | $175: 11196: 6$ | $154: 11,14,15$ |
| $53: 2455: 22$ |  | $216: 20225: 2$ | $154: 17,21,22$ |
|  |  |  |  |
|  |  |  |  |

Page 79
[think - title]

| 156:18 160:19 | 285:24 296:12 | thursday $2: 3$ | 240:22 258:24 |
| :---: | :---: | :---: | :---: |
| 160:21 161:12 | 302:17 304:5 | 74:8 83:3 | 259:20 260:3 |
| 161:14,15 | 304:15 | 112:24 114:2 | 270:20 282:21 |
| 162:3,5,8 | thinking 29:9 | 264:14 | 283:8 286:12 |
| 163:23 164:1 | 215:9 | ties 251:2 | 289:16,20,25 |
| 165:24 166:16 | thinks 266:17 | till 93:19 | 296:12,13 |
| 166:18 168:5 | thinner 149:14 | 177:16 | 301:13 304:6,9 |
| 169:15 170:17 | third 67:24 | $\operatorname{tim} 130: 2$ | 304:14 305:7 |
| 171:12 179:1 | 68:13 123:13 | 131:23 132:9 | timeframe 43:9 |
| 179:22,24,25 | 139:7 145:7,24 | time 2:4 21:6 | 45:2 |
| 180:6,11 183:7 | 158:25 161:6 | 22:25 24:1 | timeline 87:17 |
| 187:24 188:25 | 248:6,15 | 33:15 38:2,5 | timeliness |
| 192:14,22 | thought 30:10 | 41:2 47:8,10 | 254:20 |
| 193:12 194:6 | 70:19 87:9 | 48:11 51:6 | timely 43:6 |
| 194:17 195:7 | 104:12 113:25 | 65:7,8 74:8 | 50:9 58:16 |
| 195:10,20 | 119:17 158:18 | 76:12 82:14 | 68:22 75:12 |
| 200:2 202:18 | 162:1 179:1,20 | 87:2 88:3 | 86:8 112:24 |
| 204:1 207:22 | 201:15 215:18 | 90:20 101:6,17 | 114:14,15,21 |
| 208:9 209:21 | 246:6 | 119:17 120:17 | 116:8 154:20 |
| 212:22,24 | thoughts 40:16 | 128:14 139:4 | 155:2 179:15 |
| 213:4,7,8 214:7 | 174:15 | 141:5 143:7 | times 20:19 |
| 215:18,25 | thread 38:1 | 149:18,22 | 134:22 140:20 |
| 227:15 230:10 | three 19:8 20:3 | 150:9 153:14 | 279:19 300:22 |
| 231:1 232:3,6 | 21:9 38:9 | 156:23 167:19 | 301:11 |
| 234:2 240:11 | 50:19 53:12 | 169:16,18,19 | timing 37:21 |
| 242:22 244:9 | 54:8,10 55:5,24 | 169:22 170:25 | timothy 123:25 |
| 261:17 262:19 | 56:7 65:25 | 171:8,14 | 124:5,17 |
| 265:25 267:10 | 70:4 71:9 72:4 | 177:12 179:3 | 125:18,25 |
| 267:13,19 | 77:11 87:8 | 187:2 189:19 | 127:4,13 |
| 269:8 270:17 | 94:11,24 | 196:25 200:15 | 129:13 183:9 |
| 270:23 271:20 | 112:22 140:21 | 201:20,22 | 183:23 197:25 |
| 272:7 273:16 | 145:10,13 | 202:9,13 203:5 | title 67:25 68:3 |
| 275:11 278:25 | 194:6 220:15 | 203:9,11,12 | 162:19 175:12 |
| 280:8,18 281:7 | 227:21 252:15 | 207:19 215:19 | 175:15,16 |
| 281:10 283:13 | 264:11 | 224:22 225:17 | 184:4,8 |

