

| 1 | APPLICATION OF MEWBOURNE OIL | CASE NO. |
| :---: | :---: | :---: |
| 2 | COMPANY TO REVOKE OR MODIFY THE | 23042 |
| 3 | INJECTION AUTHORITY GRANTED |  |
| 4 | UNDER ORDER NO. R-10139 FOR THE |  |
| 5 | STATE MA COM NO. 1 OPERATED BY |  |
| 6 | ENDEAVOR ENERGY RESOURCES, LP, |  |
| 7 | EDDY COUNTY, NEW MEXICO. |  |
| 8 |  |  |
| 9 | APPLICATION OF XTO ENERGY INC. | CASE NO. |
| 10 | FOR APPROVAL OF A NON-STANDARD | 23425 |
| 11 | WELL LOCATION, LEA COUNTY, |  |
| 12 | NEW MEXICO. |  |
| 13 |  |  |
| 14 | APPLICATION OF BTA OIL | CASE NO. |
| 15 | PRODUCERS, LLC TO RESCIND | 23426 |
| 16 | APPROVAL OF FOUR APPLICATIONS |  |
| 17 | FOR PERMITS TO DRILL ISSUED TO |  |
| 18 | TEXAS STANDARD OPERATING NM LLC, |  |
| 19 | LEA COUNTY, NEW MEXICO. |  |
| 20 |  |  |
| 21 | APPLICATION OF CIMAREX ENERGY | CASE NO. |
| 22 | CO. FOR A HORIZONTAL SPACING | 23448-23455 |
| 23 | AND PRORATION UNIT AND |  |
| 24 | COMPULSORY POOLING, LEA COUNTY, |  |
| 25 | NEW MEXICO. |  |
|  |  | Page 2 |


| 1 | APPLICATION OF MEWBOURNE OIL | CASE NO. |
| :---: | :---: | :---: |
| 2 | COMPANY FOR COMPULSORY POOLING, | 22161-22164 |
| 3 | LEA COUNTY, NEW MEXICO. |  |
| 4 |  |  |
| 5 | APPLICATION OF MEWBOURNE OIL | CASE NO. |
| 6 | COMPANY FOR COMPULSORY POOLING, | 22423-22426 |
| 7 | EDDY COUNTY AND LEA COUNTY, |  |
| 8 | NEW MEXICO. |  |
| 9 |  |  |
| 10 | APPLICATION OF V-F PETROLEUM, | CASE NO. |
| 11 | INC. FOR COMPULSORY POOLING AND | 23254-23255 |
| 12 | APPROVAL OF A NON-STANDARD |  |
| 13 | SPACING UNIT, EDDY COUNTY, |  |
| 14 | NEW MEXICO. |  |
| 15 |  |  |
| 16 | APPLICATION OF COG OPERATING LLC | CASE NO. |
| 17 | FOR COMPULSORY POOLING, EDDY | 23303-23304 |
| 18 | COUNTY, NEW MEXICO. |  |
| 19 |  |  |
| 20 | APPLICATION OF MARATHON OIL | CASE NO. |
| 21 | PERMIAN LLC FOR COMPULSORY | 23348 |
| 22 | POOLING, EDDY COUNTY, |  |
| 23 | NEW MEXICO. |  |
| 24 |  |  |
| 25 |  |  |
|  |  | Page 3 |


| 1 | APPLICATION OF CIMAREX ENERGY | CASE NO. |
| :---: | :---: | :---: |
| 2 | CO. TO AMEND ORDER NO. R-22198 | 23379 |
| 3 | FOR A ONE-YEAR EXTENSION OF THE |  |
| 4 | WELL COMMENCEMENT DEADLINE, |  |
| 5 | EDDY COUNTY, NEW MEXICO. |  |
| 6 |  |  |
| 7 | APPLICATION OF MRC PERMIAN | CASE NO. |
| 8 | COMPANY FOR APPROVAL OF AN | 23367 |
| 9 | OVERLAPPING HORIZONTAL WELL |  |
| 10 | SPACING UNIT AND COMPULSORY |  |
| 11 | POOLING, EDDY COUNTY, |  |
| 12 | NEW MEXICO. |  |
| 13 |  |  |
| 14 | APPLICATION OF MEWBOURNE OIL | CASE NO. |
| 15 | COMPANY FOR COMPULSORY POOLING, | 23397-23398 |
| 16 | EDDY COUNTY, NEW MEXICO. |  |
| 17 |  |  |
| 18 | APPLICATION OF LEGACY RESERVES | CASE NO. |
| 19 | OPERATING LP FOR A HORIZONTAL | 23403-23404 |
| 20 | SPACING UNIT AND COMPULSORY |  |
| 21 | POOLING, EDDY COUNTY, |  |
| 22 | NEW MEXICO. |  |
| 23 |  |  |
| 24 |  |  |
| 25 |  |  |
|  |  | Page 4 |


| 1 | APPLICATION OF STEWARD ENERGY | CASE NO. |
| :---: | :---: | :---: |
| 2 | II, LLC FOR COMPULSORY POOLING, | 23413 |
| 3 | LEA COUNTY, NEW MEXICO. |  |
| 4 |  |  |
| 5 | APPLICATION OF COLGATE | CASE NO. |
| 6 | OPERATING, LLC TO POOL | 23421-23423 |
| 7 | ADDITIONAL INTERESTS UNDER |  |
| 8 | ORDER NO. R-22179, EDDY COUNTY, |  |
| 9 | NEW MEXICO. |  |
| 10 |  |  |
| 11 | APPLICATION OF SILVERBACK | CASE NO. |
| 12 | OPERATING II, LLC FOR | 23424 |
| 13 | COMPULSORY POOLING, EDDY COUNTY, |  |
| 14 | NEW MEXICO. |  |
| 15 |  |  |
| 16 | APPLICATION OF MRC PERMIAN | CASE NO. |
| 17 | COMPANY FOR APPROVAL OF AN | 23417-23418 |
| 18 | OVERLAPPING HORIZONTAL WELL |  |
| 19 | SPACING UNIT AND COMPULSORY |  |
| 20 | POOLING, LEA COUNTY, NEW MEXICO. |  |
| 21 |  |  |
| 22 |  |  |
| 23 |  |  |
| 24 |  |  |
| 25 |  |  |
|  |  | Page 5 |


| 1 | APPLICATION OF OXY USA INC. FOR | CASE NO. |
| :---: | :---: | :---: |
| 2 | APPROVAL OF A 1,279.16-ACRE | 23428-23429 |
| 3 | NON-STANDARD HORIZONTAL WELL |  |
| 4 | SPACING UNIT AND COMPULSORY |  |
| 5 | POOLING, LEA COUNTY, NEW MEXICO. |  |
| 6 |  |  |
| 7 | APPLICATION OF MEWBOURNE OIL | CASE NO. |
| 8 | COMPANY TO AMEND ORDER NO. | 23405 |
| 9 | R-22069, LEA COUNTY, NEW MEXICO. |  |
| 10 |  |  |
| 11 | APPLICATION OF MEWBOURNE OIL | CASE NO. |
| 12 | COMPANY FOR COMPULSORY POOLING, | 23406-23407, |
| 13 | EDDY COUNTY, NEW MEXICO. | 23419-23420 |
| 14 |  |  |
| 15 | APPLICATION OF MEWBOURNE OIL | CASE NO. |
| 16 | COMPANY FOR COMPULSORY POOLING | 23409 |
| 17 | AND APPROVAL OF A NON-StANDARD |  |
| 18 | SPACING AND PRORATION UNIT, |  |
| 19 | LEA COUNTY, NEW MEXICO. |  |
| 20 |  |  |
| 21 | APPLICATION OF MEWBOURNE OIL | CASE NO. |
| 22 | COMPANY FOR COMPULSORY POOLING | 23445-23446 |
| 23 | AND APPROVAL OF UNORTHODOX WELL |  |
| 24 | LOCATIONS, EDDY COUNTY, |  |
| 25 | NEW MEXICO. |  |
|  |  | Page 6 |


| 1 | APPLICATION OF MEWBOURNE OIL | CASE NO. |
| :---: | :---: | :---: |
| 2 | COMPANY FOR COMPULSORY POOLING | 23447 |
| 3 | AND APPROVAL OF A NON-STANDARD |  |
| 4 | SPACING AND PRORATION UNIT, |  |
| 5 | EDDY COUNTY, NEW MEXICO. |  |
| 6 |  |  |
| 7 | APPLICATION OF WHIPTAIL | CASE NO. |
| 8 | MIDSTREAM LLC FOR A HEARING ON | 22782 |
| 9 | AND APPROVAL OF ITS REMEDIATION |  |
| 10 | AND CLOSURE PLAN, APPLICATION ID |  |
| 11 | NO. 61609, INCIDENT ID NO. |  |
| 12 | NAPP2125652492, RIO ARRIBA |  |
| 13 | COUNTY, NEW MEXICO. |  |
| 14 |  |  |
| 15 | APPLICATION OF HILCORP ENERGY | CASE NO. |
| 16 | COMPANY TO AMEND ORDER NO. | 23438 |
| 17 | R-10385, SAN JUAN COUNTY, |  |
| 18 | NEW MEXICO. |  |
| 19 |  |  |
| 20 | APPLICATION OF ARMSTRONG ENERGY | CASE NO. |
| 21 | CORPORATION FOR SPECIAL POOL | 23393 |
| 22 | RULES AND REGULATIONS FOR THE |  |
| 23 | REEVES; DEVONIAN POOL, LEA |  |
| 24 | COUNTY, NEW MEXICO. |  |
| 25 |  |  |
|  |  | Page 7 |















P R O C E E D I N G S
THE HEARING EXAMINER: It is Thursday, April 6, 2023. These are the hearings of the New Mexico Oil Conservation Division of the Energy, Minerals and Natural Resources Department. I am your hearing examiner, Bill Brancard. With me are technical examiners John Garcia and John Harris -- Harrison. Sorry.

As always, we have a court reporter. So please speak clearly and slowly. We have a pretty decent agenda today.

I will note that we're having a little bit of problems accessing our permitting system. So if you filed something overnight, well, I guess too bad. Well, at least we won't see it. So you'll have to let us know about it.

The worksheet for today is up on the website. I believe there are 58 cases listed. We'll start off with a bunch of status conferences and then we'll have a number of cases that had pre-hearing orders, but appear to be now affidavit cases, and then we'll end with a few interesting cases.

So with that, I'm ready to go. Any announcements, Mr. Garcia?

THE TECHNICAL EXAMINER GARCIA: I don't
have any.
THE HEARING EXAMINER: Thank you. All right. With that, $I$ will call items one through six on the worksheet. These are cases 21683, 21685, 22103, 22104, 22083, 22084. Let's start with entries from Matador Production Company.

MR. RANKIN: Good morning,
Mr. Examiner. May it please the Division -- and this is Adam Rankin appearing on behalf of the applicant in the Matador cases with the Santa Fe office of Holland \& Hart.

THE HEARING EXAMINER: Thank you. Good morning. EGL Resources or Earthstone or whatever.

MR. PADILLA: Mr. Examiner, Earnest L. Padilla for Earthstone Operating.

THE HEARING EXAMINER: Thank you. And we may have some other entries here. How about XTO Energy?

MR. RANKIN: That may -- Mr. Examiner, I am sorry. I -- that may have been us, but I'll have to double check real quick. If you go to the next group, I'll confirm with you.

THE HEARING EXAMINER: All right. EOG Resources.
MR. PARROT: Good morning. This is

James Parrot with Beatty \& Wozniak representing EOG.
THE HEARING EXAMINER: Thank you. And then I have Cimarex Energy.

MR. SAVAGE: Good morning,
Mr. Examiner. Darin Savage with the Santa Fe office of Abadie \& Schill on behalf of Cimarex Energy Company, and that's in cases 22083 and 22084.

THE HEARING EXAMINER: Thank you. So we had -- I believe we had a motion for a continuance in this matter to a set another status conference, but I just wanted to have everybody gather here because these cases are more than two years old. So just like to check up on where we are. So we'll start with Matador.

MR. RANKIN: Good morning,
Mr. Examiner. We did not enter appearance on behalf of XTO. That was Hinkle. Hinkle, I believe, also subsequently withdrew.

In this case, Earthstone and Matador have been in ongoing discussions to resolve their disputes or their competing proposals and have been in trade discussions. My understanding from my side is that the parties are under a letter agreement now for a trade and they plan to close on that trade after resolving some additional diligence issues.

And then once the trade closes, then they will -- some of these cases will go away. And I believe Matador's cases will remain, assuming they resolve their differences as they expect and the Matador cases will go forward.

THE HEARING EXAMINER: Thank you. And what was your request for?

MR. RANKIN: Mr. Examiner, I believe we moved to continue the cases for one month, I believe.

THE HEARING EXAMINER: Have a May 4th or May 18th. What were you looking for?

MR. RANKIN: I believe -- maybe before I speak out of turn, I'll make sure that that is what we asked for.

MS. SALVIDREZ: It's May 4th.
MR. RANKIN: Thank you, Marlene.
THE HEARING EXAMINER: All right. So a status conference on May 4th?

MR. RANKIN: Yes, Mr. Examiner.
THE HEARING EXAMINER: All right. Any objections? Hearing none, then these six cases will have a status conference on May 4th and we'll issue a piece of paper.

MR. PADILLA: Mr. Examiner, I may add I agree with Mr. Rankin. But yesterday, I was
instructed to dismiss the Money Penny applications because they're confident that the deal is going to close. So the continuance would probably just be fine and in the meantime, when that trade closes, we can dismiss.

THE HEARING EXAMINER: Thank you,
Mr. Padilla. Sounds like some progress. All right. With that, these cases are set for a status conference on May 4th. Okay. We're on item number seven, case 23042. Mewbourne Oil Company.

MR. RANKIN: Mr. Examiner. Good
morning. May it please the Division, Adam Rankin appearing on behalf of the applicant in this case with the Santa Fe office of Holland \& Hart.

THE HEARING EXAMINER: Endeavor Energy
Resources?
MS. SHAHEEN: Good morning,
Hearing -- Mr. Hearing Examiner. Sharon Shaheen on behalf of Endeavor Energy Resources.

THE HEARING EXAMINER: Thank you. And I believe we have a late file motion to dismiss; is that correct, Mr. Rankin?

MR. RANKIN: Yes, Mr. Examiner. We did file a motion to dismiss now that we have received confirmation that the Division has acted to cancel the
authority to object on the well issue.
THE HEARING EXAMINER: Thank you. Any objections then? Hearing none, case 23042 will be dismissed and we will issue an order. Thank you.

MR. RANKIN: Thank you.
MS. SHAHEEN: Thank you.
THE HEARING EXAMINER: Item number eight, case 23425. XTO Energy.

MR. RANKIN: Mr. Examiner, good
morning. Adam Rankin with the Santa Fe office of Holland \& Hart on behalf of the applicant in this case, XTO Energy, Incorporated.

THE HEARING EXAMINER: Thank you.
Apache Corporation?
MS. BENNETT: Good morning, Mr. Examiner. Deana Bennett on behalf -- from -- I'm sorry. Deana Bennett from Modrall Sperling on behalf of Apache Corporation.

THE HEARING EXAMINER: Okay. Good morning.

MS. BENNETT: Too many things to say this morning.

THE HEARING EXAMINER: Anyone else interested in case 23425? Hearing none, I believe we have an objection. Do we need to set this for a
contested hearing?
MR. RANKIN: Mr. Examiner, I do not
believe so. The parties have been in discussions and while they have not resolved to XTO's satisfaction the non-standard location issue, as a result of the impasse, XTO has decided to withdraw its requests for authorization for a non-standard location and is going to complete its well at legal locations.

Just to -- just so you understand, what happened here was XTO had projected to drill its well at a 330-foot setback location, so at a legal location.

And during the course of drilling, the well strayed across approximately 1,800 feet or so to a location that was beyond the 50-foot tolerance and was closer than authorized to the offsetting tract, which is Apache's tract.

And so XTO had filed an administrator application seeking approval to complete its well at those locations and then Apache objected. So we filed this application for hearing in order to try to encourage or get us to -- towards a resolution and if necessary go to hearing.

In the interim, we've been unable to reach an agreement and as a result, XTO is just going
to dismiss its application for a non-standard location and will complete its wellbore only at legal locations.

THE HEARING EXAMINER: Thank you. And Apache?

MS. BENNETT: Thank you, Mr. Examiner. So Apache opposes the dismissal of the NSL application at this time for a couple of reasons.

First, XTO just informed Apache last night -- or us last night that it -- or yesterday evening that it intended to take this route and based on what we've seen so far, it's not clear how XTO can actually fix the issue.

And so the Division really needs to be able to spend some time looking at the materials to see if XTO can actually complete this well given that it's 1,800 feet of offending lateral and make sure that it can actually do that. Right now, we just have XTO's word for it.

The other thing is, as Mr. Rankin stated that the well was drilled at -- well, was, I think, intended to be drilled at legal locations, but what Apache has seen is that it's actually 280 feet off the lease line. So while that's within the tolerance, it is just within the tolerance.

So even the parts that are legal of the well, they're like right on the lease line. I mean -- sorry. 280 feet off the lease line.

So for all intents and purposes, this is actually a proximity tract well that Apache should have been either joined in or at least has the opportunity to share in the data from. So there's a lot more that needs to be discussed here both from the Division's perspective, in my view and Apache's view, and also from Apache's perspective.

Apache does have wells in the adjoining acreage that it has drilled but not yet completed. So it is going to be a real impact on Apache.

And Apache's asked for just some general data, some information and opportunities from XTO to -- for XTO to provide pre- and post-frack job reports from the third-party service provider so that Apache can confirm that it did not stray into the -- into a non-standard location.

And also to be notified when completion operations will be conducted so Apache can have someone on site, again, just to protect Apache's interests.

So Apache would suggest that this NSL application not be dismissed, that the parties have
some more time to work out their respective positions and that the case be set for a status conference on the March -- I mean -- sorry -- the May, whatever, middle -- May 18th, I think it is, docket date.

And at that point, if the parties have reached resolution, that would be great and if not, then we could maybe talk about next steps, including a contested hearing.

MR. RANKIN: May I respond --
THE HEARING EXAMINER: I'll allow you a few more words, Mr. Rankin, and then we'll move on.

MR. RANKIN: Thank you very much.
Mr. Examiner, this application is for a very specific relief. It's requesting authorization to complete at non-standard locations. XTO is no longer seeking that relief.

We ask that the case be dismissed for that reason and if Apache has any concerns about the work that's done or is done, then $I$ think they can bring their own application at a later date. In the interim, the parties are continuing to discuss and Apache has made a request, some of which I think are reasonable.

And so I think at this point, there's nothing further to be done on this case and we ask
that it be dismissed.
THE HEARING EXAMINER: All right.
Here's what we're going to do: We're going to set this case for a status conference on May 18th. However, if XTO would like to file a written motion to dismiss, they can go right ahead. Obviously, Apache can object, but normally we grant motions to dismiss.

And I would actually agree with you, Mr. Rankin, that Endeavor could file its own -- Apache could file its own case. So revoke an APD or something. I'm -- why am I giving free legal advice?

MS. BENNETT: Yeah. Thank you.
MR. RANKIN: Thank you, Mr. Examiner.
THE HEARING EXAMINER: So 23425 will be continued to a status conference on May 18 th.

MS. BENNETT: Thanks.
THE HEARING EXAMINER: With that, we are on item number nine, 23426. BTA Oil Producers.

MS. MCLEAN: Good morning,
Mr. Examiner. Jackie McLean with Hinkle Shanor on behalf of BTA Oil Producers.

THE HEARING EXAMINER: All right. And we have Texas Standard Operating.

MR. BRUCE: Mr. Examiner, Jim Bruce representing Texas Standard.

THE HEARING EXAMINER: Thank you. And any other interested parties in case 23426? Hearing none, $I$-- it sounded like parties wanted to have like a real live hearing on this; is that correct, BTA?

MS. MCLEAN: That is correct,
Mr. Examiner.
MR. BRUCE: Yes, sir.
THE HEARING EXAMINER: When would you like a real live hearing on this?

MS. MCLEAN: And I think that the parties are requesting the contested hearing for May 18th if that's at all possible.

THE HEARING EXAMINER: I think so.
Texas Standard, opinions?
MR. BRUCE: Yeah. That sounds like the earliest practicable date, so sure.

THE HEARING EXAMINER: All right. So let's set this then for a hearing on May 18th.

MR. BRUCE: Thank you.
MS. MCLEAN: Thank you.
THE HEARING EXAMINER: All right. We have items 10 through 17 next and these are cases $23448,23449,23450,23451,23452,23453,23454$ and 23455. Cimarex Energy.

MR. SAVAGE: Good morning,

Mr. Examiner. Darin Savage with the Santa Fe office of Abadie \& Schill on behalf of Cimarex Energy Company.

THE HEARING EXAMINER: Okay.
Mr. Savage, I think these are two groups of cases, but I put them all together. Is that --

MR. SAVAGE: They are, and that's
appropriate. They're related in regards to the objection.

THE HEARING EXAMINER: Thank you. And so we have Permian Resources Operating.

MR. RANKIN: Good morning,
Mr. Examiner. Adam Rankin with the Santa Fe office of Holland \& Hart appearing on behalf of Permian Resources Operating.

THE HEARING EXAMINER: Thank you. Are there any other interested persons for cases 23448 through 23455? Hearing none, let's start with Cimarex. I believe we have an objection to your application.