Page 80

## [titles - trying]

| titles $162: 10$ | $223: 21240: 16$ | towards $20: 16$ | traverse $128: 1$ |
| :--- | :---: | :--- | :--- |
| titus $251: 10$ | $266: 11298: 6$ | $136: 25$ | $185: 14,15$ |
| today $21: 13$ | $300: 22$ | township $57: 15$ | $186: 3$ |
| $30: 331: 4$ | told $25: 25$ | $57: 2269: 5,8$ | treated $237: 22$ |
| $37: 19,2441: 7$ | $78: 23115: 1$ | track $49: 15$ | $237: 23$ |
| $41: 1561: 2$ | $121: 20,25$ | tracked $12: 4$ | trend $279: 9$ |
| $62: 3,863: 17$ | $178: 8216: 15$ | $58: 4$ | trial $74: 25$ |
| $78: 1581: 23$ | tomorrow | tracks $174: 19$ | $116: 2$ |
| $98: 13,18$ | $271: 11298: 11$ | tract $12: 24$ | tried $160: 1$ |
| $111: 14,18,22$ | took $143: 12$ | $101: 15103: 22$ | $215: 21,22$ |
| $121: 7,22122: 3$ | $201: 16,24$ | $105: 7123: 7,24$ | trix $147: 3$ |
| $122: 11124: 12$ | $202: 6,13203: 3$ | $175: 6,6,6,19$ | trouble $125: 12$ |
| $124: 20135: 19$ | $203: 4,11$ | $182: 19$ | $135: 3$ |
| $137: 21171: 22$ | $243: 16247: 14$ | tracts $105: 25$ | trucha $139: 3$ |
| $172: 25175: 22$ | $261: 25279: 5$ | $107: 24108: 2,5$ | true $128: 3$ |
| $185: 19186: 25$ | $304: 11,12$ | trade $22: 23$ | $136: 4166: 9$ |
| $187: 1196: 4$ | tools $255: 25$ | $33: 2238: 5$ | $176: 2287: 14$ |
| $199: 17202: 21$ | top $13: 21,23$ | trades $19: 12$ | $287: 15306: 9$ |
| $202: 23209: 10$ | $23: 1346: 7$ | $250: 24$ | $307: 5$ |
| $216: 7,13,18$ | $218: 25220: 8$ | trailing $40: 18$ | trust $102: 25$ |
| $221: 24,25$ | $220: 17221: 8$ | transcriber | $292: 4$ |
| $229: 1234: 9$ | $230: 19231: 9$ | $307: 1$ | trusts $186: 4$ |
| $235: 4237: 8$ | $231: 11,17$ | transcript | truth $96: 6,6,7$ |
| $253: 6279: 20$ | $245: 4$ | $301: 14302: 1$ | $96: 11,11,12,16$ |
| $283: 15285: 4$ | total $104: 5$ | $302: 18303: 5,9$ | $96: 16,17,21,21$ |
| $288: 14,23$ | $167: 13187: 14$ | $303: 19307: 3,5$ | $96: 2297: 1,1,2$ |
| $297: 9,10$ | $187: 17188: 2,4$ | transcriptionist | $97: 9,9,10,14$ |
| today's $218: 6$ | $188: 10254: 13$ | $306: 7$ | $181: 7$ |
| together $31: 18$ | $257: 2,7$ | transcripts | try $40: 7163: 25$ |
| $60: 1261: 6$ | totally $241: 1$ | $302: 6$ | $191: 4,7205: 3$ |
| $99: 18142: 15$ | totals $133: 2$ | transparency | $209: 15243: 11$ |
| $183: 13184: 19$ | $183: 11$ | $176: 24$ | $260: 7284: 17$ |
| $185: 10199: 6$ | touch $21: 1$ | transparent | trying $99: 17$ |
| $199: 18212: 6$ | toward $87: 21$ | $245: 7$ | $138: 14143: 17$ |
| $215: 6,14$ | $104: 16190: 13$ |  | $161: 22,25$ |
|  |  |  |  |