MR. SAVAGE: I believe that's correct. We filed the applications and -- as for a hearing date and it looks like Permian is objecting as -- and as I understand it, they may be filing competing applications. So that's all the information $I$ have at
this point.
THE HEARING EXAMINER: Permian, competing applications?

MR. RANKIN: Mr. Examiner, yes. We do and as soon as we have a contested hearing day, we'll get those filed and the notices sent out. Permian is intending to develop this acreage with its own development plans and so we would like to have our competing well plans heard by the Division.

THE HEARING EXAMINER: All right. So with notice and all that, we may be looking at June 1.

MR. RANKIN: Mr. Examiner, we have unfortunately -- and I conveyed this to Mr. Savage. We have a witness availability issue in June and so we would request a contested hearing be set in July at the second docket of July.

THE HEARING EXAMINER: Okay. We -- I can do that, but when you file a new case, it'll automatically be put on the first docket of a month and so you'll need to continue --

MR. RANKIN: Okay. So, Mr. Examiner, so we'll -- we -- I guess just so I'm clear, we would file it and just plan to put it on the June -- I mean, request it for the June docket, but then we'll continue it back to whatever the contested hearing

| 1 | date is set for. |
| :---: | :---: |
| 2 | THE HEARING EXAMINER: File it, notify |
| 3 | us that you want to add it to the pre-hearing order |
| 4 | and then it will be added to the date, which I think |
| 5 | we're looking at July 20th here; right? |
| 6 | MR. RANKIN: Yeah. |
| 7 | THE HEARING EXAMINER: Okay. And then |
| 8 | you can continue it after we issue that order, adding |
| 9 | it to the pre-hearing order. |
| 10 | MR. RANKIN: Okay. |
| 11 | THE HEARING EXAMINER: Is that |
| 12 | complicated or what? |
| 13 | MR. RANKIN: It's a little bit, but we |
| 14 | can do it. |
| 15 | THE HEARING EXAMINER: All right. |
| 16 | Hearing no other interested parties in these cases, |
| 17 | cases $23448,449,450,451,452,453,454,455$ will be |
| 18 | set for a hearing on July 20. |
| 19 | MR. SAVAGE: Thank you. |
| 20 | THE HEARING EXAMINER: Thank you. |
| 21 | MR. RANKIN: Thank you. |
| 22 | THE HEARING EXAMINER: All right. |
| 23 | We're getting into cases that were under pre-hearing |
| 24 | orders and then pre-hearing orders got vacated, but |
| 25 | I'm not sure we're actually going to have hearings. |
|  | Page 35 |

So let's find out. I'm looking at items 18 through 21. These are cases 22161, 22162, 22163, 22164.

Mewbourne Oil Company.
MR. BRUCE: Mr. Examiner, Jim Bruce here for Mewbourne.

THE HEARING EXAMINER: All right. I have an entry for Earthstone Operating.

MR. RANKIN: Mr. Examiner, Adam Rankin with the Santa Fe office of Holland \& Hart appearing on behalf of Earthstone.

THE HEARING EXAMINER: COG Operating?
MS. RYAN: Good morning. Beth Ryan
appearing on behalf of COG Operating.
THE HEARING EXAMINER: And then I have -- is it both OXY and Apache together?

MR. RANKIN: Mr. Examiner, Adam Rankin appearing on behalf of OXY in this case --

THE HEARING EXAMINER: Okay. Apache?
MS. BENNETT: And good morning, Mr. Examiner and everyone. This is Deana Bennett on behalf of Apache.

THE HEARING EXAMINER: Thank you. Any other interested persons, cases 22161, 162, 163, 164? All right. So we had a pre-hearing order, we vacated the pre-hearing order, but now we may have another
objection; is that correct? Is that from COG?
MS. RYAN: Yes, Mr. Examiner. We filed, yesterday, an objection to this case proceeding by affidavit. The parties -- there's still some delay in trying to get with -- Mewbourne to get back to us timely. So we're needing to kick this down the road another two weeks.

THE HEARING EXAMINER: Okay. We're going to kick this down the road to what? A status conference?

MS. RYAN: I think we're -- we are agreeable to Mewbourne proceeding by affidavit in two weeks -- proceeding to hearing.

THE HEARING EXAMINER: Okay. So we're looking at basically just a continuance for two weeks?

MS. RYAN: Yes, sir.
THE HEARING EXAMINER: All right.
Mewbourne?
MR. BRUCE: That's perfectly acceptable.

THE HEARING EXAMINER: Any concerns from the other parties in these cases? Hearing none, we will continue this to -- where are we -- April 20th.

> MS. RYAN: Thank you.

THE HEARING EXAMINER: And I think somebody has to file a continuance.

MS. RYAN: Yes. We'll get that filed.
THE HEARING EXAMINER: Thank you. All right. We are now on items 22 through 25, cases 22423, 22424, 22425, 22426. Mewbourne Oil Company.

MR. BRUCE: Mr. Examiner, Jim Bruce appearing for Mewbourne.

THE HEARING EXAMINER: I have an entry from MRC Permian Company.

MR. RANKIN: Morning, Mr. Examiner. Adam Rankin with the Santa Fe office of Holland \& Hart appearing on behalf of MRC.

THE HEARING EXAMINER: Any other interested persons, cases 22423, 424, 425, 426?

Hearing none, $I$ believe this was also a case that had a pre-hearing order -- well, it still has a pre-hearing order, but the objections have been removed. Where are we? Mr. Bruce, there was never a motion to vacate the pre-hearing order, so I'm a little confused.

MR. BRUCE: Yeah, that was my neglect, but I'm ready to present the cases. These were tied up. If you'll recall, there was a whole slew of Mewbourne and Matador cases tied up and these are the
surviving Mewbourne cases out of that. And so the parties have reached agreement and I would like to proceed with the cases.

THE HEARING EXAMINER: Okay. So MRC, you withdrawn your other cases. Do you have objections to this case going forward by affidavit?

MR. RANKIN: Mr. Examiner, we do not.
THE HEARING EXAMINER: All right. Anyone else with objection? All right. Hearing none, Mr. Bruce, you may proceed with your presentation.

MR. BRUCE: Thank you, Mr. Examiner. I've had a rough week and $I$ woke up this morning and opened this file and I noticed the first thing is I forgot to include the applications and notices in each of these exhibit packages. I will remedy that and then --

THE HEARING EXAMINER: Mr. Bruce, the bigger problem which infects all of your cases today is $I$ don't see any checklists.

MR. BRUCE: Yes. I owe you green cards and pool and checklists. And I prepared them and then I have had trouble filing stuff. And so they're ready to go and when $I$ get to work after this hearing today, I will get those to you. I apologize.

THE HEARING EXAMINER: All right.

MR. BRUCE: That was the next --
THE HEARING EXAMINER: You are okay to go ahead today; is that correct?

MR. BRUCE: Yes. But on each of my -THE HEARING EXAMINER: Don't want to -- here too badly. So --

MR. BRUCE: Yeah.
THE HEARING EXAMINER: But anyway, here's what we're going to do: Because the checklist is so key to all these things, we're going to -- I'm going to allow you to go ahead with your cases today, but they'll all be continued to the 16 th -- what is it -- the 20th; okay?

MR. BRUCE: Okay. Twentieth. Yeah. That's --

THE HEARING EXAMINER: Just because it's -- in some cases, it's difficult to figure out without a checklist what the tracts are, whether there are proximity wells, et cetera and so it's difficult for us to review that.

MR. BRUCE: Okay.
THE HEARING EXAMINER: And so the checklist may trigger questions. So that's what we're going to -- that's what my proposal is for you today,
is that you can go ahead, but all these cases will be continued to be finished up on the $20 t h$.

MR. BRUCE: Yeah. Yeah. This week was a filing nightmare for me. So anyway, I'll cut this very short because all of the applications and the exhibits are -- I mean, they're specific to a well unit, but they're all the same.

In these cases, Mewbourne seeks to force pool collectively the east half of Section 11 and all of Section 12 of 18 South/31 East in Eddy County and the west half of Section 7 in 18 South/32 East in Lea County.

The units will all be dedicated to Mewbourne's proposed Iron Islands wells which are laydown wells comprising -- the well units comprise 320 acres, more or less.

In each of these cases, I've submitted affidavit by Braxton Blandford, the landman for Mewbourne. It contains all usual exhibits, the land plats, the C102s and all of the tract information that the Division likes to see and it also lists the parties being pooled.

And there's quite a bit of title information in here and notice was definitely a mess in this matter. But Mewbourne does request the
pooling of all uncommitted parties, number one. Number two, they request 8,000 a month for a drilling well and 800 a month for a producing well.

The affidavit of the geologist
is -- and Attachment $C$ to the landman's affidavit contains a summary of communications and that summary of communications identifies the identity of the parties being pooled. There are a lot more parties who are not being pooled who are just consenting working interest owners.

And there's a sample copy of the proposal letter, the AFEs for the wells that are stated to be fair and reasonable.

Exhibit 3 is the affidavit of Charles Crosby. This one is identical for all of the cases. It contains a structure map, the cross-section showing where the wells will be completed. The wells are all laydown wells, as I indicated.

And in this area, if you look at the structure map in particular, Attachment A to Exhibit 3, you'll see that all of the Bone Spring wells in this area are laydown wells except one, which has a funny angle just to the north in Section 2. So that is the preferred orientation out here. Also contains the horizontal drilling plans, the simplified form.

Exhibit 4 is my affidavit of notice.
As I said, I supplemented these yesterday. I haven't gotten them filed.

And Exhibit 5 contains the affidavits of publication because of the two counties involved, I published in both the Carlsbad paper and the Hobbs paper for these cases. And of course, it wouldn't be a hearing for me if I didn't have a notice issue.

The final -- and every exhibit package is more or less the same and so I'm not going to run through each exhibit package.

And the one notice -- additional notice item, Mr. Examiner, has been -- this file has been sitting on my desk for so long I can't even remember what's in it. But if you look at the Exhibit 5, the notice affidavit -- publication affidavit, I should say.

When going through this late one night, I could only find the Eddy County publication and so on this particular case, I would like to file a motion for a continuance to -- well, they've already been continued, but $I$ need to publish notice in the Hobbs newspaper.

My financial records show I published, but as you know, I'm dealing with another case where I
didn't have a publication notice. So I'm going to have to -- even though the -- please set it for May -- excuse me -- April 20th along with the others, but ultimately, it'll need to be continued for two weeks so that $I$ can properly publish in Lea County.

But with that, I will -- by later today or tomorrow, $I$ will have all the other data necessary that you want for the April 20 th hearing. And I'd move the admission of Exhibits 1 through 5 at this time.
(Mewbourne Oil Company Exhibit 1 through Exhibit 5 were marked for identification.)

THE HEARING EXAMINER: Thank you.
Mr. Garcia, any questions?
THE TECHNICAL EXAMINER GARCIA: I have a few questions. I guess the first is more of a statement. You said notice is kind of a mess, which concerns me that -- is notice proper then?

MR. BRUCE: Yeah. I notified
everybody. I've got -- especially on this group of cases I sent out. I don't know -- a quick look will tell me. I sent out about -- probably about 50 notices -- or, no. Four times twenty. About 80 notices -- 85 notices and $I$ have a mess of green cards
here and a couple of returned letters. Notice was definitely given in December of -- is it December?

THE TECHNICAL EXAMINER GARCIA: Okay. MR. BRUCE: December of 2021. Yes. THE TECHNICAL EXAMINER GARCIA: Okay. And so I guess more technical questions. Out of these four cases, you have two cases that are the south half of the sections.

MR. BRUCE: Yes.
THE TECHNICAL EXAMINER GARCIA: And I was curious why those laterals are overall longer than the north half of the laterals. The north half cases are shorter by, I believe, like half a mile.

MR. BRUCE: Yeah. I think it was just simply the land ownership.

THE TECHNICAL EXAMINER GARCIA: Okay. If we can discuss that in one of these supplemental exhibits.

MR. BRUCE: Okay.
THE TECHNICAL EXAMINER GARCIA: And also talk about that there is no stranded acreage in the north half that does not match the south half development plan.

MR. BRUCE: Sure.
THE TECHNICAL EXAMINER GARCIA: And
then we already hit on the checklist missing from lots of cases. Another thing, and this is pretty much case-wide today, if we can add this, Mr. Brancard, to what we're requesting for is -- I think all the 102 s are missing, spacing unit drawing and also acreage.

The numerical value of the acreage, they're all blank on pretty much all of the cases today for Mr. Bruce. Most of the 102 s just have two dots on them that says, "Surface location, bottom location," and that's about it.

MR. BRUCE: Okay. That will be
remedied for the next hearing.
THE TECHNICAL EXAMINER GARCIA: I
believe that's all my questions, Mr. Brancard.
THE HEARING EXAMINER: Thank you.
Mr. Harrison, any questions?
THE TECHNICAL EXAMINER HARRISON: No questions. Mr. Garcia covered them for me.

THE HEARING EXAMINER: Thank you.
Okay. So -- all right, Mr. Bruce. In looking through your packets, $I$ only see the Hobbs paper missing in one case.

MR. BRUCE: That's right. Just the final case, 426.

THE HEARING EXAMINER: Okay. Okay. So
the other three, you have the affidavit. So it's just the Hobbs --

MR. BRUCE: Yeah. Both -- correct. THE HEARING EXAMINER: All right. Okay. So we need a checklist, we need a spreadsheet and any backup documentation for the mailing publication.

MR. BRUCE: Yep. And then the C102s --
THE HEARING EXAMINER: Provide C102s.
I think that's it -- oh. And so the issue then is that north -- what -- let me see. It's the northeast quarter of Section 7.

MR. BRUCE: Correct. Whether it's stranded or not.

THE HEARING EXAMINER: It -- I mean, it looks, from your geologist map, as if there is like a directional well or something in there in that quarter. One of your -- in Attachment A to your geologist exhibit. So sure there's an explanation.

MR. BRUCE: Yeah. That's what it looks like. More or less a northwest/southeast 1 mile -- or, heck, that'd be a half mile lateral.

THE HEARING EXAMINER: Yeah. It's just a half mile well, so -- in there. All right. Are there any other interested persons then for cases

22423, 424, 425, 426? And I forgot to ask whether MRC had any questions.

MR. RANKIN: No questions,
Mr. Examiner. Thank you.
THE HEARING EXAMINER: All right.
Hearing no objections, these cases will be continued to the April 20th docket.

And I think we've gone through what is needed then for these cases; a checklist, mailing spreadsheet and backup documentation, revised C102, geologist affidavit revised or whatever to explain that northeast quarter, and then for case 22426, we need the affidavit from the Hobbs newspaper.

MR. BRUCE: Correct. Thank you.
THE HEARING EXAMINER: Thank you. With that, we are on items 26 and 27, cases 23254, 23255. V-F Petroleum, Inc.

MS. MCLEAN: Mr. Examiner, can you hear me?

THE HEARING EXAMINER: Barely.
MS. MCLEAN: I can -- I can't hear you for some reason.

THE HEARING EXAMINER: Oh, my goodness.
MS. MCLEAN: Let me -- hold on one minute 'cause I'm the next up and I just totally lost
audio.
THE HEARING EXAMINER: All right. Well, we can hear you better now. Can you hear me?

MS. MCLEAN: Can't hear --
UNIDENTIFIED SPEAKER 1: I can hear you, Mr. Brancard.

MS. MCLEAN: I can hear you guys. Can you hear me?

THE HEARING EXAMINER: We can hear you.
MS. MCLEAN: Okay. Perfect. Now I can hear you. Yay. I don't -- this happened to me yesterday, too. I do not know what's going on. Thank you.

THE HEARING EXAMINER: Well, as I said, my headset broke. The camera on the computer is not working. I have to use the laptop camera and my key fob doesn't even work for the outside door of the building now. So --

MS. MCLEAN: It's always something.
THE HEARING EXAMINER: Yeah. Must be a sign. All right. Where are we? Apache Corporation.

MS. BENNETT: Good morning, Mr. Examiner and everyone. Deana Bennett on behalf of Apache Corporation.

THE HEARING EXAMINER: Any other
interested persons for cases 23254, 23255? Hearing none, I believe this was also a vacated pre-hearing order. So I guess I will just make sure then. Does Apache have any objection to this case going forward by affidavit?

MS. BENNETT: Thank you, Mr. Examiner.
Apache does not object to the case going forward by affidavit today, but Apache is reserving its rights to seek de novo review if necessary.

THE HEARING EXAMINER: Thank you. With that, V-F Petroleum may proceed.

MS. MCLEAN: Thank you, Mr. Examiner. And I'm not sure if, in the audio issues, I actually entered an appearance, but Jackie McLean with Hinkle Shanor on behalf of $V-F$ Petroleum in case numbers 23254 and 23255.

And in these two cases, $V-F$ seeks to pool uncommitted interests in the northeast corner and southeast corner of Section 35 and the north half and south off of Sections 36, Township 19 South, Range 27 East in Eddy County.

And in case 23254, V-F has applied for an order pooling all uncommitted interests within the Winchester Bone Spring West Pool in a 480 acre non-standard horizontal spacing unit comprised of the
northeast quarter of Section 35 and the north half of Section 36, Township 19 South, Range 27 East.

And the unit will be dedicated to the Angell Ranch, 35/36 Fed Com number 223H, 224H, 233H and 234 H wells.

And then in case number 23255, V-F has applied for an order pooling all uncommitted interests within the Winchester Bone Spring West Pool in a 480 non-standard horizontal spacing unit comprised of the southeast quarter of Section 35 and the south half of Section 36, Township 19 South, Range 27 East in Eddy County.

And the unit will be dedicated to the Angell Ranch 35/36 Fed Com number 221H, 222H, 231H and 232 H wells.

And in these applications, $V-F$ is requesting approval of a non-standard horizontal spacing unit pursuant to NMAC 19.15.16.15B5 and they are requesting approval of the non-standard unit so that it can consolidate surface facilities to rip surface, environmental and economic waste.

And the exhibit packet submitted to the Division for case numbers 23254 and 23255 are essentially the same and contain Exhibit $A$, the land professional's testimony and related land exhibits,
which include the application and proposed notice of hearing, Cl02s for the wells, a plat of tracts, ownership interests, list of interest to be pooled. Since they're asking for a non-standard spacing unit, a non-standard spacing unit plat of tracts and tract ownership as well as a well proposal letter, AFEs and a chronology of contact with the interest owners.

Exhibit $B$ is geology testimony and geology exhibits, which include location maps, SEPC structure maps and structural cross-section maps.

And then finally, Exhibit B [sic], which is a self-affirmed statement of my partner, Dana Hardy, sending out when our firm sent the notice letter to the interested parties, a chart that provides the date each notice letter was sent and the date each return was received as well as a certified mail cards and support.

And finally, an affidavit of
publication from the legal clerk of the Carlsbad Current-Argus showing that notice was published on December 20, 2023.

And with that, I ask that Exhibits A, B and $C$ be admitted into the record in case numbers 23254 and 23255 and that these cases be taken under

| 1 | advisement. |
| :---: | :---: |
| 2 | (V-F Petroleum, Inc. Exhibit A, Exhibit |
| 3 | $B$, and Exhibit $C$ were marked for |
| 4 | identification.) |
| 5 | THE HEARING EXAMINER: Thank you. |
| 6 | We'll start with Mr. Garcia. Any questions? |
| 7 | THE TECHNICAL EXAMINER GARCIA: No |
| 8 | questions. |
| 9 | THE HEARING EXAMINER: Mr. Harrison? |
| 10 | THE TECHNICAL EXAMINER |
| 11 | HARRISON: -- questions. |
| 12 | THE HEARING EXAMINER: All right. I'll |
| 13 | just point out a little glitch in your unit |
| 14 | recapitulation percentages. |
| 15 | MS. MCLEAN: On Exhibit A3 for which |
| 16 | case? Or is it for both of them? |
| 17 | THE HEARING EXAMINER: Actually, it's |
| 18 | just the second case, 55. |
| 19 | MS. MCLEAN: Okay. |
| 20 | THE HEARING EXAMINER: EOG's percentage |
| 21 | somehow grows between Tract 1 and the final from 17 to |
| 22 | 25 percent. |
| 23 | MS. MCLEAN: Oh, yeah. I wonder -- is |
| 24 | that something you'd like us to look at and correct or |
| 25 | is it going to fly today? |
|  | Page 53 |

THE HEARING EXAMINER: I don't think it
matters.
MS. MCLEAN: Okay.
THE HEARING EXAMINER: Just so we have it on the record that that's a glitch, but okay. Well, first, let me just check with Apache. Any questions? Ms. Bennett, you're muted.

MS. BENNETT: Sorry about that. No questions. I was all ready to go and then God dang mute button. So no questions.

THE HEARING EXAMINER: Thank you. All right. So this is the first of a number of cases that are asking us in a hearing to approve a non-standard spacing unit; okay? And they all fall into the category of larger-than-normal spacing unit, which triggers the notice to the surrounding tracts; okay?

In the horizontal well rule, it says you must notice affected persons in the surrounding tracts. We have a definition of "affected persons," rule two. It's the usual. Notify the operator. If there's no operator, notify the working interest owners. No working interest owners, notify the middle interest owners.

But then it says, "And if the land is owned by the federal or state government, you must
notify the BLM or state land office respectively." So I believe that in this case, $V-F$ has notified the BLM; is that correct, Ms. McLean?

MS. MCLEAN: I believe so. I'm just
going to double check to make -- and so I'm not saying the wrong thing. Yes, I believe we did, Mr. Examiner.

THE HEARING EXAMINER: So the only
question is whether any of those surrounding tracts were state land tracts and the state land office should have been notified.

MS. MCLEAN: Let me -- is -- we have the exhibit --

THE HEARING EXAMINER: Your exhibit on -- doesn't really indicate the -- any lease numbers.

MS. MCLEAN: Right.
THE HEARING EXAMINER: Like some people put lease numbers in. It's not required, but yours don't.

MS. MCLEAN: So would you like me to find that out and supplement that information?

THE HEARING EXAMINER: Well, if -- yes.
And I -- and there's a good likelihood, considering Section $36 s$ are usually state land sections, that you will have state land leases here. So you will need to
notify state land office.
Now -- okay. So it's your choice, the applicant's choice, whether you want to have a non-standard spacing unit approved by hearing or have it approved at the time of the APD. So you can supplement any notice to us and ask for the approval in the hearing or you can just say, "That's okay. We'll get this approved at the APD stage."

MS. MCLEAN: I believe that we're asking for it at the hearing because they did not want to wait to the APD stage. I believe it has to do with some of the BLM issues. That seems to be the case in a lot of these.

THE HEARING EXAMINER: Okay.
MS. MCLEAN: So what -- can we submit all the -- like we typically do -- admit everything and take it under advisement and then we will either supplement and say there's no additional notice required, we've checked everything. We could do an additional affidavit to that effect or continue it if necessary if we do find out that notice is necessary.

THE HEARING EXAMINER: That sounds fine.

MS. MCLEAN: Thank you, Mr. Examiner.
THE HEARING EXAMINER: All right. Any
other questions or concerns then for cases 23254, 23255? Hearing none, the exhibits will be admitted into the record.

The case will be taken under advisement subject to the process that counsel has just set forth about determining whether the state land office should have gotten notice for the non-standard spacing unit application.
(V-F Petroleum, Inc. Exhibit A, Exhibit B, and Exhibit $C$ were received into evidence.)

MS. MCLEAN: Thank you, Mr. Examiner.
THE HEARING EXAMINER: Thank you. With that, we are on items 28 and 29, cases 23303, 23304. COG Operating.

MS. MCLEAN: Mr. Examiner, it's me again, Jackie McLean with Hinkle Shanor on behalf of COG Operating.

THE HEARING EXAMINER: Thank you. I have an entry for Chevron USA.

MS. BENNETT: Good morning, everyone. Deana Bennett, Modrall Sperling, on behalf of Chevron USA, Inc.

THE HEARING EXAMINER: Thank you. Any other interested persons for cases 23303, 23304? Does

Chevron object to this case going forward by affidavit?

MS. BENNETT: Thank you, Mr. Examiner. Chevron does not object to the case moving forward by affidavit, but Chevron does have some concerns and so is entering its -- well, I've already entered our appearance, but we are on -- saying on the record that we're preserving our right to seek de novo review. Hopefully we don't have to get there.

THE HEARING EXAMINER: Thank you. The Commission hopes that, too. With that, COG may proceed.

MS. MCLEAN: Thank you, Mr. Examiner. In case numbers 23303 and 23304 , COG seeks to pool all uncommitted interests within the Bone Spring and Wolfcamp formations in Sections 28 and 33 of Township 25 South, Range 27 East and Section 4 of Township 26 South, Range 27 East in Eddy County, New Mexico.

And in case number 23303, COG has applied for an order pooling all uncommitted interests within the Purple Sage Wolfcamp pool, underlying a 1,920 acre, more or less, standard horizontal spacing unit comprised of Sections 28 and 33 of Township 25 South, Range 27 East and Section 4 of Township 26 South, Range 27 East.

And the unit will be dedicated to the Flaming Snail Fed Com 701H, 702H, 703H, 801H, 802H, $704 \mathrm{H}, 705 \mathrm{H}, ~ 803 \mathrm{H}, 706 \mathrm{H}, 707 \mathrm{H}, 708 \mathrm{H}, 804 \mathrm{H}, 805 \mathrm{H}, 709 \mathrm{H}$, 710H and 806H. And this is a Purple Sage Wolfcamp pool, so the spacing in this pool is based on 320-acre tracts.

And in order to create the 1,920-acre standard horizontal spacing unit, the completed interval of the Flaming Snail Fed Com 706H well will be located within 330 feet of the line separating the east half and west half of Sections 28 and 33, Township 25 South, Range 27 East and Section 4, Township 26 South, Range 27 East.

And in case number 23304, COG has applied for an order pooling all uncommitted interests within the Hay Hollow Bone Spring North Pool underlying a 1,920-acre non-standard horizontal spacing unit comprised of Sections 28 and 33 of Township 25 South, Range 27 East and Section 4 of Township 26 South, Range 27 East.

And this unit will be dedicated to the Flaming Snail 501 H and 520 H wells, the $502 \mathrm{H}, 503 \mathrm{H}$ and 521 H wells and the 504 H well. And with these applications, COG is seeking to develop the entirety of Sections 28, 33 and 4 .

And COG's proposal to drill 3-mile laterals will minimize the need for surface facilities in this area because the 22 wells that will be completed, 16 of those Wolf Camp and six Bone Spring will be able to be drilled and operated from one pad in the west half and one pad in the east half of Section 28.

So with that, COG is also requesting the approval of a non-standard spacing unit to accomplish this for case number 23304, which is the Bone Spring wells, and COG is requesting approval of a non-standard spacing unit so that it can have flexibility with the placement of surface facilities. And Exhibit A5 shows the location in our exhibit packet for 23304 of the to-be-constructed surface facilities.

And I know you're going to ask about the notice now to the feds and the state and after I just briefly summarize the exhibits that we submitted for these cases, COG -- our land person is on the call. So she will be available to answer questions about that if you have any as to the necessity of that in case number 23304 .

So the Exhibit packet submitted to the Division for case numbers 23303 and 23304 contain

Exhibit A, which is the land professional's testimony and related land exhibits, which include the application and proposed notice of hearing, C102s for the wells, a plat of tracts, ownership interest and a list of the interests to be pooled as well as well proposal letters, AFEs and a chronology of contact with the interest owners.

And the land exhibits for case number 23304 also includes a surface facilities map and a map of the non-standard spacing unit and interest owners surrounding the unit.

Exhibit B is the geology testimony of Andrew Fletcher. And Mr. Fletcher has not yet testified before the Division, so we have included his resume as Exhibit B1.

And as you can see from Mr. Fletcher's resume, he has a Master of Science in geology and has been a petroleum geoscientist with ConocoPhillips since 2017. And at this time, I'd like to tender Mr. Fletcher as an expert in geology.

THE HEARING EXAMINER: Hearing no objection, so approved.

MS. MCLEAN: Thank you, Mr. Examiner. And Mr. Fletcher's geology exhibits which have been submitted include location maps, SEPC structure maps,
cross-section maps and a stratigraphic cross-section.
And then finally, Exhibit C, which is the notice testimony which sets out when we sent the notice letter to interested parties, a chart that provides a date each notice letter was sent and returns were received as well as the certified mail cards in support.

And finally, an affidavit publication from the Carlsbad paper showing that notice was published on January 10, 2023. And with that, did you have any questions?
(COG Operating LLC Exhibit A, Exhibit
B, and Exhibit $C$ were marked for
identification.)
THE HEARING EXAMINER: Thank you.
Let's start with Chevron. Any questions?
MS. BENNETT: No questions. Thank you.
THE HEARING EXAMINER: Thank you.
Mr. Garcia, questions?
THE TECHNICAL EXAMINER GARCIA: No questions.

THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: No questions. Thank you.

THE HEARING EXAMINER: Gosh, leaving it
all to me. All right. So let's look at case -- non-standard spacing unit case, 23304.

MS. MCLEAN: Yes, Mr. Examiner.
THE HEARING EXAMINER: So what it appears is that you have four standard -- somebody is -- needs to be muted. Ms. Fisher? Sorry. What you have is four standard spacing units that you'd like to combine into one non-standard; is that correct?

MS. MCLEAN: Yes, Mr. Examiner.
THE HEARING EXAMINER: Because it doesn't look like you even have proximity wells for your standard spacing units to enlarge them.

MS. MCLEAN: Correct. And I
believe -- it's my understanding -- and Ms. Klingler from COG is on if she needs to clarify, but it's my understanding that the request for these 3 -mile wells and this non-standard spacing unit is in large part due to the fact that they would have to seek separate co-mingling approval from the BLM which may or may not be granted.

But if we come with this proposal, then -- and what -- we would have just two central tank batteries, all of these things to minimize the surface facilities. Then that approval would be
granted or we would not have to seek that approval from BLM.

THE HEARING EXAMINER: Okay. Well, your application does provide justifications for this and the normal justifications. It's just letting you know that this is kind of a little step beyond what we've approved in the past. We have approved two non-standard spacing units -- I mean, two standard spacing units combined to create a non-standard spacing unit.

This is a little bigger, but you're also doing it in coordination with the Wolf Camp development, which is standard.

MS. MCLEAN: Yes. Yes, Mr. Examiner.
THE HEARING EXAMINER: So that kind of makes sense, too. Okay. So we may have some questions afterwards about that, but we'll let you know. So the other issue then is the notice for the non-standard unit.

There's no indication from your notice document that any notice was given to the BLM or the state land office and there clearly are BLM and state land leases here. So you either need to find out whether you actually did that and didn't tell us or we need to just continue it so that you can get that
notice to those two parties done.
MS. KLINGLER: Mr. Examiner, I did those myself to the BLM and to the state land office.

THE HEARING EXAMINER: Sorry. Can you
just identify yourself for the record, please?
MS. KLINGLER: I'm sorry. This is Shelley Klingler, landman at Conocophillips.

THE HEARING EXAMINER: Okay. Could you raise your right hand quick?

WHEREUPON,

## SHELLEY KLINGLER,

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: Thank you.
Okay. So you did provide notice to them?
THE WITNESS: Yes, sir. I did those letters personally.

THE HEARING EXAMINER: Okay. Well, that's great. If you can just then supplement your exhibits with those letters, that would be fulfilling the requirement.

THE WITNESS: Yes, sir.
MS. MCLEAN: Mr. Examiner, we'll work with Ms. Klingler to get those to you very shortly.

THE HEARING EXAMINER: All right.
Thank you. Any other questions or comments on cases 23303, 23304? Hearing none, the exhibits will be admitted into the record. These cases will be taken under advisement, the record left open for the notice documentation for the non-standard spacing unit.
(COG Operating LLC Exhibit A, Exhibit B, and Exhibit $C$ were received into evidence.)

MS. MCLEAN: Thank you, Mr. Examiner.
THE HEARING EXAMINER: Thank you. All right. With that, we are on item 30, case 23348. Marathon Oil Permian LLC.

MS. BENNETT: Good morning, everyone. Deana Bennett from Modrall Sperling on behalf of Marathon Oil Permian LLC.

THE HEARING EXAMINER: We have a few entries here. MRC Permian Company.

MS. VANCE: Good morning, Mr. Hearing Examiner, Mr. Garcia and Mr. Harrison. Paula Vance with Holland \& Hart on behalf of MRC Permian Company.

THE HEARING EXAMINER: Thank you. Does MRC object to this case going forward by affidavit?

MS. VANCE: We do not. Just preserving rights.

THE HEARING EXAMINER: Thank you.
Ridge Runner Resources.
MS. MCLEAN: Jackie McLean with Hinkle Shanor on behalf of Ridge Runner Resources Operating, Mr. Examiner.

THE HEARING EXAMINER: Thank you. Does
Ridge Runner object to this case going forward by affidavit?

MS. MCLEAN: Ridge Runner does not, Mr. Examiner.

THE HEARING EXAMINER: Thank you. Are there any other entries of appearance then for case 23348? Hearing none, Marathon may proceed.

MS. BENNETT: Thank you very much. This case is very similar to the COG Flaming Snail Wolf Camp case that we just heard. In this case, Marathon seeks a standard 1,920-acre Wolf Camp horizontal spacing unit.

And it's standard because this is in the Purple Sage Wolf Camp pool and Marathon is proposing a proximity tract well, which I'll describe a little bit later. But it is a standard 1,920-acre Wolf Camp horizontal spacing unit and it covers all of Sections 32, 33, 34 of Township 22 South, Range 28 East.

And in this case, Marathon is proposing
3-mile wells and the reason it's proposing the 3-well -- 3-mile wells is to minimize surface disturbance and to maximize Marathon's acreage in this area.

So turning to the exhibits, I filed
exhibits on Tuesday -- timely filed exhibits on Tuesday in case 23348.

And the exhibits $I$ filed include Tab A,
the compulsory pooling checklist, Tab B, the declaration of Farley Duvall, which contains the usual land exhibits, and Tab $C$, which is the declaration of Greg Buratowski, Marathon's geologist, and Tab C contains all of the usual geology exhibits.

Turning to tab -- back to Tab $B$ for the moment, Farley Duvall is Marathon's land professional in this case and he has not previously testified before the Division. I've included with his declaration a resume at Exhibit B8.

He's worked as a landman with Marathon since 2017 and before working for Marathon, he worked at JC Land Management from 2014 to 2017 and prior to that, he also worked as a landman for another entity. He's AAPL certified and HAPL certified. So at this time, I'd like to tender Mr. Duvall as an expert
petroleum landman.
THE HEARING EXAMINER: Hearing no objection, so accepted.

MS. BENNETT: Thank you very much,
Mr. -- so behind Mr. Duvall's declaration is Exhibit B1, the application that we filed in this case and with the notice paragraph. B2 are the C102s for the eight wells that Marathon is proposing to dedicate to this spacing unit and again, these are all Wolf Camp Purple Sage -- Wolf Camp wells in the Purple Sage.

Exhibit $B 3$ is the lease tract map and summary of interests and included in Exhibit B3 are the parties that Marathon is seeking to pool.

And I've created separate exhibit lists or separate lists that identify the parties that Marathon is seeking to pool and so those lists are conspicuously titled, "Working Interest Owners to be Pooled and Overriding Royalty Interests to be Pooled."

So hopefully that clarifies any confusion between the list of the committed and uncommitted mineral interest owners and then the parties to be pooled.

Exhibit B5 in the -- excuse me.
Exhibit B4 is a summary of contacts. Exhibit B5 in the packet $I$ submitted on Tuesday is the sample well
proposal letter that was sent to the party -- or to the affected parties. That was sent on January 9th. I inadvertently left out two other mailings, though, that Marathon did.

Marathon sent a proposal letter on
December 15th and Marathon sent a clarifying proposal letter -- a clarifying letter on January 23rd. So yesterday, I supplemented the record with the December 15th letter and the January 23 rd letter.

So in terms of proposal letters,
Marathon sent out three separate mailings to some or all of the working interest owners. And when $I$ say, "Some or all," the January 9th mailing went to certain of the working interest owners that were recently discovered. So I would ask that those exhibits also be considered part of the exhibit packet.

Exhibit 6 are the AFEs. Exhibit 7 is my notice affidavit showing that notice letters were timely mailed and that it includes the affidavit of publication showing that notice was timely published. And then like I said, Exhibit B8 is Mr. Duvall's resume.

Turning to Tab $C$, that is the declaration of Greg Buratowski, geologist for Marathon. He has not also -- he's never testified
before the Division before and he -- so I've included in his materials his resume. He has a -- he obtained a master's of science in geology in 2014 and he's worked with Marathon as a geologist since 2014.

So at this time, I'd like to tender Mr. Buratowski as an expert petroleum geologist. THE HEARING EXAMINER: Thank you. Hearing no objection, so admitted.

MS. BENNETT: Thank you.
Mr. Buratowski's -- behind Mr. Buratowski's declaration again are the usual suite of geology exhibits, the locator map, wellbore schematic, structure map, cross-reference well locator map, a stratiographic cross-section.

And then we've included three gross interval isochores to show the different target formations that -- within the Wolf Camp that Marathon is targeting here.

And then Exhibit C 9 is the regional stress orientation justification and that's the exhibit from the Snee-Zoback paper. And Mr. Buratowski testifies in his declaration that due to the stress here in this part of Eddy County, there's no preferred -- orientation wells can either be standup or laydown in this area.

And Marathon is proposing east-west laterals here to maximize Marathon's acreage. And then as Exhibit C10 is Mr. Buratowski's resume.

So with that explanation of the exhibits, I would request that Exhibits $A, B$ and $C$ and the supplemental exhibits that I filed yesterday be admitted into case number 23348. And I am happy to answer or try to answer any questions the Division may have. Thank you.
(Marathon Oil Permian LLC Exhibit A,
Exhibit B, and Exhibit $C$ were marked for identification.)

THE HEARING EXAMINER: Thank you. Any questions from MRC Permian?

MS. VANCE: No. Thank you, Mr. Examiner.

THE HEARING EXAMINER: Questions from Ridge Runner Resources?

MS. MCLEAN: No questions, Mr. Examiner.

THE HEARING EXAMINER: Thank you. Mr. Garcia?

THE TECHNICAL EXAMINER GARCIA: I have a question for you, Mr. Brancard.

THE HEARING EXAMINER: That's not
allowed.
THE TECHNICAL EXAMINER GARCIA: Got to change it up sometimes. Sorry. I'm trying to remember do we require a tract list of interest owners per tract? I know we normally see it. I just don't know if it's a requirement. It's missing here.

I personally prefer the overall unit recap, which is included, but I guess I'm just curious if it's a requirement of our exhibits.

THE HEARING EXAMINER: I don't believe it is. Sometimes it's sort of interesting to see. But yes, I mean, the recap will make it clear to us who are all the interest owners in the unit and from that, the parties should indicate which one of these -- those interest owners are being pooled, which are committed and which are not, in other words.

THE TECHNICAL EXAMINER GARCIA: Yeah --
THE HEARING EXAMINER: So that's here and that looks fine.

THE TECHNICAL EXAMINER GARCIA: Yeah. I'm okay with what's here. I just wanted to make sure, I guess.

THE HEARING EXAMINER: And looks like we have a whole bunch of little fractional interests here. So could get really down in the weeds.

THE TECHNICAL EXAMINER GARCIA: Well, then my questions are easy for this case. I have none.

THE HEARING EXAMINER: All right. Mr. Harrison, any questions?

MS. BENNETT: Thank you. Thank you, Mr. Garcia.

THE TECHNICAL EXAMINER HARRISON: Do have one question. And it may not be terribly relevant, but on your sample letter to the owners, everything else in your presentation looks like the 200 percent risk is listed, but in that sample letter to them, it says, "300 percent."

MS. BENNETT: Yes. Thank you for that question. So the 300 percent is the combination of the -- the ability to recover actual costs, which is the first 100 percent, and then the 200 percent risk penalty on top of that. So that's why that is 300 percent, but it is consistent with the 200 percent elsewhere.

THE TECHNICAL EXAMINER HARRISON: Yeah. That's -- just making sure that that's the reasoning behind it.

MS. BENNETT: Yes.
THE TECHNICAL EXAMINER HARRISON: So no
further questions.
MS. BENNETT: Thank you very much,
Mr. Harrison. Nice to meet you and see you.
THE HEARING EXAMINER: Thank you. All
right. I mean, that's fitting more with the JOA content. Right. Which does the 100/300. All right. The only question $I$ had -- and I know -- I'm surprised Mr. Garcia didn't raise this -- is I think you're asking for 10,000 a month cost?

MS. BENNETT: Yes.
THE HEARING EXAMINER: Can you explain to us the logic behind that?

MS. BENNETT: Yes. I spoke with Marathon about this on Tuesday actually. And first, it's the longer lateral lengths, 3-mile laterals. So that's one reason why they're requesting ten and -- $10,000,1,000$.

But also the general trend, in Marathon's perspective or in Marathon's experience now, is that the rates are increasing and Marathon has seen $10,000,1,000$ for 2 -mile laterals and in fact has even been proposed $12,500,1,250$ for 2 -mile laterals.

So overall, the costs are increasing and Marathon has seen proposals in the same range or even higher. And so it's Marathon's opinion -- the
landman's opinion that these rates are reasonable given the rates that they're seeing from other operators and the length of the laterals.

THE HEARING EXAMINER: That's sort of, "If the other operators can get away with it, we want to get away with it," argument there.

MS. BENNETT: I suppose that's one way to put it, but also, I do think that the trends are increasing and so it's not so much getting away with it, unless -- I mean, you all may decide that those rates are too high of course, but I think that's the trend that we'll be seeing more and more frequently now.

THE HEARING EXAMINER: Well, these are 3-mile laterals. That is true. So -- all right. I have no further questions. So I believe with that, are there any other interested persons in case 23348? Hearing none, the exhibits will be admitted to the record. The case will be taken under advisement.

I don't think we asked you for anything else; is that correct?
(Marathon Oil Permian LLC Exhibit A, Exhibit B, and Exhibit C were received into evidence.)

MS. BENNETT: No.

THE HEARING EXAMINER: Amazing.
MS. BENNETT: Yeah. I'm doing my happy dance. Thank you. Thank you very much. I hope you all have a great rest of the day.

THE HEARING EXAMINER: Thank you. With
that, we are on item 31, but let me first check in with Dana, our court reporter. Are you doing okay?

THE REPORTER: I'm doing fine.
THE HEARING EXAMINER: Excellent. So we're on item 31, case 23379. Cimarex Energy.

MR. SAVAGE: Good morning.
Darin -- Mr. Hearing Examiner, good morning, technical examiners. Darin Savage with the Santa Fe office of Abadie \& Schill appearing on behalf of Cimarex Energy Company.

THE HEARING EXAMINER: Are there any other interested persons for case 23379? Hearing none, Cimarex may proceed.