[trying - understand]

| 162:23 163:2 | 113:18 124:16 | typically 207:7 | 161:24 177:21 |
| :---: | :---: | :---: | :---: |
| 169:11 177:17 | 129:4,11,22 | 207:10,12 | 179:4 185:3 |
| 181:7 201:10 | 136:7 138:17 | 224:7 226:7 | 186:8 190:2,3,3 |
| 203:2 230:8 | 140:21 147:6 | 302:2 | 190:3 197:6,19 |
| 260:15 | 163:3 167:6 | typo 51:12 | 199:7 201:22 |
| tuesday 44:1 | 168:23 174:1 | 296:23 | 202:15 203:6 |
| 85:16 150:2,8 | 184:17 185:6 | u | 216:15 239:24 |
| 230:8 282:25 | 186:1 187:9 | u 16:2,2 204:22 | 247:5,10 |
| 283:14 | 188:2,4,10,11 | u 16.2,2 204.22 | 248:23 266:1,8 |
| turn 88:4 94:20 | 188:16 189:19 | ultimate 34:6 | underlying |
| 97:18 156:19 | 189:21,24 | 216:21 224:8 | 57:12,20 |
| 188:23 | 198:12 224:9 | $225 \cdot 3235 \cdot 22$ | 273:12 281:11 |
| turned 53:16 | 227:7 229:2 | $236: 7,12245: 2$ | 281:17 282:20 |
| twelve 206:19 | 234:21 237:9 | $245: 8,17$ | 283:1,6 |
| twenty 43:19 | 240:4 253:8,13 | $272: 15,25$ | underneath |
| two 21:8 26:6 | 256:3 257:22 | $273: 16,18$ | 251:6,19 260:8 |
| 30:2,3 31:3 | 263:17,21 | ultimately | understand |
| 32:2 34:23 | 264:10 266:13 | $25: 19 \text { 153:21 }$ | 24:19 27:18 |
| 36:12,19 37:3 | 266:23 269:22 | 1 | 30:13 36:5 |
| 38:8 43:3 | 275:22 285:3 | unable 2 | 45:5 59:24 |
| 44:11,17 47:4,8 | 286:18 289:20 | uncommitted | 64:10,11 73:25 |
| 50:9,10,16,17 | 291:10 292:7,8 | 100:4 105:23 | 74:11 85:8 |
| 50:18,19,21 | 292:9 295:3,9 | 123:25 | 87:5,19 89:22 |
| 51:5 52:21 | 296:5,11 | uncontested | 99:5 104:22 |
| 53:2 54:20 | 298:13 301:8 | 33:16 | 105:3,3 112:9 |
| 55:19 56:17 | 301:13 302:12 | under 44:11 | 119:13,20 |
| 58:8,19 59:5 | 303:20 304:12 | $48: 1,7,17 \text { 49:14 }$ | 129:4 151:24 |
| 60:3,11 61:11 | tx 9:6 | 52:12,21 53:22 | 152:1,5,10 |
| 63:21 64:12 | type 153:1 | 55:24 58:2 | 169:11 175:24 |
| 66:9,15,23,23 | 155:10 165:17 | $60 \cdot 22$ 69:11 | 189:7 196:3 |
| 66:24 67:11 | 237:24 | 72:2,5 74:12 | 201:12,20 |
| 69:5,7 77:9 | typewriting | $78: 4 \text { 86:8,9 }$ | 203:2 206:11 |
| 81:4,7 85:3,18 | 306:7 | 97:15 100:7 | 211:5 214:24 |
| 105:9 111:12 | typical 240:19 | 106:3 111:16 | 217:4,18 |
| 112:25 113:13 |  | 135:8 151:11 | 227:15 240:23 |

Page 82
[understand - upper]

| 260:4 263:13 | uniformly | 188:12 190:15 | untimely |
| :---: | :---: | :---: | :---: |
| 267:16 280:12 | 138:9 | 190:24 191:22 | 144:11 |
| 287:5 300:24 | unit 14:9 57:13 | 191:22 192:8 | unusual 38:10 |
| 302:15 303:7 | 57:16,20,24 | 192:12 194:1,4 | 40:23 |
| 304:14 | 58:7 60:2,11 | 195:8,12,17,21 | update 21:15 |
| understandable | 70:5 79:25 | 200:23,23,24 | 37:12 |
| 21:5 | 80:5,8 98:14,19 | 200:25 201:3,6 | updated 45:19 |
| understanding | 99:13,13,18,18 | 201:8 202:19 | 122:16 123:5 |
| 19:15 46:1,4 | 99:20,25 100:1 | 221:17 222:17 | 175:12 |
| 114:20 118:23 | 100:5,7,11,15 | 222:20 223:5 | updating 46:16 |
| 120:1 164:1 | 100:17,20 | 223:14,17 | uplifts 257:16 |
| 166:20 173:17 | 101:11,14 | 233:18,22 | upper 14:7 |
| 173:18 179:19 | 102:3,21,23,24 | 235:19 244:14 | 137:8,12,15,17 |
| 190:23 199:24 | 102:24,25 | 274:11,14 | 137:25 138:8 |
| 202:18 211:2 | 103:23 105:22 | 276:18 282:5 | 138:12,15 |
| 215:3,4,19 | 107:25 108:4,7 | unitized 78:5 | 141:22 142:5 |
| 247:12 258:20 | 108:12 109:20 | units 69:24 | 145:9,23 |
| 262:14 267:14 | 111:2,8 113:18 | 70:4 77:21 | 148:21 150:10 |
| 301:5 | 113:21 114:24 | 81:6,7 100:3 | 150:12 154:7 |
| understands | 117:12,14 | 138:25 144:1 | 157:13,22 |
| 119:9 | 118:11,24,25 | 158:6 175:18 | 158:22 159:1 |
| understood | 119:7,12,18,23 | 185:14 187:22 | 167:10,20 |
| 24:12 161:17 | 119:25 123:8 | 192:7 193:17 | 168:11,14,18 |
| 201:23 264:1 | 123:15 126:3,7 | 193:19 194:20 | 169:2,5 220:21 |
| unending 40:18 | 131:2 133:4 | 194:20 196:16 | 221:10,19 |
| unfairness | 135:17 136:23 | 201:11 225:12 | 222:16 223:11 |
| 146:4 | 140:21,22 | 226:25 | 228:23 229:13 |
| unidentified | 141:25 142:15 | unmute 164:20 | 230:13,18 |
| 12:22,23,25 | 144:8 149:14 | unnecessarily | 231:14 232:14 |
| 13:4,5,6,7,8,9 | 157:15 162:13 | 116:5 | 232:19 233:3 |
| 13:12,13,14,15 | 163:7 164:3 | unobjectively | 233:24 234:6 |
| 13:16,17 14:21 | 174:12 175:19 | 138:1 | 234:11,13 |
| 15:14 | 176:15,20 | unquote 279:15 | 240:14 241:11 |
| uniform 71:13 | 177:23 182:19 | 286:11 | 241:17,22 |
|  | 185:15 187:15 |  | 247:14,24 |