MR. SAVAGE: Okay. Thank you.
In case number 23379, Cimarex seeks to reopen case number 22751 and amend order number R-22198 in order to request a one-year extension of the well commencement deadline for the pooled unit in the Wolf Camp Formation underlying the west half of Sections 11 and 14, Township 25 South, Range 28 East,

Eddy County, New Mexico as it pertains to the Riverbend 11-14 Federal Com wells, and that's the 7H, 15H, 16 H and 17 H .

The pooling order, a copy of which is provided in the reference section of the hearing packet, allows for a time extension upon the showing of good cause.

In Exhibit $A$ of the hearing packet, landman Mr. John Coffman, who is familiar with the subject plans and unit and his credentials have been previously accepted as an expert witness in professional land matters, testifies that Cimarex is in good standing under the statewide rules and the existing pooling order and there exists good cause to grant the time extension requested.

As stated by Mr. Coffman, Cimarex, in good faith, has made progress towards the development of the unit since issuance of the order by seeking federal drilling permits.

Cimarex promptly applied to the BLM for permits, but has experienced unanticipated delays in the receipt of such permits, which has required Cimarex to postpone and reschedule its drilling plans.

Cimarex respectfully requests the opportunity to move forward without interruption under
a one-year time extension, extending the drilling commencement date to July 25, 2024.

Exhibit $B$ in the hearing packet shows that notice for this hearing was timely. The mailing report shows the notice letters were timely mailed to the pooled interest owners with only four letters to overriding royalty interest owners returned as unlocatable.

Newspaper publication in the Carlsbad Current-Argus was timely published to account for any unlocatable parties or any contingencies regarding notice.

Mr. Hearing Examiner, at this time $I$ request that Exhibits $A$ and $B$ and all sub-exhibits be admitted into the record and that case 23379 be taken under advisement. I am available to answer any questions. Thank you.
(Cimarex Energy Co. Exhibit A and
Exhibit $B$ were marked for
identification.)
THE HEARING EXAMINER: Thank you. Any
questions, Mr. Garcia?
THE TECHNICAL EXAMINER GARCIA: No questions.

THE HEARING EXAMINER: Mr. Harrison?

THE TECHNICAL EXAMINER HARRISON: No. THE HEARING EXAMINER: Thank you. And I have no questions. So with that, the exhibits in case 23379 will be admitted into the record and the case will be taken under advisement, and you can do your happy dance now.
(Cimarex Energy Co. Exhibit A and Exhibit $B$ were received into evidence.) MR. SAVAGE: All right. Mine's a little bit less excited this morning, but thank you. I appreciate the opportunity.

THE HEARING EXAMINER: With that, we're on item 32, case 23367. MRC Permian Company.

MS. VANCE: Good morning, Mr. Hearing Examiner, Mr. Garcia and Mr. Harrison. Paula Vance with the Santa Fe office of Holland \& Hart on behalf of the applicant, MRC Permian Company.

THE HEARING EXAMINER: Thank you. Are there any other interested persons for case 23367? Hearing none, MRC may proceed.

MS. VANCE: Thank you, Mr. Hearing
Examiner. In case 23367, MRC seeks to pool all uncommitted interests in the Bone Spring Formation, and that is the Malaga Bone Spring and the pool code is 42780.

And that's underlying a standard 320-acre overlapping spacing unit comprised of the south half/south half of Sections 14 and 15, Township 24 South, Range 28 East, Eddy County, New Mexico. And MRC seeks to initially dedicate this spacing unit to the proposed George 14 and 15-24S-28E, number 114H and also the number 134 H wells.

In these cases, we have included a copy of the application, provided the compulsory pooling checklist as well as the affidavits of landman Hanna Bollenbach and geologist Dan Brugioni, both of whom have previously testified before the Division and their credentials have been accepted as a matter of record.

Ms. Bollenbach affidavit is Exhibit C, which includes sub-Exhibits C1, an overlap diagram, and you will see that the proposed spacing units completely overlaps one of Matador's wells, which is the Tiger 14-24S-28E, RV number 124 H .

And after that, you'll see Exhibit C2, which is a copy of the overlapping notice that was sent out. And I would like to point out you'll see that that information that was included was only for the 114 H well and the reason for that is this will be the initial well that is drilled to perfect the
spacing unit.
The 134 H will be an infill well, so we only provided notice with information regarding the 114 -- or the George 114H.

Following that is Sub-Exhibit C3, which are the C102s. After that, we've got the -- which is Sub-Exhibit C4, a land tract map. C5, an ownership schedule and a list of the uncommitted working interest owners that we are seeking to pool.

C6 is the -- a list of overwriting royalty interests and non-participating royalty interests that we are seeking to pool. And then C7 is a sample well proposal letter with AFEs. And C8 is a chronology of contacts.

This is followed by Mr. Brugioni's affidavit, which is Exhibit D, and includes Sub-Exhibits D1, a locator map, D2, a SEPC structure map, and D3, a structural cross-section. And in this case, Mr. Brugioni did not observe any faulting, pinch-outs or other geologic impediments to the horizontal drilling of these wells.

And then lastly is Exhibit E, a self-affirmed statement of notice with sample letters that were timely mailed on February 10, 2023. And Exhibit F, an affidavit of notice of publication which
was timely published on February 14, 2023.
Unless there are any questions, I would ask that all exhibits and sub-exhibits be admitted into the record and that case 23367 be taken under advisement by the Division at this time. And of course, $I$ stand by for any questions that the Division may have.
(MRC Permian Company Exhibit A through Exhibit $F$ were marked for identification.)

THE HEARING EXAMINER: Thank you.
Mr. Garcia, questions?
THE TECHNICAL EXAMINER GARCIA: I have one question, and this might be a technical glitch on our side because our system's running slow. Is your newspaper affidavit in your exhibit packets? Because I see the -- like the newspaper clipping, but the page before, it's just a white blank page on my screen and so $I$ just wanted to make sure it's in there.

MS. VANCE: It is. And I'm happy to email a copy directly to you of the hearing packet if that would be helpful, but the exhibit packet we filed does have the complete notice -- affidavit of notice of publication included.

THE HEARING EXAMINER: Yeah -- it was
something -- it must be something with the filing because it's -- that's what $I$ see also. So if you could just do a supplemental filing. It's the affidavit page that's missing.

MS. VANCE: Okay.
THE HEARING EXAMINER: So there's a
blank for the affidavit page and then there's the newspaper notice is the last page. So it's
that -- something got turned upside down or something.
MS. VANCE: I will do the supplemental
filing and then as I said, I'll email a copy to you, Mr. Brancard and Mr. Garcia and Mr. Harrison, so you've got a copy.

THE TECHNICAL EXAMINER GARCIA: Thank you. And that's all my questions.

THE HEARING EXAMINER: Thank you.
Mr. Harrison, anything?
THE TECHNICAL EXAMINER HARRISON: I have no questions. Thank you.

THE HEARING EXAMINER: Thank you.
Mr. Garcia caught my question, so I have no questions. So with that, are there any other interested persons for case 23367? Hearing none, this case will be taken under advisement and all the exhibits will be made into the record. We will leave the record open just
to get the correct newspaper affidavit in the file.
(MRC Permian Company Exhibit A through Exhibit $F$ were received into evidence.) MS. VANCE: That's easy enough. And you had your head down and you missed my happy dance, Mr. Brancard.

THE HEARING EXAMINER: You know we post all these things on TikTok, so don't worry.

MS. VANCE: Oh, my goodness.
THE HEARING EXAMINER: Just kidding.
MS. VANCE: Hope so.
THE HEARING EXAMINER: All right. With that, we are on items 23397, 23398. These are 33 and 34 on our worksheet. Mewbourne Oil Company.

MS. VANCE: Good morning again, Mr. Hearing Examiner, Mr. Garcia and Mr. Harrison. Paula Vance with the Santa Fe office of Holland \& Hart on behalf of the applicant, Mewbourne Oil Company.

THE HEARING EXAMINER: Thank you. Are there any other interested persons in cases 23398, 23399 -- sorry -- 23397, 23398?

MR. SAVAGE: Good morning. Darin Savage on behalf of Diamond Energy Production Company LP, and that is in case 23398.

THE HEARING EXAMINER: All right. I
think $I$ have an entry here for WPX Energy, also.
MR. SAVAGE: That is correct. And also WPX Energy Permian LLC, which has merged with Devon.

THE HEARING EXAMINER: Anyone else then
for these cases? And so let me just check. Does Devon object to this case going forward by affidavit?

MR. SAVAGE: No objection.
THE HEARING EXAMINER: Thank you. With that, Mewbourne may proceed.

MS. VANCE: Thank you, Mr. Hearing
Examiner. I would like to present these cases. However, we will need to continue to the April 20th docket to perfect notice, and I will explain that as I go through the exhibit packet.

So in these cases, Mewbourne is seeking to -- seeking approval to pool all uncommitted interests in the Purple Sage Wolf Camp, and that is pool code 98220 and that is underlying acreage that is all in Township 22 South, Range 27 East, Eddy County, New Mexico.

In case number 23397, Mewbourne seeks to pool a standard 640-acre, more or less, overlapping horizontal spacing unit comprised of the north half of Sections 22 and 21 and initially dedicate the spacing unit to the proposed Papa Grande $22 / 21$ W0AD Fee 1 H and
the Papa Grande $22 / 21$ W0HA Fee 1 H wells.
And then in case 23398, Mewbourne seeks to pool a standard 640-acre, more or less, horizontal well spacing unit, and that's comprised of the south half of Sections 22 and 21, and initially dedicate this spacing unit to the proposed Papa Grande 22/21 WOIL Fee 1H and the Papa Grande $22 / 21$ WOPM Fee 1 H wells.

So in our packet in these cases, we have included a copy of the applications, provided the compulsory pooling checklists as well as a self-affirmed statement -- or self-affirmed statements of -- from the landman Tyler Jolly and geologist Tyler Hill, both of whom have previously testified before the Division and their credentials have been accepted as a matter of record.

Mr. Jolly's self-affirmed statement is Exhibit A, which includes Sub-Exhibits A1, which is an overlap diagram and you will see that the overlap is on the west half of Section 22 for these proposed wells and that overlap is -- or that existing well is the Grande No. 1 and in that spacing unit.

So you'll see Exhibit A2. We have -- I think someone's unmuted. Okay. A2 is a overlap notice. And so originally, we sent out a overlapping
notification and that was dated on March 7, 2023, and that was going to expire.

Obviously in our applications, we were not originally seeking approval of a overlapping spacing unit, but of course I've provided the information to bring that to the attention of the Division. However, we noticed a defect in that notice and we have corrected it and therefore, we re-sent out notice.

That amended notice -- and you'll see that in the letterhead, and that's dated March 30, 2023, and that should expire by the time we get to that April 20th docket. And therefore, that's why we're requesting this -- these cases be continued so we can perfect notice on the overlap -- overlapping notification.

So following that is
Exhibit -- Sub-Exhibit A3, which are the C102s, and then this is followed by a four land tract map and a list of the uncommitted working interest owners that we are seeking to pool. A5 is a sample well proposal or sample well proposal letters and AFEs. And A6 is a chronology of contacts.

This is followed by Mr. Hill's
self-affirmed statement, which is Exhibit B, and
includes Sub-Exhibit B1, which is a locator map, SEPC structure and cross-section map for the north half, and then $B 2$ is a stratigraphic cross-section for the north half and then B3 and B4 are the same, but for -- same type of sub-exhibits, but for the south half.

In these cases, Mr. Hill did not observe any faulting, pinch-outs or other geologic impediments to the horizontal drilling of these wells. And then lastly is Exhibit C, which is my self-affirmed statement of notice with sample letters that were timely mailed on March 17, 2023. And Exhibit D, an affidavit of notice of publication which was timely published on March 17, 2023, and hopefully shows up on your end.

But unless there are any questions, I would ask that all exhibits and sub-exhibits be admitted into the record and that case numbers 23397 and 23398 be taken under advisement by the Division at this time, leaving open our continuing the case to perfect the notice. I stand by for any questions.
(Mewbourne Oil Company Exhibit A through Exhibit $D$ were marked for identification.)

THE HEARING EXAMINER: Thank you. Any
questions from Devon?
MR. SAVAGE: No questions,
Mr. Examiner. Thank you.
THE HEARING EXAMINER: Mr. Garcia?
THE TECHNICAL EXAMINER GARCIA: I guess
same issue $I$ have is -- it's not the affidavit in this case, but I have a blank page on case 23397 right before the Carlsbad Current-Angus [sic] affidavit. Not sure what it's supposed to be.

MS. VANCE:
You're -- where -- what -- you're saying you have a blank page. Where was that again, Mr. Garcia?

THE TECHNICAL EXAMINER GARCIA: In case 23397, it's PDF page 56.

MS. VANCE: Okay. So that would be our affidavit of notice of publication for that 23397. So I guess we'll have to do another supplemental filing for that and hopefully it shows up on your end. I have it. It was a part of the hearing packet. So must be whatever glitch is going --

THE HEARING EXAMINER: Well, we have the affidavit of publication. It's just the page before that that's blank.

THE TECHNICAL EXAMINER GARCIA:
Correct.

THE HEARING EXAMINER: So we're just curious as to whether there was something really, really important there that we can't see.

MS. VANCE: Well, I guess my question would be do you see -- the page before that is the mailing report; do you have that?

THE TECHNICAL EXAMINER GARCIA: Yes. I
have mailing report, blank page and then Carlsbad Angus [sic] affidavit. So I'm not sure what's missing.

MS. VANCE: And do you have both of the affidavits of notification --

THE TECHNICAL EXAMINER GARCIA: Not for the newspaper.

MS. VANCE: You have it for both cases, though? Because there should be two.

THE TECHNICAL EXAMINER GARCIA: No, I don't think so.

MS. VANCE: So you're saying you only have a affidavit of notice of publication for case 23397, but not case 23398?

THE TECHNICAL EXAMINER GARCIA: Sorry. Zooming in. I am super blind. The affidavit in here is for case 23398, but there is no affidavit for 23397. Sorry.

MS. VANCE: That is really weird.
MR. RANKIN: Gentlemen, this is Adam Rankin. I'm just -- for some reason, I'm looking at the filing on the case file and I'm seeing both affidavits show up and with the Division stamped information on it. So I mean, I'm not sure what happened, but at least from my viewpoint looking at the case file, I'm seeing both affidavits in the record.

THE TECHNICAL EXAMINER GARCIA: Yeah. That's where I'm at, too. So I guess I'll download them and make sure it shows up there and I may be in touch, I guess.

MS. VANCE: Can -- do you mind also double checking on the case that $I$ just presented for MRC Permian to see if maybe it's -- 'cause it's -- I'm going to double check that, too, because it was a part of the hearing packet --

THE TECHNICAL EXAMINER GARCIA: Yeah. I --

THE HEARING EXAMINER: It's identical for both cases and in both cases, we have, as the last page, page 57, the affidavit of publication. There's just a blank page before that that we're hoping doesn't include something really important.

THE TECHNICAL EXAMINER GARCIA: Yeah. I see it now, Bill. I downloaded the cases to my desktop and it pops up once you fully download, but if you view them just out of our case files, there's blank pages in it. So ...

THE HEARING EXAMINER: Okay. So there is something on page 56?

THE TECHNICAL EXAMINER GARCIA: Yeah. It's a secondary Carlsbad affidavit.

MS. VANCE: And also, Mr. Hearing Examiner, Mr. Garcia, $I$ just went on, prompted by my colleague, Mr. Rankin, and I just checked the -- on the images, OCD images, and I can see the entire affidavit of notice of publication for our MRC George case as well.

THE TECHNICAL EXAMINER GARCIA: Okay.
Yeah. I do know we're having some technical difficulties on our side. Our servers like to run slow sometimes 'cause we get our data scraped massively by operators and third-party people. So -THE HEARING EXAMINER: Well, I concur with Mr. Garcia. I just downloaded the document and then the affidavit pops -- the second affidavit does pop up in the download. It's just on the screen in our case file, there's a missing page. That's all.

THE TECHNICAL EXAMINER GARCIA: Yeah. So I think we are okay for these two cases --

THE HEARING EXAMINER: Yeah. I think
so, too.
MS. VANCE: Including the MRC George
case as well?
THE HEARING EXAMINER: Yes.
MS. VANCE: Okay.
THE HEARING EXAMINER: No. No. The MRC George case -- I don't know. Did you download that one, Mr. Garcia?

THE TECHNICAL EXAMINER GARCIA: I am checking now.

THE TECHNICAL EXAMINER HARRISON: I believe --

THE HEARING EXAMINER: Maybe you should try that.

THE TECHNICAL EXAMINER GARCIA: You said you did, John?

MS. VANCE: I see Mr. Harrison was nodding. It looks like he was able to find it.

THE TECHNICAL EXAMINER HARRISON: I was
able to find that. I was just going to confirm that same situation for both these cases, that downloading them, you can see all of those -- the presented
materials. I don't think there's any need to supply that in a supplemental application, but I'll leave that up to the Examiner.

THE TECHNICAL EXAMINER GARCIA: Yep, I can see it. Sorry for my slow internet.

MS. VANCE: I think that means I can really do a happy dance because hopefully I don't have to do any supplemental filing.

THE HEARING EXAMINER: I've just downloaded it and yes, it does pop up in the download. For some reason, it doesn't show up on our case file. So no need to file additional information on 23367.

MS. VANCE: Excellent.
THE HEARING EXAMINER: So with that, 23397, 23398, we're going to continue that; correct? To April 20th?

MS. VANCE: That's correct, Mr. Hearing Examiner.

THE HEARING EXAMINER: To allow the time to run on the notice for the overlap. With that, the exhibits will be admitted into 23397, 23398 and the case will be continued to April 20th -- cases.
(Mewbourne Oil Company Exhibit A
through Exhibit $D$ were received into evidence.)

MS. VANCE: Thank you.
THE HEARING EXAMINER: Thank you.
Okay. We are on -- oh, I'm sorry. Ms. Vance, can you come back on board? I have to give you the lecture; okay? From what I understand, case 23397 is located quite close to the Carlsbad Brine Well Remediation Project. So please reach out to the Division when you're dealing -- having to deal with the APD.

There may be conditions they may want to place on the APD for the well. It's not something we deal with here in this case, but $I$ just want to put you on notice that they are still looking at conditions to wells that are very close, like within a mile or so, of the remediation project.

MS. VANCE: Thank you, Mr. Hearing Examiner. I will make sure that Mewbourne is aware of that and coordinate with them accordingly.

THE HEARING EXAMINER: Thank you.
MS. VANCE: Thank you.
THE HEARING EXAMINER: So with that, with -- we're on item 35, case 23403. Legacy Reserves Operating.

MR. PARROT: Good morning,
Mr. Brancard, Mr. Garcia, Mr. Harrison. Thanks very much for your time today. I'm James Parrot with

Beatty \& Wozniak representing Legacy Reserves Operating.

THE HEARING EXAMINER: Thank you. Do you want to consolidate this with the next case or do them separately?

MR. PARROT: You read my mind. I would very much appreciate that.

THE HEARING EXAMINER: All right. So we will also call case 23404. Are there any other interested persons for cases 23403, 23404? Hearing none, Legacy may proceed.

MR. PARROT: Thank you. So 23403 and 23404 are related and nearly identical applications to pool all and committed interest into approximately 240-acre units for the Bone Spring Formation covering the west half/east half of Section $33 / 18$ South, 31 East and the west half/northeast of Section 4/19 South, 31 East and then the east half/east half of Section 33 and the east half/northeast of Section 4 respectively.

So 403 is the west half of the east half and 404 is the east half of the east half. And as the Division has given me permission, I'll present both of these applications together.

So the Bone Spring units are committed
to the following wells: In 403, it is the Jet Fed Com 401H, 501 H and 601 H wells and in 404 , it is the Jet Fed Com $402 \mathrm{H}, 502 \mathrm{H}$ and 602 H wells. Neither unit includes proximity tracts and the exhibit packets that were filed a couple days ago contain the checklist applications and affidavits.

As you'll see, Exhibit $A$ is the pooling checklist, Exhibit $B$ includes the applications, the Exhibit C include the affidavits from Legacy's land witness, Taylor Thoreson. Ms. Thoreson has previously testified before the Division and had her qualifications accepted as those of an expert.

Ms. Thoreson notes that all working interest owners in these units have voluntarily committed their interests. So these applications are only pooling overriding royalty interests.

C1 includes the general location maps. C2 contains the Form 102 s and Ms. Thoreson notes on Exhibit $C$ there are no overlapping spacing units. C3 depicts the spacing units and wells. C4 covers the ownership and C5 provides a chronology of contacts.

Exhibit D is the affidavit of EOG -- sorry -- Legacy's geology witness, John Stewart. Mr. Stewart has previously testified before the Division and had his qualifications accepted as
those of an expert. D1/D4 present locator maps and the A-to-A prime locations.

D2, D5 and D8 are structure maps off the top of the Bone Spring Formations, first, second and third. And Mr. Stewart states the wells are representative of the area geology and he observed no faulting, pinching or other geologic hazards to developing horizontal wells.

D3, D6 and D9 are cross-sections of the first, second and bone -- first, second and Third Bone Spring Formations with gamma-ray resistivity and porosity logs and the targeted interval.

Exhibit E is the notice affidavit showing that notice letters were mailed to addresses of record for all the overriding royalty interest owners and immediately after, the copy of the notice letter that was mailed is a list of all of the owners and the status of mailing, followed by the green cards.

Exhibit A [sic] is the affidavit of publication in the Argus.