Page 83

## [upper - walk]

| $\begin{aligned} & 275: 4278: 14 \\ & 279: 20288: 17 \end{aligned}$ | $\begin{aligned} & 64: 5,9,11,13,15 \\ & \text { varden } 138: 5 \end{aligned}$ | $\begin{aligned} & 233: 5239: 18 \\ & 246: 24247: 1 \end{aligned}$ | views 38:13 <br> virtual 24:7,8 |
| :---: | :---: | :---: | :---: |
| ur 224:24 | 227:3,8,11 | 247:19 278:20 | 24:15 98:21 |
| 236:12 | 277:7,23 290:7 | 279:2,3,7 | 124:24 142:10 |
| urges 187:25 | variability | 284:14 285:11 | 208:9 216:24 |
| usa 105:14,15 | 277:19 295:6 | 286:21 288:6 | 217:1 235:22 |
| use 106:15,16 | 295:13,20 | 297:21 | 236:6 242:15 |
| 127:20 135:16 | variable 141:23 | vertical 44:6 | 268:11 |
| 191:21 193:1 | 275:23 | 46:13 148:25 | virtue 197:24 |
| 207:15 211:12 | variation | 149:2,11 | voice 204:24 |
| 213:3 238:6 | 232:11 236:15 | 152:19 153:13 | voir 10:3,5 |
| 248:9 284:15 | 245:13 | 165:1 167:13 | 108:18 112:5 |
| 284:23 298:8 | variations | 167:15 218:14 | 116:12 180:25 |
| 299:9 | 207:8 | 227:20 228:6 | 181:3 209:15 |
| used 133:14 | various 28:8,9 | 237:21 238:13 | 210:3 216:3 |
| 184:8 211:23 | 105:24,25 | 247:23 250:14 | volume 257:13 |
| 221:5 231:8 | vary $226: 6,8$ | vetting 211:17 | volumetric |
| 237:24,25 | 231:12 241:7 | 211:22 | 272:18 273:7 |
| 243:1 258:3,11 | vast 256:18 | vice $249: 10,12$ | 281:20 |
| useful 22:24 | vastly 261:9,11 | 249:14 | volumetrics |
| using 139:15 | verbal 116:25 | vicinity 293:10 | 238:6 |
| 211:8,20 | 133:2 | video 270:1 | voluntary |
| 272:24 273:17 | verbalize | videoconfere... | 197:17 |
| usual 47:17 | 161:14 | 2:2 3:3,7,14,21 | w |
| 67:16 68:12 | verbalized | 4:3,11,17 5:3,8 | w 268:20 |
| 135:11 | 59:23 | 5:9,10,16 6:3,7 | wait $38: 12$ |
| usually 255:6 | verbatim 302:1 | 6:13,19 7:3,7 | 93:19 163:13 |
| 299:2,18 | 302:6,10,18 | 7:13,19 8:4,10 | 197:12 210:23 |
| v | verified 70:22 | 8:16 9:3,12,13 | 217:9 261:13 |
| valid 234:16 | 182:15 | 9:15 | waiting 27:23 |
| value 279:15 | verify 298:7 | view 74:3,4 <br> $239 \cdot 15253 \cdot 12$ | 49:6 102:7 |
| values 297:1 | versus $145: 10$ $159 \cdot 4188: 11$ | viewing 273:9 | 172:4 240:7 |
| vance 5:961:3 | $159: 4188: 11$ $188 \cdot 16207 \cdot 6,9$ | viewing 273:9 | waived 303:23 |
| 61:4,8,18 62:23 | 188:16 207:6,9 | viewpoint | walk 218:3,5 |
| 62:25 63:4,9,14 | 207:16 227:18 | 253:18 |  |

Page 84
[want - wells]

| want 30:5 $38: 5$ | 101:8 102:10 | 250:12 252:19 | 135:19,21 |
| :---: | :---: | :---: | :---: |
| 38:25 39:2 | 138:7 161:12 | 279:19 299:8 | 136:7,11 137:4 |
| 47:13 65:24 | 174:16 176:13 | web 209:23 | 137:20 138:4,5 |
| 67:6 68:9 | 189:8 195:23 | website 71:19 | 138:17,20,21 |
| 70:14 75:7 | 197:12,25 | week 111:17,22 | 138:23 140:22 |
| 76:20,24 78:4 | 203:15 240:13 | 125:1,2,17,21 | 141:1,6 142:22 |
| 79:2 82:2 | 246:6 253:22 | 129:8 149:21 | 143:1,1,2,13 |
| 85:22 87:7 | 282:6 303:4 | 149:22 150:2 | 144:25 145:11 |
| 91:14 101:13 | wanting 162:2 | 151:13 266:11 | 145:13 157:12 |
| 101:25 108:11 | wants 37:20,21 | 302:11 | 157:16,17,23 |
| 108:13 112:6,7 | 78:6 144:5 | weekend 49:9 | 158:17 159:4,4 |
| 117:9,20 | 240:2 302:9 | 50:5 53:4 | 159:8,15 |
| 122:15,19,24 | warren 5:15 | weeks 30:2,3 | 160:20 161:5 |
| 123:20 129:1 | 61:15 62:1,22 | 31:3 40:6 47:9 | 161:16 164:24 |
| 131:15 134:16 | waste 76:12 | 50:9 54:20 | 165:2,8 167:7 |
| 138:19 141:1 | 80:25 215:18 | 55:20 147:6 | 167:11 174:20 |
| 143:15,18 | 233:22 264:25 | 301:8,13 | 184:25 185:1,4 |
| 160:17 162:4 | water 272:19 | 302:12 303:20 | 185:6 187:8,21 |
| 164:8 168:6 | 283:7 | weight 198:23 | 188:2,11,11 |
| 173:12 180:25 | way $24: 266: 24$ | wellbore | 189:19,21 |
| 184:9 188:23 | 74:3,4 79:8 | 222:20 232:1 | 190:4,23 |
| 190:14 191:10 | 154:1 159:24 | 237:22 255:15 | 191:14 192:19 |
| 191:15 197:23 | 166:5,19 | 274:8 276:3,6 | 192:23 193:18 |
| 210:3 213:3 | 196:18 197:2 | 277:9 293:12 | 197:7,22 198:1 |
| 215:8 228:20 | 215:4 220:17 | wellbores | 198:21 199:11 |
| 230:6 232:22 | 229:15 239:16 | 238:14 239:19 | 199:15,20 |
| 237:5 241:6 | 239:17 252:10 | wells 14:9,12 | 206:24 207:2,4 |
| 243:21 244:8 | 267:17 303:22 | 60:13 69:22,24 | 207:17 211:24 |
| 248:5 253:11 | we've 44:8 | 70:1,2 80:11 | 212:20 213:21 |
| 253:18 258:22 | 139:1,6 144:11 | 81:6,7,18,21 | 213:22,23,23 |
| 261:5 263:12 | 171:16 180:1 | 99:24 100:2,10 | 213:24,25 |
| 270:24 282:4 | 226:17 228:25 | 104:7 105:9 | 214:1,4,4,17,21 |
| 284:1 302:3 | 229:1,8 233:1 | 106:2,22 121:7 | 215:8 216:22 |
| wanted 71:17 | 236:9,13,16 | 122:2 127:3,17 | 218:17,18,19 |
| 85:5 87:16 | 245:25 250:5 | 128:3 135:17 | 219:7,11,15,15 |

Page 85
[wells - witness]