So with that, I'd ask that the exhibits for both 23403 and 23404 be admitted into the record and the matters be taken under advisement.
(Legacy Reserves Operating LP Exhibit A
through Exhibit $F$ were marked for identification.)

THE HEARING EXAMINER: Thank you.
Mr. Garcia?
THE TECHNICAL EXAMINER GARCIA: No
questions.
THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: Just as a matter of record, Mr. Stewart has not testified before the Division before?

MR. PARROT: I believe that -- well, I believe he submitted affidavits in prior matters. Would you like me to present his qualifications?

THE TECHNICAL EXAMINER HARRISON: No, I don't think that's necessary. I just didn't confirm if he had previously presented.

MR. PARROT: Okay.
THE TECHNICAL EXAMINER HARRISON: And no further questions. Thank you.

MR. PARROT: Thank you.
THE HEARING EXAMINER: Thank you.
Okay. So I'm really confused here. Your application says you're only pooling overriding royalty interest owners.

MR. PARROT: Correct.
THE HEARING EXAMINER: Okay. So when we get to Exhibit $C 4$, which shows working interest ownership, clearly states that COG and Concho are uncommitted.

MR. PARROT: That is a typo in Exhibit C4 and we can submit corrected Exhibit C4s. COG and Concho have both signed JOAs for these units. So that's a typo and we are not asking that COG or Concho be designated as uncommitted or seeking a penalty against either party.

THE HEARING EXAMINER: Okay. So then you say that your pool parties are in C4, but there's no list of overriding royalty interests in Exhibit C4. So who's being pooled here?

MR. PARROT: So all of the parties on the -- so if you scroll down to Exhibit E right before the green cards, there's a list of all of the parties who are being pooled and when we submit new Exhibit C4s, we can include that list on the new Exhibit C4.

THE HEARING EXAMINER: Okay.
'Cause -- because in your checklist where it says,
"Pool parties," it says, "Exhibit C4 and C5." So they're not there.

MR. PARROT: They are not there. I
agree. And I will correct those Exhibit C4s and get them submitted today if that pleases the Division.

THE HEARING EXAMINER: Yes. So C4 to get rid of the uncommitteds and to add the overrides that are being pooled.

MR. PARROT: Yes, sir.
THE HEARING EXAMINER: Okay. I --
MR. PARROT: I apologize for confusing you. I can definitely understand why that was confusing.

THE HEARING EXAMINER: It doesn't take much. So -- okay. With that, I think I'm done then. And so are there any other interested persons for case 23403, 23404? Hearing none, the exhibits will be admitted into the record. The case will be taken under advisement, the record left open for revised Exhibit $C 4$ to provide us with corrections about who's really being pooled here.
(Legacy Reserves Operating LP Exhibit A
through Exhibit $F$ were received into evidence.)

MR. PARROT: Thank you very much. I will not do a happy dance 'cause $I$ don't want to offend everybody watching. And thank you very much and have a great day.

THE HEARING EXAMINER: Thank you. All right. With that, we are on item 37, case 23413. Steward Energy.

MS. MCLEAN: Hello. Jackie McLean with Hinkle Shanor on behalf of Steward Energy.

THE HEARING EXAMINER: Thank you. We have, I believe, an entry from Fasken Oil and Ranch?

MR. RANKIN: Morning, Mr. Examiner. Adam Rankin with the Santa Fe office of Holland \& Hart appearing on behalf of Fasken in this case.

THE HEARING EXAMINER: Does Fasken object to this case being heard by affidavit?

MR. RANKIN: We do not, Mr. Examiner, but at some point, I'll just ask Ms. McLean to confirm that Fasken is not being a party being pooled in this case.

THE HEARING EXAMINER: Thank you. Are there any other interested persons for case 23413? Hearing none, Steward Energy may proceed.

MS. MCLEAN: Thank you, Mr. Examiner. In case number 23413, Steward seeks to pool all uncommitted interests in the San Andres Formation underlying a 320 -acre standard horizontal spacing unit comprised of the west half of Section 10, Township 13 South, Range 38 East in Lea County, New Mexico.

And this spacing unit will be dedicated to the Lawyer Up Fee \#5H well, which will be drilled from a surface hole location in Unit $B$ of Section 15 to a bottom hole location in Unit $C$ of Section 10.

And the completed interval of the Lawyer Up Fee \#5H well will be located within 330 feet of the quarter-quarter section line separating the west half/west half and east half/west half of Section 10 to allow for the creation of a 320-acre standard horizontal spacing unit.

And we have provided three exhibits in our packet. Exhibit $A$ is the land professional's testimony and related land exhibits, which include the plat of tracts, ownership interests, pooled parties, well proposal letter, summary of communications, the notice of hearing and C102.

And also, to address Mr. Rankin's concerns, we did submit a notice of amended exhibits yesterday and submitted an amended Exhibit A3, which if you go to the last page of amended Exhibit A3, it removes Fasken from the pooling.

And then we have Exhibit B, geology testimony of Mr. Seals, which includes a location map, SEPC structure map and stratigraphic cross-sections. And then Exhibit $C$ is notice testimony,
which includes the sample notice letter sent to the parties to be pooled, a chart of the parties to be pooled. Again, Fasken -- we did send them notice, but they are not being pooled as reflected on the amended Exhibit A3. And then we also timely published in the Hobbs News-Sun on March 15, 2023.

And with that, unless there are
additional questions, $I$ ask that Exhibits $A, B$ and $C$ be admitted into the record and that case number 23413 be taken under advisement.
(Steward Energy II, LLC Exhibit A, Exhibit B, and Exhibit $C$ were marked for identification.)

THE HEARING EXAMINER: Thank you.
Fasken, any further questions?
MR. RANKIN: No, Mr. Examiner. Just slightly. We just wanted to make sure that was the case, that as an uncommitted owner, we are being removed from -- that Fasken's being removed from the pooling and Ms. McLean addressed that question and confirmed. So no further questions from me. Thank you.

THE HEARING EXAMINER: Thank you. Mr. Garcia?

THE TECHNICAL EXAMINER GARCIA: Did
they let you pick the well name? Never seen well names called "Lawyer Up."

MS. MCLEAN: I know. I just like always -- I just want to ask people what is going through your head with all of these fun names?

THE TECHNICAL EXAMINER GARCIA: Maybe they were expecting opposition.

MS. MCLEAN: I have a lot that I always think about, too, but that's outside of our pay band; right?

THE TECHNICAL EXAMINER GARCIA: Yeah. I have no questions.

THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: No questions from me either.

THE HEARING EXAMINER: Okay. All right. Once again, I'm really confused as to who's being pooled here; okay?

MS. MCLEAN: So if --
THE HEARING EXAMINER: So you have an Exhibit A3. I'm looking at the revised version; okay? It lists a whole bunch of uncommitted parties, but then at the end, there's uncommitted parties and some of them are in yellow and some of them are not and there's no indication about what that means.

MS. MCLEAN: So in the
note -- sorry -- the Exhibit A, the self-affirmed statement of Taylor Warren, paragraph eight. It says, "Exhibit A3 contains the plat identifying ownership by tract in the unit," and it shows the interests that Steward seeks to pool highlighted in yellow.

So that continues on to the amended Exhibit A3, that the parties that we are seeking to pool are highlighted in yellow. And I believe that that is it. It's just the parties highlighted in yellow.

THE HEARING EXAMINER: Okay. So -- well, all right. Amuse me. What happens to these uncommitted working interest owners who are not being pooled by this order?

MS. MCLEAN: I believe some of them already have agreements in place. With Fasken, I believe they're just trying to finalize the JOA and then that shouldn't be an issue anymore. And everyone wanted to continue going forward with today's hearing due to lease expirations and other issues.

So I think -- and Mr. Rankin can correct me if I'm wrong, but this -- they should be -- the issue with Fasken should be resolved fairly quickly.

THE HEARING EXAMINER: Okay. And then your Exhibit $C 2$ says who's getting notice, which I guess includes all the people in yellow. They did seem to make the cut. And then there's a few others in here like the Boy Scouts. Not sure how they got notice, but --

MS. MCLEAN: I think sometimes with these estates, we get other offshoots of that because as you can see, we're not pooling them either. But everyone that we are seeking to pool in case number 23413 did receive notice and $I$ believe we got all of them back, which is oftentimes rare.

THE HEARING EXAMINER: Okay. So in order to understand Exhibit A3, you have to read Exhibit A?

MS. MCLEAN: Correct, Mr. Examiner. Would you like us to do a supplemental affidavit as well referencing the amended Exhibit A3?

THE HEARING EXAMINER: No, that's fine.
I guess I would like you to just -- why don't you amend your Exhibit A3 just to put a statement on there, "Pool parties are indicated in yellow."

And the reason for that is that if you go to your checklist, which will be attached to the order, it will say, "Pool parties," -- if you want to
find out from the order where the pool parties are, it will tell you to go to Exhibit A3, not to Exhibit A. So --

MS. MCLEAN: We can certainly do that,
Mr. Examiner. Not a problem.
THE HEARING EXAMINER: Okay. All
right. Well, yeah. That's fine. If you want to notify lots of people who you don't need to notify, that's great. And yes -- and it's often -- you want to make sure that there aren't people who may have gotten an interest some other way.

MS. MCLEAN: More is better in the case of the OCD in terms of paperwork, I find.

THE HEARING EXAMINER: Yes. All right. Well -- all right. Are there any other interested persons then for case 23413? Hearing none, the exhibits will be admitted into the record, case will be taken under advisement, and we'll have a revised Exhibit A3. All you need is a sentence.
(Steward Energy II, LLC Exhibit A, Exhibit B, and Exhibit $C$ were received into evidence.)

MS. MCLEAN: Thank you, Mr. Examiner.
THE HEARING EXAMINER: Thank you. With
that, we are on items 38, 39 and 40 , cases 23421,

23422, 23423. Colgate Operating.
MS. MCLEAN: Jackie McLean with Hinkle Shanor on behalf of Colgate Operating.

THE HEARING EXAMINER: All right. We have an entry from a series of parties. Red River Energy Partners, Gosier, if I pronounced that correctly, Energy, Latham Energy.

MR. BRUCE: Yes, Mr. Examiner. Jim Bruce on behalf of those three entities.

THE HEARING EXAMINER: And --
MR. BRUCE: And I have no idea how to pronounce that second company. So ...

THE HEARING EXAMINER: Okay. All right. And, Mr. Bruce, I believe you have filed an objection, but you withdrew the objection; is that correct?

MR. BRUCE: That is correct, and my clients have no objection to Colgate proceeding by affidavit.

THE HEARING EXAMINER: Thank you. Are there any interested persons for cases 23421, 422, 423? Hearing none, Colgate Operating may proceed.

MS. MCLEAN: Thank you, Mr. Examiner. In case numbers 23421, 23422 and 23423, Colgate Operating is seeking order to pool additional
uncommitted interests under the terms of Division Order Numbers R-22179, R-22181 and R-22812 and -- or 182. Sorry.

And on July 11, 2022, the Division entered the orders, which pooled uncommitted interests in the Bone Spring and Wolf Camp Formations, underlying a standard horizontal spacing unit comprised of the south half/south half and north half/south half of Sections 35 and 36, Township 19 South, Range 28 East in Eddy County, New Mexico.

And the orders dedicated the units to the Uluru 35 State -- 35 Fed State Com 133H, 124H, 134 H and 203 H wells.

Since the orders were entered, Colgate identified additional interests in the unit that had not been pooled under the terms of the order and at this point, Colgate is actually seeking to pool only one additional interest owner in these cases and we've actually received the notice returned for that individual.

The exhibit packets submitted to the Division for case numbers 23421, 23422 and 23423 all contain Exhibit $A$, which is land professional's testimony and related land exhibits, which include the application and proposed notice of hearing, the orders

Colgate is seeking to reopen, a plat of tracts, ownership interest and the additional interest owner to be pooled, a sample well proposal letter and AFE and a chronology of contact.

And then we have Exhibit B, which is notice testimony setting out when we sent the notice letter, the date the return was received, the certified mail cards in support and then finally, an affidavit of publication showing that was timely published in the Carlsbad newspaper.

And with that, I ask that Exhibits A and $B$ be admitted into the record in case numbers 23421, 23422 and 23423 and that these cases be taken under advisement.
(Colgate Operating, LLC Exhibit A and
Exhibit $B$ were marked for
identification.)
THE HEARING EXAMINER: Thank you.
Mr. Garcia, questions?
THE TECHNICAL EXAMINER GARCIA: No questions.

THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: No questions.

THE HEARING EXAMINER: Thank you. All
right. So once again, I'm confused. So I'm looking at 423. Your sample AFE letter is sent to somebody called Dome Petroleum Corp. Is that just a sample letter or ...

MS. MCLEAN: Yes, that's a sample letter and that -- I believe that was for the original case actually, just a sample of the well proposal letter that was sent out when all of the well proposal letters were sent out.

THE HEARING EXAMINER: And so what you're saying then is in this case, the same letter was sent to the Williamson Estate?

MS. MCLEAN: Yes, that's correct.
THE HEARING EXAMINER: Okay. So -- and then scrolling down to the notice on 423, who's Baber Well Servicing Co.?

MS. MCLEAN: Mr. Examiner, I believe that Baber is related to the entities that had entered an appearance in this case, but that we are no longer seeking to pool.

THE HEARING EXAMINER: Okay.
MS. MCLEAN: And send out notice to everyone.

THE HEARING EXAMINER: Oh, yeah.
Here's an odd one. So in -- the tracts are different
for each of these; right?
MS. MCLEAN: Yes.
THE HEARING EXAMINER: So I'm looking at 23423, Exhibit A3, and it shows a tract one, two and three.

MS. MCLEAN: I'm scrolling there. One, two and three, yes.

THE HEARING EXAMINER: Right. Scroll down to the next page and it tells you what the interest owners are and somehow, Williamson and others own interests in tract five.

MS. MCLEAN: Yes. I -- yes, that is correct. So there must be a typo on this chart somewhere.

THE HEARING EXAMINER: Well, I think what it is is that in your other units, there is a tract five.

MS. MCLEAN: Right.
THE HEARING EXAMINER: And so it kind of -- you -- they must have copied the interest thing from one case to the other.

MS. MCLEAN: Yes. If you look at, like for example, case number 23422, there are tracts one through five and tract five is also in purple and then Williamson is identified in tract five with that. So

I think you're correct and they just carried that over instead of putting tract three.

THE HEARING EXAMINER: Okay. So if you could just correct that Exhibit A3 then.

MS. MCLEAN: Okay.
THE HEARING EXAMINER: All right.
MS. MCLEAN: And that's for --
THE HEARING EXAMINER: I think it's just that one case. The other cases, I think, are fine.

MR. BRUCE: Mr. Examiner, may I make a brief statement?

THE HEARING EXAMINER: Mr. Bruce.
MR. BRUCE: Yeah. I'm alive.
THE HEARING EXAMINER: Just identifying you for the record. That's all.

MR. BRUCE: I just -- I haven't looked at the exhibits. I just wanted to verify that my three clients and then the -- their predecessors and Baber Well Servicing, the heirs of a Mr. Smithson are not being pooled in this proceeding. If Ms. McLean could just verify that for me, that's all I need to know.

MS. MCLEAN: Yes, that's correct. All -- the only person or entity we're seeking to pool

| 1 | in these three cases is now Ralph E. Williamson heirs. |
| :---: | :---: |
| 2 | We're no longer pooling Mr. Bruce's clients. |
| 3 | MR. BRUCE: Thanks. |
| 4 | THE HEARING EXAMINER: Thank you. Yes. |
| 5 | And that's pretty clear from the exhibit. It's the |
| 6 | only one with the word "yes" next to it. So -- |
| 7 | MR. BRUCE: What is the meaning of |
| 8 | "yes"? |
| 9 | THE HEARING EXAMINER: Yeah. All |
| 10 | right. So any other comments or questions on cases |
| 11 | 23421, 23422, 23423? Hearing none, the exhibits will |
| 12 | be admitted into the record. These cases will be |
| 13 | taken under advisement and I believe we're just |
| 14 | correcting Exhibit A3 on 23423. |
| 15 | (Colgate Operating, LLC Exhibit A and |
| 16 | Exhibit B were received into evidence.) |
| 17 | MS. MCLEAN: Yes, Mr. Examiner. Thank |
| 18 | you. |
| 19 | THE HEARING EXAMINER: Thank you. All |
| 20 | right. Dana, you're still doing okay? |
| 21 | THE REPORTER: Yes. I'm still here. |
| 22 | THE HEARING EXAMINER: All right. All |
| 23 | right. With that, we are on case 23424. Silverback |
| 24 | Operating. |
| 25 | MR. HOLLIDAY: Okay. Good morning, |
|  | Page 116 |

Mr. Hearing Examiner, Mr. Technical -- or technical advisors. Ben Holliday with the San Antonio office of Holliday Energy Law Group appearing on behalf of Silverback Operating II, LLC.

THE HEARING EXAMINER: Thank you.
Welcome. And we have an entry of appearance from Fasken Oil and Ranch.

MR. RANKIN: Morning, Mr. Examiner.
Adam Rankin with the Santa Fe office of Holland \& Hart appearing on behalf of Fasken in this case.

THE HEARING EXAMINER: Thank you. Does
Fasken object to this case being heard by affidavit?
MR. RANKIN: Does not.
THE HEARING EXAMINER: Are there any other entries of appearance for case 23424? Hearing none, Silverback may proceed.

MR. HOLLIDAY: All right. Thank you,
Mr. Brancard. Before I get started, I can answer
Mr. Garcia's question. In a former life, I was a
in-house landman and naming wells was one of our favorite things to do.

In fact, $I$ think our crowning
achievement -- we had an individual who was tough to work with and who had a nickname. So we named the -- we named a well after him. It was the "Fat

Elvis" and it made it through all of our filings and there was the hottest competition to see who could come up with well names. It was a lot of fun.

So I actually -- when I pulled the list today, I wanted to commend everybody. I -- it's pretty exciting.

So in this case, Silverback Operating II seeks to pool all uncommitted interests within a standard 320 -acre horizontal well spacing unit in the Penasco Draw SA-Yeso Formation, and that's going to be pool code number 50270.

The proposed spacing unit is comprised of the north half of Section 9, Township 19 South, Range 25 East in Eddy County for the Morrison 101H, $102 \mathrm{H}, 103 \mathrm{H}$ and 104 H wells.

Our exhibit package provides the compulsory pooling checklist and the application along with the notice for the docket. Silverback's witnesses today in this matter are landman Larry Coshow and geologist Nate Gilbertson, both of whom have been previously qualified as experts by the Division.

So if you move now to Exhibit A, this is the self-affirmed statement of Silverback landman Larry Coshow. He provides a number of exhibits,
including Exhibits A1 through A8, and I'll just run through those briefly. A1 is a copy of the stamped application and notice provided in this matter.

A2 is our general location map depicting the location of the proposed Morrison spacing unit. Exhibit A3 contains the C102s for the four wells at issue in this case. Exhibit A4A is a plat of the proposed spacing unit along with our tract numbers. As you can see, there's two tracts in this case.

Exhibit A4B contains our ownership information for each of the tracts, both on a tract basis as well as a consolidated unit basis. And finally, Exhibit A4C is a list of our contact information for all the relevant parties in this case.

Exhibit A5 provides proof of notice to the relevant parties in this matter. So while none of the parties in this case number were deemed not locatable, out of an abundance of caution, Silverback caused notice by publication to be run in the Carlsbad Argus and Exhibit A6 is proof that this was timely done.

Exhibit A7 is a copy of the well proposal letter that was sent to the parties. And going over my exhibits this morning, I realized we did
not attach the AFEs to this. We have since filed them in this case. So you guys should have received them already and I'm happy to do a supplemental filing for that amended exhibit after this hearing is completed.

Finally, Exhibit A8 is a chronology of the contacts that details Silverbacks various communications and efforts to commit the parties to this matter.

Moving now to Exhibit B. This is the self-affirmed statement of the geologist Nate Gilbertson who provides Exhibits B1 through B6. As detailed in this statement, in completing his geologic study of the proposed horizontal spacing unit, Mr. Gilbertson did not observe any faulting, pinch-outs or other geologic impediments to horizontal development in the spacing unit.

B1 is Mr. Gilbertson's map identifying the spacing unit along with a trajectory of the proposed wells. B2 is our structure map depicting the Yeso Formation that is a target of the proposed horizontal spacing unit.

Exhibit B3 is our structural cross-section that corresponds with the A-to-A prime on the prior exhibit. On this Exhibit B3,

Mr. Gilbertson provides the general location of the Yeso interval that Silverback's targeting additionally.

Exhibit B4 is our gun barrel diagram of the proposed wells that depicts the location of the proposed wells within the targeted formation, while Exhibit B5 is our diagram of the proposed well trajectories within the targeted --

So finally, Exhibit B6. This depicts the location of the existing vertical wells in the proposed horizontal spacing unit and Mr. Gilbertson's affidavit details the measures that Silverback's taken to ensure that it's acting as a prudent operator in response to these wells while developing the proposed horizontal Morrison unit.

Finally, we can move to Exhibit C. This is my self-affirmed statement of notice providing that notice in this matter was timely provided. Exhibit C1 contains our table of contacts and mailing receipts, along with a sample notice letter that was provided to all parties.

And as I mentioned previously, while there were no unlocatable parties in this matter, out of an abundance of caution, I caused notice by publication to be run in the Carlsbad Argus more than
ten days in advance of this hearing and so we've provided that notice and affidavit in Exhibit C2.