| $219: 18220: 1$ | $285: 18,19,20$ | wholly $194: 4$ | withstands |
| :--- | :---: | :--- | :--- |
| $221: 7,17$ | $285: 22,23$ | 195:8 | 156:7 |
| $222: 17223: 1$ | $286: 1,2,10$ | wide $243: 11$ | witness $10: 10$ |
| $223: 20224: 4$ | $287: 12289: 14$ | width $272: 19$ | $11: 274: 175: 2$ |
| 224:19 225:10 | $289: 20291: 10$ | $281: 22283: 8$ | $75: 2,3,4,8,11$ |
| $225: 17226: 19$ | $291: 11293: 9$ | willing $30: 8$ | $75: 12,1482: 6,7$ |
| $226: 20227: 9$ | $293: 10,11,18$ | $270: 25$ | $82: 784: 18,20$ |
| $227: 21228: 3,6$ | $295: 3,9,24,25$ | wilson $14: 8$ | $85: 1887: 16$ |
| $228: 11232: 25$ | $296: 12297: 19$ | $79: 2580: 5,8$ | $94: 1696: 5,10$ |
| $233: 14234: 12$ | $297: 20,21,21$ | $98: 13,1999: 19$ | $96: 15,20,25$ |
| $234: 21235: 1$ | went $30: 14$ | $102: 23107: 24$ | $97: 899: 4$ |
| $236: 19239: 21$ | $54: 21154: 13$ | $108: 4109: 20$ | $103: 9105: 4$ |
| $239: 25240: 4,5$ | $175: 12176: 23$ | $111: 2,7118: 11$ | $108: 19109: 4$ |
| $240: 14,15$ | $247: 22272: 8$ | $118: 25119: 7$ | $110: 4114: 18$ |
| $241: 10,11,20$ | $273: 12274: 19$ | $119: 25123: 7$ | $115: 21116: 13$ |
| $244: 9,11,13,17$ | $283: 5$ | $123: 15126: 3,7$ | $116: 14128: 17$ |
| $244: 18245: 5,9$ | west $57: 14,21$ | $136: 22174: 11$ | $128: 21,25$ |
| $245: 10,16,17$ | $57: 2260: 4,5,5$ | $177: 22182: 19$ | $129: 9,15,19,25$ |
| $250: 9,12,13,14$ | $60: 6,12,13,13$ | $185: 15201: 2,8$ | $130: 6,10,25$ |
| $250: 16,18,22$ | $60: 1480: 14$ | $202: 19221: 17$ | $131: 6,9134: 11$ |
| $251: 4,8,12,17$ | $126: 9,22$ | $222: 17,19$ | $134: 17139: 24$ |
| $251: 18,22,22$ | $137: 20,22$ | $223: 4,13$ | $147: 23150: 22$ |
| $252: 8,9,9,11,12$ | $144: 1145: 3,14$ | $233: 18244: 13$ | $151: 4152: 15$ |
| $252: 14253: 17$ | $158: 14,19$ | $274: 10,14$ | $152: 18153: 18$ |
| $256: 4257: 12$ | $161: 15184: 18$ | $282: 4$ | $153: 22156: 14$ |
| $257: 14258: 22$ | $199: 2219: 11$ | wine $14: 581: 15$ | $156: 19157: 2$ |
| $258: 24259: 2$ | $219: 20226: 2$ | $138: 15154: 7$ | $160: 14,15,16$ |
| $259: 14260: 21$ | $227: 18230: 3$ | $157: 12211: 19$ | $160: 25161: 18$ |
| $261: 6,8,10$ | $231: 21238: 24$ | $215: 11221: 5$ | $162: 15,18$ |
| $266: 14270: 20$ | $239: 6240: 6$ | wish $299: 7$ | $163: 4,10,20$ |
| $275: 15,18$ | $252: 10277: 11$ | wished $194: 23$ | $164: 7,7,10,18$ |
| $277: 9,21279: 5$ | western $277: 6$ | wishes $30: 3$ | $168: 3169: 18$ |
| $280: 1,2285: 11$ | white $68: 18$ | withhold | $170: 10,13$ |
| $285: 11,13,14$ | $212: 12$ | $200: 11204: 7$ | $172: 6,16$ |
| $285: 14,16,17$ |  |  | $178: 15180: 25$ |
|  |  |  |  |

Page 86
[witness - yeah]

| 181:5,23 | 209:4 215:24 | 131:22 133:8 | $\mathbf{x}$ |
| :---: | :---: | :---: | :---: |
| 182:11 188:25 | 267:24 288:15 | 139:7 175:5,6 | x 10:1 11:1 |
| 200:19,24 | wonder 270:12 | 190:5 191:24 | x 12:1 13:1 14:1 |
| 201:2,5,18,24 | wonderful | 192:3,5 196:10 | 15:1 16:1 |
| 202:10,17,24 | 42:24 67:4 | 196:15 197:20 | 278:20 |
| 203:10,22 | 79:19 88:16 | 198:9,11,16,24 | xto 8:15 36:25 |
| 204:15,16,20 | 95:10 97:12 | 199:2,3 201:25 | 37:16 38:4 |
| 205:3,8 209:4 | 298:22 300:7 | 201:25 206:16 | 39:2 40:6 |
| 210:3 211:2,7 | 303:18 | 249:7 | xto's 38:14 40:7 |
| 211:16 212:6 | wondering | worries 66:12 |  |
| 212:11 213:5 | 42:11 270:10 | worry 153:1 | y |
| 213:16 214:14 | woodlands 9:6 | worse 195:4 | y 278:21 |
| 217:6,13,19 | word 266:15 | worth 106:22 | yeah 28:25 |
| 235:9 243:5,10 | 299:8 | would've 86:1 | 33:20 36:1 |
| 243:12,17,22 | words 141:11 | 111:17,22 | 47:2 49:8 50:3 |
| 244:4,7,12,19 | 196:13 280:4 | 151:17,19,19 | 51:19,24 53:2 |
| 244:24 245:1 | work 38:4 64:4 | 167:20 266:8 | 55:6,17 61:6 |
| 245:12,22 | 194:25 210:13 | 283:13,15 | 67:8 70:3,13,24 |
| 246:3,8,10 | 212:13 214:25 | write 299:19 | 71:12,22 84:11 |
| 248:4,6,16,19 | 215:14 216:17 | writing 111:22 | 84:24 89:6 |
| 262:2,8 268:7 | 237:2 254:16 | written 103:1 | 90:1 91:20 |
| 268:14,19 | worked 143:9 | 116:25 174:10 | 92:17 95:15,20 |
| 271:18,21 | 159:11 213:19 | 195:15 200:5,5 | 98:17 104:15 |
| 280:13,18 | 214:3 265:10 | 206:12 283:11 | 108:18 109:25 |
| 281:3 284:2,2 | 265:13 269:2 | 283:14 299:13 | 112:8 116:15 |
| 292:25 293:4,7 | working 20:16 | 299:16 | 128:10 132:20 |
| 293:11,18,24 | 25:13 58:8 | wrong 29:25 | 135:16 136:22 |
| 294:6,8,12,17 | 67:16 77:12,17 | 30:1 209:23 | 139:23 141:14 |
| 298:10,20 | 77:21,23 80:15 | 215:3 218:4 | 141:25 143:9 |
| 306:4 | 80:17 85:25 | wrote 120:20 | 147:4,23 |
| witnesses 82:13 | 99:19 101:15 | 200:1 208:17 | 158:25 159:6 |
| 87:14 94:7,11 | 104:6 105:8,24 | wtp 105:15 | 159:15 161:4 |
| 95:2 97:14 | 123:22,25 |  | 163:16,23 |
| 100:23 169:23 | 124:7 125:7,19 |  | 165:11 167:19 |
| 172:5 180:12 | 126:1,8,22 |  | 168:5,14 169:4 |
|  |  |  | 170:22 171:17 |

Page 87

## [yeah - zooming]

| 172:10 179:15 | 257:8 279:24 |
| :---: | :---: |
| 182:16 186:21 | 286:6 293:21 |
| 189:4,4 193:13 | yesterday |
| 194:11 201:12 | 84:22 |
| 203:1 205:6 | yield 285:1 |
| 225:23 231:1 | yields 279:13 |
| 232:17 239:8 | z |
| 244:25 260:4 | zone 137:4,8 |
| 260:24 268:15 | 141:2 236:22 |
| 269:9 283:22 | 240:11 |
| 285:25 287:7 | zones 78:1,2 |
| 300:20 301:4 | 152:24 236:15 |
| $\begin{aligned} & 301: 20 \\ & \text { year } 36: 787: 9 \end{aligned}$ | zooming 149:7 |
| 101:23 109:13 |  |
| 110:14 139:10 |  |
| 151:17 161:8 |  |
| 237:9 249:15 |  |
| 260:10,22 |  |
| 284:22 |  |
| years 19:8 20:3 |  |
| 21:9 25:14 |  |
| 75:1 77:17 |  |
| 100:11,12 |  |
| 113:18 115:8 |  |
| 139:6 142:11 |  |
| 206:19,21,22 |  |
| 208:21 213:20 |  |
| 237:9,10 249:8 |  |
| 249:17 265:12 |  |
| 266:12,12 |  |
| 273:24 |  |
| yellow 71:23 |  |
| 84:23 218:21 |  |
| 253:22 254:11 |  |

## Page 88