If there are no further questions -- or as I'll stay around for further questions, but we ask that all exhibits, including A B and C, be admitted into evidence and that the Division take this matter under advisement. Thank you. I'm going to stand by for questions.
(Silverback Operating II, LLC Exhibit A, Exhibit B, and Exhibit $C$ were marked for identification.)

THE HEARING EXAMINER: Thank you. Any questions or concerns from Fasken? Kind of quiet over there. Let's try Mr. Garcia.

THE TECHNICAL EXAMINER GARCIA: One question, and just to clarify. Your checklist has some red lettering in it. Does the color mean anything?

MR. HOLLIDAY: No. That was in the template that we had used. It's funny 'cause I thought that was something the OCD wanted to see. So no, there's no significance to the lettering --

THE TECHNICAL EXAMINER GARCIA: Okay.
Yeah. You can turn it black in your template then. It was supposed to be black on ours.

MR. HOLLIDAY: Got it. We'll do it.
THE TECHNICAL EXAMINER GARCIA: I think that's all my questions. I was trying to -- sorry. I'm trying to skim through your exhibits real quick. You had a summary of contacts -- or a chronology of contacts with the pooled parties in here?

MR. HOLLIDAY: Yes. That would be in A8, I believe.

THE TECHNICAL EXAMINER GARCIA: Okay. I believe that is all of my questions.

THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: I have no questions. Thank you.

THE HEARING EXAMINER: All right.
Yeah. Sorry. I know we had some glitches with getting your stuff filed yesterday. So we're all sort of catching up here quickly.

THE TECHNICAL EXAMINER GARCIA: Yeah. I was going to make one broad statement, too, on that now, Mr. Brancard. To all counsel, I think Marlene is in the background communicating with like most of you or your paralegals on filing amended exhibits right now. I think our system's still down and still struggling.

So you might want to confirm things are
actually getting filed right now. Marlene is responding to most of them saying like, "Hey, our system is down. Please check again in a while and try again." Not sure what the issue is, but FYI.

THE HEARING EXAMINER: All right. Let me -- so, Mr. Holliday, let me start with tab four. These are your spacing unit and working interests here. So let me just confirm that the parties listed in yellow are the parties you are pooling; is that correct?

MR. HOLLIDAY: That is correct. Yes, sir. And that -- there's a statement to that effect in Mr. Coshow's affidavit. But yes, we've identified the parties to be pooled in yellow.

THE HEARING EXAMINER: Okay. As I've said to everybody, it's sort of helpful if you kind of just type that on the exhibit.

MR. HOLLIDAY: I'll do that.
THE HEARING EXAMINER: All right. So you have five parties you're pooling here, two working interest and three unleased mineral interest; is that correct?

MR. HOLLIDAY: That's correct.
THE HEARING EXAMINER: So with
notice -- notice was mailed out on the 13th. System
is really -- it's like -- we have a new Adobe Acrobat software and it's really slow. Your newspaper publication is March 24 th; is that correct?

MR. HOLLIDAY: I believe so. I'd have to go find it. One second. Where's the affidavit -- yes, sir. It was on the 24 th.

THE HEARING EXAMINER: Okay. So you have to publish ten business days prior to the hearing. So I think you missed it by one day.

MR. HOLLIDAY: Okay.
THE HEARING EXAMINER: So what we do in that situation is we simply continue the case to the next docket, which would be April $20 t h$, and just see if anybody jumps in during that time frame --

MR. HOLLIDAY: Okay. Yes, sir. Very
happy to do that. We -- there were no unlocatable parties, but $I ' m$ very happy to -- we can certainly continue on in this case. Just wanted to note that. We did that out of an abundance of caution, but happy to refile that -- or excuse me -- re-notice by publication and continue to the next docket.

THE HEARING EXAMINER: Okay. Well, you're correct. All your -- all the interests have received, and you do have green cards. So we probably don't have to do that then because it is just sort of

| 1 | belt and suspenders there. Okay. I don't think I |
| :---: | :---: |
| 2 | have any other questions. Mr. Garcia, Mr. Harrison, |
| 3 | anything pop up? |
| 4 | THE TECHNICAL EXAMINER HARRISON: Not |
| 5 | for me. Thank you. |
| 6 | THE TECHNICAL EXAMINER GARCIA: Me |
| 7 | neither. |
| 8 | THE HEARING EXAMINER: All right. |
| 9 | MR. HOLLIDAY: All right. |
| 10 | THE HEARING EXAMINER: Are there any |
| 11 | other interested persons then for case 23424? Hearing |
| 12 | none -- Mr. Holliday, I'm sorry. Did I interrupt you? |
| 13 | MR. HOLLIDAY: No. |
| 14 | THE HEARING EXAMINER: Hearing none, |
| 15 | the -- all the exhibits in case 23424 will be admitted |
| 16 | into the record and case 23424 will be taken under |
| 17 | advisement. Thank you. |
| 18 | (Silverback Operating II, LLC Exhibit |
| 19 | A, Exhibit B, and Exhibit $C$ were |
| 20 | received into evidence.) |
| 21 | MR. HOLLIDAY: Thank you. |
| 22 | THE HEARING EXAMINER: Okay. We are on |
| 23 | items 42 and 43, cases 23417, 23418. MRC Permian |
| 24 | Company. |
| 25 | MS. VANCE: Good morning, Mr. Hearing |
|  | Page 126 |

Examiner, Mr. Garcia, Mr. Harrison. Paula Vance for the Santa Fe office of Holland \& Hart on behalf of the applicant, MRC Permian Company.

THE HEARING EXAMINER: Are there any other interested persons for cases 23417, 23418? Hearing none, MRC may proceed. And I know we're goofing around about well names. We won't ask you who Marlan Downey is.

MS. VANCE: Thank you. All right. I will go ahead and get started then. MRC is seeking approval to pool all uncommitted interests in the Bone Spring Formation. And I'll walk through this when we get to the sub-exhibits, but there are two pools.

The first pool is the Rock Lake Bone Spring south and that pool code is 52769 and that pool is associated with Sections 4 and 9 acreage. And then we also have the pool WC-025G-06S233516m, Middle Bone Spring, and that pool code is 98246 and that's associated with Section 16 acreage.

And this is all underlying -- in both of these cases, all the acreages underline -- or is in Township 23 South, Range 35 East, Lea County, New Mexico.

In case number 23417 , MRC seeks to pool a standard 400-acre, more or less, overlapping
horizontal well spacing unit comprised of the west half of the southeast quarter of Section 4 and the west half of the east half of Sections 9 and 16 and initially dedicate the spacing unit to the proposed Marlan Downey State Com 123H well.

And then in case number 23418, MRC seeks to pool a standard 400-acre, more or less, overlapping horizontal well spacing unit comprised of the east half of the southeast quarter of Section 4 and the east half of the east half of Sections 9 and 16 and initially dedicate the spacing unit to the Marlan Downey State Com 124 H well.

In these cases, we have included a copy of the applications, provided the compulsory pooling checklist as well as the affidavits of landman David Johns and geologist Blake Herber, both of whom have previously testified before the Division and their credentials have been accepted as a matter of record. And Mr. Johns' affidavit is Exhibit C, which includes Sub-Exhibits C1, an overlap diagram. And you will see there that the two proposed spacing units wholly overlap the two wells, both of which are operated by Matador. And the overlapping well -- the existing well in case 23417 that one's the Marlan Downey State 04 and 09-23S-35EAR and that's the 113H.

And the overlap -- the existing well in spacing unit is -- that is associated with case number 23418 is the Marlan Downey State 04 and 09-23S-35EAR 114 H well. There's a diagram there.

And then moving on from that, we've got Sub-Exhibit $C 2$, which is the overlapping notice and that's for the first case, which is case number 23417, and that's the Marlan Downey State Com 123H. And then Sub-Exhibit C3 is a similar, but for -- it's another overlapping notice, this one for the 124 H .

And then Sub-Exhibit C4 are our C102s. And as I mentioned when I opened, we have two different pools and you will see that we have two different C102s, both outlining the acreage associated with the pool that's indicated in the C 102 for both of the wells.

Then we have Exhibit C5, which is the land tract map, C 6 , which is our ownership schedule that lists out our uncommitted working interest owners and over-rights that we are seeking to pool.

This is followed by C7, a sample well proposal letter and AFEs. And if you look at Exhibit C7, I believe it is page 45. We did provide a amended or additional follow-up on the notice to correct a footage, and that was timely mailed -- or sent out
timely.
And then Exhibit C8 is the chronology
of contacts.
This is followed by Mr. Blake's
affidavit, which is Exhibit D, and includes
Sub-Exhibits D1, a locator map, D2, a SEPC structure map, and D3, a structural cross-section. In these cases, Mr. Blake did not observe any faulting, pinch-outs or other geologic impediments to the horizontal drilling of these wells.

And then lastly is Exhibit E, which is
a self-affirmed statement of notice with sample letters that were timely mailed on March 17, 2023, and Exhibit $F$, an affidavit of notice of publication, which was timely published on March 21, 2023.

And unless there are any questions, I would ask that all exhibits and sub-exhibits be admitted into the record and that case numbers 23417 and 23418 be taken under advisement at this time by the Division. And $I$ stand by for any questions.
(MRC Permian Company Exhibit A through
Exhibit $F$ were marked for
identification.)
THE HEARING EXAMINER: Thank you.
Mr. Garcia?

THE TECHNICAL EXAMINER GARCIA: No questions.

THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: None either. Thank you.

THE HEARING EXAMINER: Why do I have to ask all the questions? All right. So really having a hard time with our PDFs here today. Your C102s -- there they are. C102s are all for 639 acres, not for 1,279. They have their own little spacing units, all of them.

MS. VANCE: I guess I'm confused by your question, or the statement. Can you clarify, Mr. Hearing Examiner?

THE HEARING EXAMINER: I'm looking at your C102s. Like I'm looking at page 69 out of 136.

MS. VANCE: Sixty-nine?
THE HEARING EXAMINER: Am $I$ on the right case here?

MS. VANCE: I don't think so because my C102s are on page 28 --

THE HEARING EXAMINER: I'm not. I'm sorry. I'm on the wrong case. I'm sorry. I'm fine. Thank you.

MS. VANCE: Okay.

THE HEARING EXAMINER: Jumped ahead to the next case already. All right. Are there any other interested persons then for cases 23417, 23418? Hearing none, the exhibits will be admitted into the record and these cases will be taken under advisement. Thank you.
(MRC Permian Company Exhibit A through Exhibit $F$ were received into evidence.)

MS. VANCE: Thank you.
THE HEARING EXAMINER: With that, we are on cases 23428, 23429. OXY USA.

MR. RANKIN: Morning, Mr. Examiner. Adam Rankin appearing on behalf of the applicant in these cases, OXY.

THE HEARING EXAMINER: Thank you. COG Operating. Anyone else interested --

MS. RYAN: Still here. COG Operating. Beth Ryan. Thank you.

THE HEARING EXAMINER: Thank you, Ms. Ryan. All right. Does COG have any objection to this case going forward by affidavit?

MS. RYAN: No, we don't.
THE HEARING EXAMINER: Thank you. All
right. Are there any other interested persons for case 23428 or 23429 ? Hearing none, OXY may proceed.

MR. RANKIN: Thank you, Mr. Examiner. In these two cases, OXY is requesting approval of two 1,279.16-acre, more or less, non-standard horizontal well spacing units. One would be in the Wolf Camp Formation. That's case 23428. The other will be in the Bone Spring Formation. That is in case 23429.

In both cases, OXY is also seeking to pool all uncommitted interests in those two spacing units -- non-standard spacing units.

Now, in each case, OXY is proposing to dedicate certain wells in the Wolf Camp. In case 23428, it's seeking to dedicate six initial wells identified as the Gold Log 4_9 Fed Com wells. And in the Bone Spring case, 23429, OXY is seeking to dedicate four initial wells, the -- also the Gold Log 4_9 wells.

On Tuesday, Mr. Examiner, we filed exhibit packets, Exhibits A through G, and served them on COG and Concho. Exhibit $A$ is a -- are the application checklists identifying each of the elements necessary for pooling. Exhibit B is a copy of the application in each case.

Exhibit C is the self-affirmed statement of OXY's landman in these cases, Ms. Amber Delach [ph], and she has previously testified before
the Commission -- rather the Division.
In her affidavit, she reviews the requests to approve two separate non-standard spacing units in each case and identifies the proposed initial wells which will be dedicated to each of the spacing units.

Attached to her affidavit or
self-affirmed statement is Exhibit C1, which are the two proposed communitization agreements that will be submitted to the BLM.

And as a matter of record, she explains why OXY is seeking non-standard spacing units in these cases and that is to allow the BLM to approve these communitization agreements, which will allow OXY to reduce the surface impact, have fewer trains, resulting in lower costs and also eliminating or reducing potential emissions.

So she explains the need for the non-standard spacing units as well in her affidavit and the need for the approvals to proceed with the BLM.

Exhibit C 2 attached to her self-affirmed statement are the C102s for each of these wells. And, Mr. Examiner, I know you noted that -- just $I$ think in another case that the outline
in these Cl02s show less than the full proposed dedicated acreage that it proposed for these non-standard units.

And so if required, Mr. Examiner, we can submit updated ones. But at the time when these are filed with the Division, we will make sure that they show the full dedicated acreage proposed for these non-standard units.

Exhibit C -- also, Mr. Examiner, in the C102s, it identifies the pool and pool code which are -- will be assigned for each of these wells within the formations.

Exhibit $C 3$ is a land plat identifying the different tracts within the acreage as well as the parties within and their interests within each one of those tracts. Attached to that page is a list of the parties and their interests on a tract basis and on a unit-wide basis.

Parties that OXY is seeking to pool, and this is the -- these are the same interests for the Wolf Camp and Bone Spring, are identified in yellow and you'll note at the bottom of the page where we kept -- we provide a recapitulation of the interests on a unit-wide basis.

```
OXY identifies all the parties it's
```

seeking to pool and clarifies that there's -- parties in yellow are the parties that are subject to the pooling.

In addition to the working interests that they're seeking to pool, OXY is also pooling some record title only parties, parties that hold a bare record title interest in order to perfect the communitization requirements from -- with the BLM. Those parties are listed in yellow as well.

C4 is a sample well proposal letter that was sent out to the parties and the working interests along with the estimated costs for each of the wells.

Exhibit C5 is a copy of the chronology of contacts and OXY's efforts to locate and identify each of the parties that it's seeking to pool.

Exhibit C 6 is a notice plat that shows the offsetting tracts as affected parties who were required to receive notice of the non-standard unit under the Division's rules and those parties are identified in the surrounding tracts under C 6.

Exhibit D is a self-affirmed statement of Mr. Daniel Burnett. He's a geologist who's previously testified. And he provides, in his self-affirmed statement, analysis of the geology and
the target intervals for each of the two applications. And the -- his analysis that horizontal well development is appropriate and will prevent waste and will protect correlative rights.

Attached to his affidavits are D1
through D4. These are the standard maps showing the general location map, his line of cross-section for A-to-A prime when he -- for his cross-section exhibits as well as structure maps identifying the top of the Bone Spring and Wolf Camp Formations for each case.

And then also his cross sections
showing the target intervals for each of the proposed wells within the spacing unit showing that the geology that they are targeting is consistent across the entire spacing unit.

Exhibit E is the affidavit of Ms. Chaka
[ph]. She is a facilities engineer. She's not previously testified before the Division. Therefore, her credentials, education and work experience are attached to her self-affirmed statement as Exhibit E1.

Mr. Examiner, I would ask, based on her qualifications, that she be recognized before the Division as an expert in -- as a facilities engineering expert.

THE HEARING EXAMINER: Hearing no
objection, so recognized.
MR. RANKIN: Thank you, Mr. Examiner.
Attached to her self-affirmed statement in which she explains the necessity or the benefit of having a non-standard spacing unit for these two cases are her analyzes in E 2 and E 3 .

Exhibit E2 reviews the additional pads and facilities that would be required if OXY were to have to produce these spacing units on standard spacing.

You'll see that the total cost savings here is nearly $\$ 10$ million if $O X Y$ is allowed to produce these wells on non-standard spacing units. That will allow these wells -- make these wells more economic and allow them to produce for a longer period of time.

In addition, you'll see that because of the reduction in facilities, there is an expected emission savings of approximately 3,200 tons of the -- of Co2 equivalent each year.

Her next exhibit, E3, shows the savings on the surface impacts, another benefit of having a reduced facilities as a result of the non-standard spacing unit.

Exhibit F, Mr. Examiner, is the
affidavit of publication that we provided. Some of the noticed parties indicate that they did not receive or that they were being returned. So therefore, we are relying on the notice of publications in these cases.

The notice of publication for the first case, the Wolf Camp case, correctly identifies the formation and you'll see it was published timely and identifies each of the parties that required notice in this case.

The next one, Mr. Examiner, for the Bone Spring case, case number -- get the number correct -- 23429 incorrectly identifies the Wolf Camp Formation in the notice. And so one thing I'll just say, Mr. Examiner, is that there is no ownership depth severance here.

All the parties are the same whether they're in the Bone Spring or Wolf Camp and so while we are relying on notice of publication here, everybody that has an interest would be notified of what OXY is seeking to do here.

So we're -- we can discuss this after I'm done with my presentation, Mr. Examiner, but I don't believe that additional notice by publication is required because there is no ownership depth severance
and if there were any interests that were at issue, they would be beyond notice that OXY is seeking to pool this acreage.

Exhibit $G$ is the affidavit of -- affidavit prepared by myself and our office reflecting that we provided notice to each of the parties we're -- OXY is seeking to pool as well as those in the offsetting tracts affected by the application.

Mr. Examiner, for some reason when we filed our exhibits on Tuesday, the notice letter and the mail -- certified mail tracking information was left off or was not included in the filing. So therefore, this morning, we have or are in the process of attempting to file a replacement Exhibit for that Exhibit -- that final Exhibit G.

That will include the notice letter that we sent out on March 17 th as well as the status of the mailings to each of those parties that I described previously. And so once -- I did mail that to you and to COG. So you should be able to see it and see that we did provide notice, as indicated in my affidavit.

With that, Mr. Examiner, unless there are any questions from Ms. Ryan or yourselves, we ask
that these cases be taken under advisement.
(OXY USA Inc. Exhibit A through Exhibit
G were marked for identification.)
THE HEARING EXAMINER: Thank you.
MS. RYAN: No questions.
THE HEARING EXAMINER: Thank you for answering my question before $I$ even asked it. Thank you. Mr. Garcia?

THE TECHNICAL EXAMINER GARCIA: I have one question, and this is truly just me learning here, Mr. Rankin. Has BLM ever talked about why they won't allow facilities to condense without an NSB? I mean, I know we've done this a few times and I'm just curious for myself learning.

MR. RANKIN: Yeah. So the issue is that the way the -- and this is true as well really for the state land office -- is that communitization -- the purpose of a communitization agreement is to authorize the allocation of production within an approved spacing unit.

And because of that, the BLM will not authorize or agree to a CA unless it is subject to state spacing -- a state spacing order or approval. And so unless and until the operator obtains a spacing order authorizing that acreage to be in a spacing
unit, the BLM will not approve a CA for that acreage.
THE TECHNICAL EXAMINER GARCIA: Okay.
MR. RANKIN: And so it's a little bit of a cart before the horse issue where we need to first obtain spacing authorization from the Division before the BLM will approve CA.

THE TECHNICAL EXAMINER GARCIA: Yeah. So they basically see it as two standard spacing units, two separate facilities, two production allocations.

MR. RANKIN: And the problem here
Mr. Garcia is that because of the arrangement of leases, the BLM will not approve commingling; okay? Surface coming between the two different spacing units or the -- even within the Bone Spring or Wolf Camp because of the different lease rates and inclusion of other state and fee leases.

And so even if we could do separate spacing, we wouldn't be able to commingle between the different leases and the pools with the feds. And so we would have to have, $I$ think in this case, four different spacing units without surface comingling.

THE TECHNICAL EXAMINER GARCIA: Okay.
I appreciate it. Again, that was just self-learning. So I have no further questions, Mr. Brancard.

THE HEARING EXAMINER: Thank you. Oh, okay. So I do see that we have an email with your exhibit -- replacement exhibit, Mr. Rankin. I don't know -- Mr. Garcia, Mr. Harrison, have you seen that?

THE TECHNICAL EXAMINER HARRISON: I have not.

THE TECHNICAL EXAMINER GARCIA: Same.
I have not.
MR. RANKIN: I'm sorry. I didn't have Mr. Harrison's email. But $I$ do believe I did send it to Mr. Garcia, but $I$ know he's been busy paying attention to all the cases he's involved in.

THE TECHNICAL EXAMINER HARRISON: I do have it. If you give me just a minute to take a look at it real quick.

THE HEARING EXAMINER: Okay.
THE TECHNICAL EXAMINER GARCIA: You're talking about OXY replacement Exhibit $F$ ?

MR. RANKIN: Yeah. And just to be clear, it's going to be replaced when Exhibit G -- when we file.

THE TECHNICAL EXAMINER GARCIA: Okay.
Yeah. I just read the name of the file.
THE HEARING EXAMINER: All right. So the list on this exhibit then is all of your notice;
is that correct? For both the compulsory pooling and the non-standard spacing unit?

MR. RANKIN: Yes. And you'll see, Mr. Examiner, we did also provide notice to the BLM and state land office because state and federal lands are included.

THE HEARING EXAMINER: I did see that. Great.

MR. RANKIN: Happy dance.
THE HEARING EXAMINER: And my quick check is that you seem to have covered people who need to be covered here. Mr. Garcia, Mr. Harrison any --

THE TECHNICAL EXAMINER HARRISON: A quick --

THE TECHNICAL EXAMINER GARCIA: I don't have further questions, but I'll pass to Mr. Harrison.

THE TECHNICAL EXAMINER HARRISON: Thank you. Mr. Rankin, $I$ have a quick question, and kind of in line with what we've seen earlier today.

You've got a lot going on in this -- these exhibits, but page 88 when we start discussing pooled parties -- and my question is a pooled party 128 Holdings is listed in tract one, but it appears that they're not highlighted in yellow as being pooled in the next page. I'm just trying to
make sure that they are or are not being pooled. MR. RANKIN: Thank you for that question, Mr . Harrison. As it turns out, on the very minute we were preparing to file these exhibits on Tuesday, 128 Holdings LLC submitted a signed JOA and election to participate.

And so we were able to revise the list of pooled parties and so we reflect, as is correct, that they are not being pooled. They're not highlighted in yellow and that's the reason for that. THE TECHNICAL EXAMINER HARRISON: Thank you. And $I$ believe with both cases that that is the case, one for the Bone Springs and one for the Wolf Camp; is that correct?

MR. RANKIN: That's true, Mr. Harrison. The ownership interest is identical between the formations.

THE TECHNICAL EXAMINER HARRISON: Thank you. No further questions.

THE HEARING EXAMINER: Okay. So, Mr. Rankin, are you saying that -- I'm confused here. You submitted a replacement Exhibit F , but it's actually Exhibit $G$; is that what you're saying?

MR. RANKIN: Yeah. I think -- it's -- the very last exhibit of our exhibit
packet is the affidavit of notice and $I$ believe as filed, it's missing the notice letter and the sort of -- and the proof of certified mailing.

And so we circulated, by email, what's
titled as, "Replacement Exhibit F," but it really should be "G." So I apologize for the confusion. So when we file this, and we will reserve it, it should be -- it'll be labeled as Exhibit $G$ because that's the correct replacement exhibit.

THE HEARING EXAMINER: Okay. Good. Because Exhibit $F$ is the affidavits of publication.

MR. RANKIN: Correct.
THE HEARING EXAMINER: Okay. Yeah, I need -- yeah. Your affidavit has them backwards in the regular letter. So make sure your letter -- your letter refers to the exhibit that has the affidavits as Exhibit G. So anyway, if you could just clarify that so that you're replacing something that you should be replacing.

MR. RANKIN: Yeah. Yeah. Yeah. I understand. I think normally, we have it the other way around. So we --

THE HEARING EXAMINER: Right. Right -MR. RANKIN: Yeah. I'll make sure that when we --

THE HEARING EXAMINER: It just got into the filing out of order there.

MR. RANKIN: Yeah. Yeah.
THE HEARING EXAMINER: All right. So any other further questions on case -- so let me just work it through here. We have a non-standard spacing unit for both formations; is that correct?

MR. RANKIN: Correct, Mr. Examiner.
THE HEARING EXAMINER: 'Cause this is not Purple Sage Wolf Camp. This is just regular Wolf Camp?

MR. RANKIN: This is just a regular Wolf Camp.

THE HEARING EXAMINER: Okay. But it looks like -- in looking at your C102s -- that how the wells are placed, arguably you have two standard spacing units that you're combining into one.

MR. RANKIN: For each formation. That could be the case. Correct.

THE HEARING EXAMINER: Yes. That you have wells that could be considered proximity wells to make those half section wide and then you combine them into one section wide.

MR. RANKIN: I believe that's true. I didn't confirm the offset -- that they're within 330,
within the quarter-quarter sections, but I believe that's probably true in this case.

THE HEARING EXAMINER: Okay. I'm doing the math in my head, which is always dangerous. So just kind of wanted to confirm that. That just makes it a little easier for us 'cause we have -- obviously, as I mentioned earlier, we have a history of approving two standards as a non-standard with the justification that you're providing.

So -- all right. Any other questions or concerns on these cases, 23428, 23429? Exhibits are admitted into the record and cases taken under advisement and hopefully the exhibit numbers will be clarified when you get that supplemental file.
(OXY USA Inc. Exhibit A through Exhibit
G were received into evidence.)
MR. RANKIN: Will do.
THE HEARING EXAMINER: Thank you.
Forgot to ask, Mr. Garcia. Do you care about those C102s?

THE TECHNICAL EXAMINER GARCIA: I thought Adam made the statement when he was presenting about -- that they would be updated. I may have heard wrong.

THE HEARING EXAMINER: Yes, he did say
that.
THE TECHNICAL EXAMINER GARCIA: Okay.
So sorry. I guess I assumed.
THE HEARING EXAMINER: Okay. Thank
you. All right. Dana, are we doing okay?
THE REPORTER: Yes, doing fine.
THE HEARING EXAMINER: All right.
Well, why don't we take about a ten-minute break here? Let's get back by 11:20; all right?
(Off the record.)
THE HEARING EXAMINER: It's the OCD hearings of April 6, 2023. We are on item 46, case 23405. Mewbourne Oil Company.

MR. BRUCE: Mr. Examiner, Jim Bruce here on behalf of Mewbourne.

THE HEARING EXAMINER: Thank you. Are there any other entries of appearance for case 23405? Hearing none, Mewbourne may proceed.

MR. BRUCE: Mr. Examiner, as a preliminary matter, all these succeeding Mewbourne cases, as you well know, have some issues. What I would like to do on each of them is present the case and at the very end, so it's just in one place in the transcript, mention the items that $I$ think $I$ need to cure.

In this particular case, Mewbourne seeks to amend order number R-22069 to extend the drilling commencement deadlines. That order pooled the west half/east half of Section 11 and the west half/southeast quarter of Section 2, 18 South, 32 East in Lea County to drill one of Mewbourne's Dragonstone Bone Spring wells.

The order was entered March 9, 2022, and paragraph 19 of the order requires the operator to commence the well within one year and paragraph 20 allows the operator to request an extension of this order.

Exhibit -- that -- Exhibit 1 contains the application and proposed notice. Exhibit 2 is the affidavit of Brad Dunn, the landman in this matter. Mewbourne has force pooled other wells in this area. They've drilled some of them.

And the basic reason for the extension request is to -- and Mewbourne does plan on drilling this well later this year, but they want to look at the production results from offsetting wells and, if necessary, adjust their drilling program -- completion program accordingly.

Exhibit 3 is my affidavit of notice with the notice letter and Exhibit 4 is the affidavit
of publication. First, I would note that obviously March 9th has passed. I would note that -- also note that this application was filed before March 9th.

And in fact before then, I had filed case 23380 requesting the same relief requested herein, but $I$ made a mistake in the application and I put the wrong order number down and so I refiled it as this case with the proper order number and then $I$ dismissed the prior case, which was originally set to be heard four weeks ago.

So I think this application was timely filed and I'd request that it be approved. The only other thing $I$ would note is that for all of my cases, I felt good about them all except when I couldn't get the pooling spreadsheet and the pooling checklists prepared.

I was kind of disappointed because in the dozen and a half or so cases $I$ am presenting today, on each and every one of them, the newspaper publication was timely published, and I don't think that's happened to me for a couple of years.

I mean, obviously on certain cases. For once in my life, I got them all published by the pooling -- by the publication deadline.

So with that, I would move the
admission of the Exhibits 1 through 4, but then $I$ will -- probably after this afternoon, $I$ will file a subsequent notice with an amended affidavit of mailing with the green cards and a notice spreadsheet, and I think that is all that $I$ need to do in this particular matter. Thank you.
(Mewbourne Oil Company Exhibit 1
through Exhibit 4 were marked for identification.)

THE HEARING EXAMINER: Thank you.
Mr. Garcia, questions?
THE TECHNICAL EXAMINER GARCIA: No questions.

THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: No questions. Thank you.

THE HEARING EXAMINER: Okay. So yes, I
think that the issue then is the notice documentation in this case?

MR. BRUCE: Yes.
THE HEARING EXAMINER: So it's the spreadsheet and whatever green cards you have to go along with it. Other than that, $I$ don't have any questions in this case.

So with that, are there any other
interested persons in case 23405? Hearing none, case -- the exhibits in case 23405 will be admitted into the record and the case will be taken under advisement, subject to submittal of the notice spreadsheet and --
(Mewbourne Oil Company Exhibit 1
through Exhibit 4 were received into evidence.)

MR. BRUCE: Yeah. And all of the remaining cases will be continued April $20 t h$.

THE HEARING EXAMINER: Right. This one we won't continue because you didn't need a checklist for this case.

MR. BRUCE: Yeah. Correct. Yes. Thank you.

THE HEARING EXAMINER: All right. With that, we have cases 23406 , 23407. These are items 47 and 48 on our list. Mewbourne Oil Company. Mr. Bruce, are these cases combined or are you doing -- taking them one at a time?

MR. BRUCE: No, they're not combined.
THE HEARING EXAMINER: Okay.
MR. BRUCE: Pretty similar. Just 23406, if you please.

THE HEARING EXAMINER: All right. Then
we'll just do 23406. Are there any other entries of appearance for case 23406? Hearing none, please proceed, Mewbourne.

MR. BRUCE: Mr. Examiner, in this case, Mewbourne seeks to force pool the south half of Section 23 and the south half of Section 24, 22 South, 27 East, Eddy County for purposes of drilling two so-called "Tommy Boy" Wolf Camp wells. Obviously somebody at Mewbourne is fan of -- oh, what's his name from Saturday Night Live?

Exhibit 1 is the pooling application and notice. Exhibit 2 is the statement of Brad Dunn, the landman. The affidavit contains the usual information. It requests overhead rates of 8,800 per month, contains the land plat, C102s, the tracts and all the lease -- which leases are committed, which interest owners are committed.

If you'll -- Attachment B to Exhibit 2,
if you look at that, the only person being pooled is Joy Magby, M-A-G-B-Y. Additional parties were notified of this application, but Mewbourne has come to terms with all of them. So they're seeking to force pool one interest owner in this pooling application.

> The application also contains the well
proposal, the AFEs, which are stated to be fair and reasonable.

Exhibit 3 is the affidavit of Tyler
Hill, the geologist, and his usual data, a structure map showing the well unit and the proposed wells. It also -- you can also see all of the offset Wolf Camp wells and they are all laydown wells, which is the reason that Mewbourne is asking for a laydown well unit. Contains all the other information.

Exhibit 4 is my affidavit of notice. As you can see, I notified four people, but at this point, only Joy Magby is being pooled and my certified notice spreadsheet will still reflect that.

And then the affidavit -- Exhibit 5 is the affidavit of publication as to all of the interest owners.

So in this case, I do owe you the certified notice spreadsheet and the affidavit, the -- my notice affidavit, updated to include the white slips and green cards. But with that, I would request that Exhibits 1 through 5 be admitted into the record and -- oh, and of course I owe you a pooling checklist.

And the C 102 did not contain the pool name and pool code. I will put that in the
spreadsheet, but $I$ will also put it -- I will also file corrected Cl02s. This is a Purple Sage Wolf Camp well -- or wells and -- but $I$ will also submit to you corrected C102s. And I think that's about it.
(Mewbourne Oil Company Exhibit 1
through Exhibit 5 were marked for identification.)

THE HEARING EXAMINER: Thank you.
Mr. Garcia, questions?
THE TECHNICAL EXAMINER GARCIA: No questions.

THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: No questions at this time. Thank you.

THE HEARING EXAMINER: Thank you.
I -- Mr. Bruce, I think you answered the question I -- main question $I$ have lacking a checklist, which is the pool is Purple Sage. So these are 320-acre tracts; is that correct?

MR. BRUCE: Correct.
THE HEARING EXAMINER: So this is a standard horizontal spacing unit then?

MR. BRUCE: That is correct.
THE HEARING EXAMINER: Okay. Thank
you. Are there any other interested persons
then -- oh, also, I think I -- somebody internally said that this well is within a few miles of the Carlsbad Brine Well Remediation Project. So -MR. BRUCE: Oh, okay.

THE HEARING EXAMINER: It's not as close as the one that $I$ discussed earlier today, but just so your folks are aware when they go for the APD --

MR. BRUCE: Yeah. And I think -- let me check. 2227. Yeah. That is -- I think the next case is the same thing. I will contact my client and make sure they're in contact with the OCD district office in Artesia regarding that.

THE HEARING EXAMINER: Thank you. All right. Any other interested persons for case 23406 ? Hearing none, the exhibits will be admitted into the record. The case is continued to April 20th. And we need spreadsheet, we need checklists, C102s, all that.
(Mewbourne Oil Company Exhibit 1
through Exhibit 5 were received into evidence.)

MR. BRUCE: Yes.
THE HEARING EXAMINER: And no need to file the continuance. We'll just put it on the docket.

MR. BRUCE: Thank you.
THE HEARING EXAMINER: All right. With that, I will call case 23407. Mewbourne Oil Company.

MR. BRUCE: Jim Bruce for Mewbourne.
THE HEARING EXAMINER: And I believe we had an entry from Mar Oil \& Gas?

MR. PADILLA: Mar Oil \& Gas,
Mr. Examiner. I'm Earnest L. Padilla, for the record, on behalf of Mar Oil \& Gas. And we're appearing -- we don't have an objection to an affidavit hearing, but we're appearing to preserve appellate rights.

THE HEARING EXAMINER: Thank you. All right. Any other interested persons then for case 23407? All right. So, Mr. Bruce, I had this as a question mark because $I$ don't think we got a pre-hearing statement in this case.

MR. BRUCE: Well, my file shows I have one, and $I$ hope to hell I filed it, but I'm looking at it right now. If you -- well, if you just want to continue this one to the 20 th, $I$ will refile that or file it, the application of publication, and I will get the other documents that are needed on this matter for that case. Maybe that's the easiest way to go.

THE HEARING EXAMINER: Yeah. Maybe we'll just do that. Why don't we just continue this
to April $20 t h$ then and you can -- proper documents filed then.

MR. BRUCE: Okay. Yeah. Well, I don't know what happened, but $I$ do have one that $I$ will immediately file after this hearing.

THE HEARING EXAMINER: Thank you. All right. So we're now on item 49, case 23409.

Mewbourne Oil Company.
MR. BRUCE: Mr. Examiner, Jim Bruce for
Mewbourne.
THE HEARING EXAMINER: Any other interested persons for case 23409? Hearing none, Mewbourne may proceed.

MR. BRUCE: Mr. Examiner, in this case, Mewbourne Oil Company seeks to pool uncommitted mineral interest owners into a non-standard spacing and proration unit comprised of the west half of Section 15 and the west half of Section 10, 23 South, 34 East in Lea County.

The pooling is limited from the top of the First Bone Spring to the base of the Second Bone Spring and the reason for that is there are existing Third Bone Spring wells in these -- in this acreage drilled by Mewbourne that are 1-mile laterals.

So rather than mess everything up,
they're only seeking to pool the first and Second Bone Spring for proposed wells.

And Exhibit 1 is the application and proposed OCD notice. Exhibit 2 is the affidavit of the landman requesting the relief. There are a number of parties to be pooled. The affidavit contains the usual information. They're asking for $\$ 8,000$ per month drilling well, 800 per month producing well. And the NSP is requested because they would like to -- as $I$ will subsequently mention, there's a lot of wells out here. The -- Mewbourne is trying to minimize surface use, as Mr. Rankin said in a previous case, to reduce surface use and reduce cost to surface facilities and make the wells more economic.

The affidavit contains the usual land plats, C102s, a list of the tracts involved and the interest owners in each tract, a listing of the interest owners and their percentage interests with asterisks for those denoting being pooled, a summary of communications with the parties being pooled, the proposal letters, the AFEs, which are stated to be fair and reasonable.

And Attachment E is -- to Exhibit 2 shows the non-standard unit with the offsetting
operators. All of the offsetting tracts are operated. So there's only operators who are notified and I will get to that in a minute, sir.

Exhibit 3 is the affidavit of the geologist, Jordan Carroll. Contains the usual structure map as Attachment A and if you look at that, you'll see that this area is very heavily developed and all of the well units are standup units. So that is the favored orientation.

Contains the horizontal drilling plans, my affidavit of publication -- I mean, excuse me -- affidavit of certified mailing and in this mailing, we notified the uncommitted mineral interest owners.

Also, there were record title owners notified so that the time agreement will be approved by the federal government. And then there -- lists the offset operators who were given notice. And then Exhibit 5 is the affidavit of publication.

First of all, in this matter, again I owe you revised C102s with the pool and pool code. I owe you pooling checklists and I -- in this matter, all of the acreage out here is federal and then consistent with what you stated previously, I should have notified the BLM.

And I think what $I$ would request in this matter is first of all, I'd ask that Exhibits 1 through 5 be admitted into the record and I will supplement the list with a pooling checklist, revised affidavit of mailing, the corrected C102s.

But since I have to give notice to the BLM, rather than continue to April $20 t h$, $I$ would like to file a motion for continuance of this matter for the May 4th hearing so that the BLM is given notice of the requested non-standard unit.
(Mewbourne Oil Company Exhibit 1
through Exhibit 5 were marked for
identification.)
THE HEARING EXAMINER: Thank you. Is -- am I interrupting or are you still going, Mr. Bruce?

MR. BRUCE: Nope. I'm through. Thank you.

THE HEARING EXAMINER: Thank you. Mr. Garcia, any questions?

THE TECHNICAL EXAMINER GARCIA: I believe that captured it all. Just to clarify, 102s also include the acreage. I think you said pool name and pool code.

MR. BRUCE: Yes. Yes. Yeah. On all
of the C102s, I will put the acreage, or if I can get my client to revise them and save me that headache, I will do that. Otherwise, we will put in the acreage. THE TECHNICAL EXAMINER GARCIA: Sounds good. No more questions.

THE HEARING EXAMINER: Thank you.
Mr. Harrison, any --
THE TECHNICAL EXAMINER HARRISON: That
was my request as well. So thank you.
THE HEARING EXAMINER: Thank you. All
right. Okay. So for case 23409 , the exhibits will be admitted into the record.

We need a checklist, the notice documentation, including the spreadsheet, and -- which includes notice documentation for the non-standard spacing unit and you need to provide notice to the BLM, revised C102s. And then this case will be continued to March 4th -- sorry. May 4th.
(Mewbourne Oil Company Exhibit 1
through Exhibit 5 were received into evidence.)

MR. BRUCE: Thank you. May. Thought I was in a time warp here, but --

THE HEARING EXAMINER: Yeah. All
right. Now we are on case -- item number 50. This
will be cases 23419, 23420. Mewbourne Oil Company. MR. BRUCE: Jim Bruce on behalf of Mewbourne.

THE HEARING EXAMINER: And we have a entry of appearance from Devon Energy Production and WP X.

MR. SAVAGE: Darin Savage with Abadie \&
Schill on behalf of Devon Energy Production Company and WPX Energy Permian.

THE HEARING EXAMINER: Thank you. Any other interested persons for cases 23419, 23420? Hearing none, does Devon object to this case going forward by affidavit?

MR. SAVAGE: Neither Devon nor WPX objects. Thank you.

THE HEARING EXAMINER: Thank you. So with that, Mewbourne may proceed.

MR. BRUCE: Mr. Examiner, I'll just go briefly through it. In the first case, Mewbourne seeks to force pool the Bone Spring Formation underlying the north half/south half of Section 2 and the north half/south half of Section 1 of 19 South, 28 East.

In the second matter, they seek to force pool the south half/south half of Section 2 and
the south half/south half of Section 1 in the same township and range. And they are proposing, in each well unit, to propose -- to drill a Second Bone Spring well and a third Born Spring well designated the "Rio Grande" wells.

Exhibit 1 in each packet is the application and the proposed notice. Exhibit 2 in each packet is the affidavit of Mitch Robb, the landman, stating what he seeks, the pooling, seeking rates of -- overhead rates of 8,000 and 800 a month for the well. The usual attachments are there, land plats, C102s, the tract map showing the leases involved and the working interest owners involved and their percentages. The -- let me see here.

There is the part of Attachment $B$ to Exhibit 2 showing the listed interest owners and there are four interest owners being pooled designated on this exhibit: Devon, XTO and EOG Resources. There is a summary of contacts with these parties, proposal letters and the AFEs, which are stated to be fair and reasonable.

Exhibit 3 is the affidavit of the geologist, Charles Crosby. Contains the usual information, structure map, which is Attachment A to Exhibit 3, which shows the structure itself.

But you'll also notice that all of the wells in this area are -- all of the Bone Spring wells in this area are laydown wells and so that is the preferred orientation and structure -- I mean, excuse me -- cross-sections and there are separate structure maps and cross-sections for each of the two Bone Spring zones that these wells will test.

And then there's the horizontal growing plans, my affidavit of notice to the parties being pooled. There is also one record title interest owner being pooled so that Mewbourne can get the communitization agreement approved. And then the -- Exhibit 5 is the affidavit of publication. And so consistent with these other cases, I need to submit revised C102s with the pool, pool code, acreage. I will submit the revised affidavit of certified notice with the green cards and the certified notice spreadsheet and then the pooling checklist and with the request that this matter be continued for two weeks. Thank you.

And I would move the admission of
Exhibits 1 through 5. Hello? Have I been cut off?
(Mewbourne Oil Company Exhibit 1 through Exhibit 5 were marked for identification.)
(Off the record.)
THE HEARING EXAMINER: It is April 6, 2023, in the afternoon. These are the hearings of the New Mexico Oil Conservation Division continued. Last we heard, we were on case 23419 and we had entries of appearance from Mewbourne Oil Company and Devon Energy, WPX.

MR. BRUCE: Yes. And consolidated with 23420 .

THE HEARING EXAMINER: Yes. Correct. So maybe you should just start over on 23419, 23420, Mr. Bruce.

MR. BRUCE: Yeah. I was going to start from the top. Thank you.

Mr. Examiner, in case 419, Mewbourne seeks to pool the Bone Spring Formation underlying the north half/south half of Section 2 and north half/south half of Section 1, 19 South, 28 East. In the 420 case, they seek to force pool the south half/south half of Section 2 and the south half/south half of Section 1, same township and range.

These are for the purposes of drilling -- in each well unit, there will be -- these are the Rio Grande wells. In each well unit, there will be a Second Bone Spring well and a Third Bone

Spring well pool.
Exhibit 1 is the -- in each case is the application and the proposed notice. Exhibit 2 is the landman of the -- or the affidavit of the landman, Mitch Robb, who describes what they're seeking and that they -- it contains the usual information. The overhead rates are 8,000 per month and 800 per month.

Attachment A are the C102s for the wells. And again, $I$ will run through these and $I$ will mention the issues that $I$ need to correct at the end. And then Attachment $B$ contains all the information on the tracts involved, the leases involved and the parties being pooled, who are Devon, XTO and EOG, and it gives their percentage interests in these matters. Then there is the attachment showing the communications with the parties being pooled and a sample copy of the proposal letter and then the AFEs involved. Exhibit -- again, it's all the usual matters.

Exhibit 3 is the affidavit of the geologist, Charles Crosby, and for each zone, he has attached a structure map and a cross-section, in other words, for the First Bone Spring -- I mean, excuse me -- Second Bone Spring and the Third Bone Spring.

And if you look at the
attachment -- attachments to his affidavit, the structure maps, you can see that all of the wells being built out here are laydown units, which is why Mewbourne is doing the laydown units. The operators have decided that is the proper orientation for maximum production. Attachment $E$ is the horizontal drilling plans.

Exhibit 4 is my statement of notice and again, there are four parties being pooled -- four working owner interest groups being pooled. There is also a record title owner being pooled, Occidental Permian. So that a time agreement will be approved by the BLM.

Exhibit 5 is my affidavit of publication, which once again is timely published.

And so I owe you supplements. Number one, I will revise the C102s to show the pools, pools code -- the pool code, the acreage or the acreage amount and $I$ will submit a new affidavit of -- an amended affidavit of notice with the green cards and a certified notice spreadsheet and then finally, I will submit the pooling checklist.

And with that $I$ would move the
admission of Exhibits 1 through 5 and ask that the matter be continued for two weeks so that the record
may be supplemented, and that's it. Thank you.
THE HEARING EXAMINER: Thank you.
Let's first go to Devon, WPX, any questions?
MR. SAVAGE: No questions. Thank you.
THE HEARING EXAMINER: Thank you.
Mr. Garcia, questions? Mr. Garcia? Mr. Harrison, are you there? Okay. All right. I don't have any questions. But I think, Mr. Bruce, you summarized what it is you need to provide for the next hearing date.

At this point, we will admit your exhibits into the record as they are and the case will be continued to the April $20 t h$ docket to provide the additional notice and other requirements. Thank you.
(Mewbourne Oil Company Exhibit 1
through Exhibit 5 were received into
evidence.)
MR. BRUCE: Thank you.
THE HEARING EXAMINER: So with that, we are on items, I believe, 52, 53, 54, cases -- or maybe just 52 and 53. Find out.

MR. BRUCE: Correct. Correct.
THE HEARING EXAMINER: Okay. Case -- so 23445 and 23446. Mewbourne Oil Company.

MR. BRUCE: Mr. Examiner, Jim Bruce
here for Mewbourne.
THE HEARING EXAMINER: Thank you. Are there any other interested parties for cases 23445, 23446? Hearing none, Mewbourne may proceed.

MR. BRUCE: Okay, Mr. Examiner. These cases are related in the fact that they involve the same lands, although the first case is for pooling the Wolf Camp formation and the second case is for pooling the Bone Spring Formation.

And in 445, Mewbourne seeks to force pool the northwest quarter of Section 14 and the west half of Section 11, 26 South, 29 East. This is in the Purple Sage Wolf Camp gas pool and in this case, Mewbourne is also seeking unorthodox well locations. Of course, the Purple Sage Wolf Camp has 330 feet setbacks from the -- for the first and last take points. In this case, Mewbourne is seeking 100-foot setbacks.

Exhibit 1 contains the application and proposed ad. Exhibit 2 is the landman's affidavit containing, as $I$ said, the usual information, including the overhead rates of 8,000 and 800 per month. Contains -- is somebody trying to speak? Okay. I heard something.

THE HEARING EXAMINER: I don't think
so.
MR. BRUCE: Attachment $A$ is the land plats showing the tracts involved and then there's the C102s, which I neglected to include the pools and pool codes.

But Attachment $B$ shows the tracts and the interest owners being pooled. The only two interest owners being pooled at this time are Carbon Tex [ph] Energy and Nu Energy -- Nu, N-U, Energy Oil and Gas, Inc. A very small percentage interest is being pooled.

The -- well, I should say there are several additional parties, EXCO Resources, E-X-C-O, Kauffman Company and RKC.

There's Attachment $C$ which shows how they attempted to contact these parties. Mewbourne has never heard back from them and as a matter of fact, Carbon Tex [ph] and Nu Energy have been unlocatable for years. That is noted in the landman's affidavit.

I have attempted to notify them probably six, eight times over the past couple of years and everything comes back.

Also contained are the affidavits -- excuse me -- the AFEs, which are stated
to be fair and reasonable.
Attachment $E$ is for purposes of the unorthodox locations that shows that the only offset operator is Mewbourne as to each of these cases. And I would also -- with respect to the unorthodox locations, $I$ would refer the examiners to Exhibit 3A, which is the structure map of the geologist, which shows that this area has been heavily developed.

And I think I need to probably supplement -- confirm, for purposes of the April $20 t h$ hearing, the offsets. But as -- if you look at Exhibit 3A, you can see there are operators in all offsetting well units at to the unorthodox locations and $I$ will verify that information.

Exhibit 3, as $I$ said, is the landman's affidavit. Contains the usual structure map, cross-section and if you look at Exhibit 3A again, you'll notice that all of the wells drilled in this area as to the Wolf Came are standup well units. So that is the preferred orientation.

Attachment $C$ shows all of the offsetting wells and the production from the wells. And then Attachment $D$ contains the long-form horizontal planning reports because $I$ did not have any one-page summary and it's beyond me to comprehend
these long-term reports -- or long-form reports, but nonetheless, they are there.

Exhibit 4 is my notice letter and again, $I$ will supplement that. Besides the two parties being pooled, Nu Energy and Carbon Tex [ph], the other interest owners are record title owners who are simply being pooled so that the BLM will approve a communitization agreement for this unit.

And then COG was the only other offset operator and notice was given to them. Exhibit 5 is my affidavit of publication to all of the interest owners.

And so with respect to this case, once again, $I$ have to supplement the affidavit of mailing. I will do a notice spreadsheet and then $I$ will submit the pooling checklist that I've already completed and then $I$ will verify the -- that we did notify all proper parties as to the unorthodox well locations.

And with that, I would move the admissions of Exhibits 1 through 5 and the ask that the matter be continued to April 20 th to submit the supplemental information on this case.

And then I will move on to 23446 and in this case, applicant requests to pool the same acreage, the southwest quarter of Section 14 , the west
half of Section 11, same township and range for drilling Bone -- Second Bone Spring wells.

They also seek a non-standard spacing and proration unit for the same purposes stated by in the previous applications.

And as -- this is shown or testified to in the landman's affidavit that it is to minimize surface facilities -- it's to minimize surface damage, limit the amount of surface facilities that need to be built and therefore make these wells more economic.

Exhibit 1 is the application and proposed notice. Exhibit 2 is the affidavit of the landman, similar to the second one. Same overhead rates, 8,000 and 800 a month. Attachment A shows the land involved. There's the AFEs -- excuse me -- the C102s.

Attachment $B$ to the landman's affidavit shows the tracts involved, the leases involved and the working interest owners and the record title owners being pooled. I suppose one thing is that some of these working interest owners have committed their interests to the well, but have not ratified a common agreement and that's why they're being pooled.

Attachment $C$ shows the summary of communications, contains the original proposal letter.

Again, if you look at the proposal letter and a few sheets after that, you can see that Mewbourne also attempted to contact these parties by certified mail and they were non-deliverable.

Attachment $D$ is the AFEs for the well which are stated to me fair and reasonable.

The landman -- excuse me -- the
geologist's affidavit is attached as Exhibit 3. Contains the usual structure map and again, if you look at the structure map, every Bone Spring well drilled out of this area-wide plat is a standup unit. It's the favored orientation out here.

There's also a gross isotonic and a cross-section showing the zones being penetrated and produced and it's of uniform thickness across the wellbores.

And they also contain a Second Bone Spring production map showing that this should be a profitable area out there. And then again, containing the standard planning -- horizontal planning zones, planning reports for the well.

Exhibit 4 is my affidavit of notice, and all of the parties were sent certified notice. And then Exhibit 5 is the affidavit of publication, again, timely published.

And what $I$ owe the Division, as in all of these cases, is supplemental affidavit of mailing, the notice spreadsheet, the pooling checklist and then I will supplement the $C 102 s$ to show the pool and the pool code.

And with that, $I$ move the admission of Exhibits 1 through 5 and ask that the matter be continued for two weeks.
(Mewbourne Oil Company Exhibit 1
through Exhibit 5 were marked for
identification.)
THE HEARING EXAMINER: Thank you.
Let's try Mr. Garcia. Can we hear you now?
THE TECHNICAL EXAMINER GARCIA: No questions. Can you hear me?

THE HEARING EXAMINER: We heard you.
Mr. Harrison, any questions?
THE TECHNICAL EXAMINER HARRISON: No questions.

THE HEARING EXAMINER: Thank you. All right. Mr. Bruce, let me get this straight. So 23445 is compulsory pooling and a non-standard location?

MR. BRUCE: Yes.
THE HEARING EXAMINER: And 23446 is compulsory pooling and a non-standard unit?

MR. BRUCE: That is correct.
THE HEARING EXAMINER: All right. So, Mr. Garcia, $I$ think we were basically telling folks to go the administrative route on non-standard locations; is that correct?

THE TECHNICAL EXAMINER GARCIA:
Correct. And I guess that's kind of what I thought they were talking about, was that they were going to go the -- get an NSL through the admin process.

MR. BRUCE: And, Mr. Examiner, if that's what you want me to do -- and I understand that because I've got a couple more I need to file for prior pooling cases. I will do whatever the Division requests.

THE TECHNICAL EXAMINER GARCIA: But typically, they're separated. One, 'cause they're kind of different notice in nature and NSL's specific to a well where compulsory pooling is technically multi-wells. And so I think paragraph 18, too, of the standard order says, like, hey, if this well is to be unorthodox, you need to go get one in accordance with this rule.

MR. BRUCE: Okay.
THE TECHNICAL EXAMINER GARCIA: I just butchered that wording, but something to those legal
wordings.
MR. BRUCE: And I'm willing to do that. No problem.

THE HEARING EXAMINER: Okay. All
right. And then so for the non-standard spacing unit, remember that you need to -- if it's federal or state land, you need to notify BLM state land office.

MR. BRUCE: Yes. And I will do that and if $I$ need to further continue the matter, $I$ will do so. But at this point, I'd ask for they be set on the $4 / 20$ docket just so $I$ can submit the other supplemental information and $I$ will take care of any notification deficit.

THE HEARING EXAMINER: Thank you. All right. Are there any other persons with comments on cases 23445, 23446? Hearing none, the exhibits will be admitted into the record.

The case will be continued to April 20 and as we discussed, to provide checklists, spreadsheets, notice information, revised C102 and confirmation that the correct notice has been done for a non-standard spacing unit.
(Mewbourne Oil Company Exhibit 1
through Exhibit 5 were received into evidence.)

MR. BRUCE: Thank you.
THE HEARING EXAMINER: Thank you. With that, we are on item 54, case 23447. Mewbourne Oil Company.

MR. BRUCE: Mr. Examiner, Jim Bruce here for Mewbourne.

THE HEARING EXAMINER: Thank you. Is there anyone else here for case 23447? Hearing none, Mewbourne may proceed.

MR. BRUCE: Mr. Examiner, in this case, Mewbourne seeks to pool the south half of Section 21 and the south half of Section 20 of 20 South, 27 east in Eddy County for purposes of drilling at -- in the first instance, two Third Bone Spring wells. They're called the "Wine Mixer" wells.

And in the application right off the top, I requested a non-standard spacing and proration unit and after I filed the application, my client sent to me what is marked Exhibit 7.

It's not notified on my -- it's not stated on my exhibit list, but Exhibit 7 is an administrative non-standard spacing unit approval from the Division from last summer so that the portion of the application requesting the NSP may be dismissed.

Exhibit 1 is the application and
proposed notice. Exhibit 2 is the landman's affidavit, again, containing the usual information, land plats showing the wells and the well location, the C102s. Attachment $B$ contains plats showing the tracts involved, the working interest owners involved, the leases involved and the parties being pooled. Attachment $C$ shows the summary of communications with the parties together with a sample proposal letter and showing -- it also contains the certified mail timelines for mailer receipts for the proposal letters to all of these parties. Attachment D is the -- contains the AFEs for the proposed wells and so $I$ think all of the information is there.

Exhibit 3, the affidavit Charles Cosby, the geologist. Attachment $A$ is the structure map showing the direction of the structural inclination. And again, this area isn't as heavily developed as certain other areas, but all of the existing Bone Spring wells in this area are laydown well units. So that is the preferred orientation.

Attachment $B$ is the cross-section showing the zone of interest that's continuous across the well unit and is out relatively uniform thickness and of course, each quarter-quarter section will produce more or less equally to production. And
attachment $C$ is the horizontal drilling plans for the wells.

Exhibit 4 is my affidavit of notice and
Exhibit 5 is the affidavit of publication, timely published. Kind of proud of that, Mr. Examiner. It doesn't happen often.

But again, what $I$ must provide to you
is the updated affidavit of mailing with the green cards, the certified notice spreadsheet, a pooling checklist and I will also do the -- redo the C102s so that they show the pool and the pool code.

But with that, I would move the admission of Exhibits 1 through 5 and ask that the matter be continued for two weeks.
(Mewbourne Oil Company Exhibit 1
through Exhibit 5 were marked for
identification.)
THE HEARING EXAMINER: Thank you.
Mr. Garcia, questions?
THE TECHNICAL EXAMINER GARCIA: No questions.

THE HEARING EXAMINER: Mr. Harrison, questions?

THE TECHNICAL EXAMINER HARRISON: No questions. Thank you.

THE HEARING EXAMINER: So, Mr. Bruce, in your application, but rarely referenced anywhere else in your exhibits, is the request to vacate two prior compulsory pooling orders, which, when I look them up, what you now have is a 640-acre unit, but we -- before, we approved two 320s?

MR. BRUCE: Oh, yes -- yes.
And -- that is correct and thank you for bringing that up. I -- yes. Orders R-22296 and 22297 gave approval for two 320-acre well units.

And as you've seen, especially over the last few months, people are asking for non-standard units now because the BLM has gotten a little touchy about approving lease commingling or well comingling. And so the easiest way to go about this is to get a non-standard spacing unit approval from the Division.

So even though those orders are still valid, if this application is approved, those prior orders can be vacated because they will no longer be needed.

THE HEARING EXAMINER: Thank you. Just wanted to get that on the record. I think that's all the questions $I$ had. Are there any other interested persons with comments on case 23447?

Hearing none, the exhibits in 23447
will be admitted into the record. The case will be continued until April $20 t h$ for the provision of the checklist, spreadsheet, C102, other matters that counsel has mentioned here.
(Mewbourne Oil Company Exhibit 1 through Exhibit 5 were received into evidence.)

MR. BRUCE: Thank you.
THE HEARING EXAMINER: All right. I believe we're going to shift gears here, and let's start with something that should be easy, case 22782 . This is item 55 on our checklist. Whiptail Midstream.

MR. SAVAGE: Good morning, Mr. Hearing Examiner. Good morning, technical examiners. Darin Savage with Abadie \& Schill on behalf of Whiptail Midstream.

THE HEARING EXAMINER: Thank you. We have an entry of appearance from the Oil Conservation Division?

MR. TREMAINE: Yes, Mr. Hearing
Examiner. This is Jesse Tremaine for the OCD. Thank you.

THE HEARING EXAMINER: Thank you. Are there any other interested persons in case 22782? Hearing none, I believe we have a motion to dismiss;
is that correct, counsel?
MR. SAVAGE: That is correct. Whiptail
informed me yesterday they decided to go into a different direction. In lieu of adjudication, they want to work directly with the OCD's technical group to address matters involving the release. And so I -- yesterday, I filed the motion. I apologize for the last minute, but $I$ appreciate the consideration.

THE HEARING EXAMINER: Thank you. I assume there's no objection from the Division?

MR. TREMAINE: None. We believe we have a path forward. Thank you.

THE HEARING EXAMINER: Thank you. All right. Well, we will go ahead and approve the dismissal, although I'm disappointed that $I$ no longer get to say, "Whiptail Midstream."

MR. SAVAGE: You could go ahead and say
that, Mr. Examiner, whenever you feel like it. All right. Thank you. Appreciate it.

THE HEARING EXAMINER: All right. With
that, we are on item 56, case 23438. Hilcorp Energy Company.

MR. RANKIN: Morning,
Mr. Examiner -- or afternoon. Adam Rankin appearing on behalf of the applicant, Hilcorp, in this case.

THE HEARING EXAMINER: Thank you. Are there any other interested persons for case 23428? Okay. Hearing none, Hilcorp to explain what it is requesting today.

MR. RANKIN: Mr. Examiner, Hilcorp had filed an application for downhole commingling to add a third formation or pool to a well that was currently dedicated to two other existing pools under an existing order.

At the time it filed its application for administrative approval to add this third zone, it was unaware of the existence of this order, $R-10385$, which authorized downhole commingling in two zones.

Upon submission of the administrative application, the Division notified Hilcorp that there was this existing order in place that authorized the downhole commingling of the two existing pools.

And therefore, Hilcorp would either have to amend the order -- hearing order to add an additional pool or dismiss from the order the two -- the authorization to downhole commingle those two pools so the Division could proceed administratively to approve all three zones.

And so in light of the Division's information on that, it's far easier, frankly, to go
forward administratively and so -- with downhole comingling.

And so we have asked, through this application, for the Division to dismiss from order R-10385 only the authority to downhole comingle those two pools which are outlined in the application and in the self-affirmed statement of Hilcorp's landman, Mr. Robert Carlson.

THE HEARING EXAMINER: Thank you.
Mr. Garcia, questions?
THE TECHNICAL EXAMINER GARCIA: I guess just to make sure $I$ understand, you want to dismiss an old order, downhole commingling portion of it, so you can chase downhole comingling administratively and it's easier to amend and all that stuff in the future?

MR. RANKIN: That's correct. And just to be clear as well, what Hilcorp is asking here is that the Division not dismiss from the -- that order the authority until it approves the administrative application. I guess the point being that $I$ don't want there and Hilcorp doesn't want there to be a gap in authority to downhole comingle.

And so we're just asking that there would not be a gap of any kind.

THE TECHNICAL EXAMINER GARCIA: Yeah.

MR. RANKIN: So that they can proceed administratively and then once they have the approval, then this case can be -- those two pools can be dismissed from downhole comingling under the order. THE TECHNICAL EXAMINER GARCIA: That was my next question is -- assuming you don't want a gap. So is the admin permit already filed?

MR. RANKIN: I've been trying to confirm that. I -- number one, that the Division has what it needs and that it has been updated with the Division. So I'm not 100 percent sure. I believe it has been updated. I just don't know yet. I want to make sure that's the case and, Mr. Garcia, I will follow up as soon as $I$ can after this hearing.

I believe the folks at Hilcorp have been in touch with Dean and want to make sure that he has everything he needs to approve the administrative portion of the application.

THE TECHNICAL EXAMINER GARCIA: I think that's all my questions. And I mean, we'll keep that in mind, too, when writing orders that -- to take into consideration.

THE HEARING EXAMINER: Thank you.
Mr. Harrison, any questions?
THE TECHNICAL EXAMINER HARRISON: No
questions. Thank you.
THE HEARING EXAMINER: Thank you.
Okay. So just -- let's clarify that. I'm looking at the order, $R-10385$, and so what I'm assuming you want deleted then is the first ordering paragraph?

MR. RANKIN: I believe that's the only paragraph that matters.

THE HEARING EXAMINER: Do you -- as you scroll down, do you have any clue whether ordering paragraph four has been complied with?

MR. RANKIN: Has been what?
THE HEARING EXAMINER: Complied with?
MR. RANKIN: No. I have -- I don't know the status of that requirement.

THE HEARING EXAMINER: Well, I mean, the order's 28 years old. So it either happened or it didn't --

MR. RANKIN: Yeah. I would think so. Yeah.

THE HEARING EXAMINER: All right. That sounds fine then. So I think what we'll do is we can draft an order that will delete that one paragraph and we'll direct Hilcorp to any further downhole commingling should be applied for administratively; right? Because we want to avoid paragraph six here;
right? Which is the retaining jurisdiction.
MR. RANKIN: Well, I suppose that's right, although I think that's -- I'll leave it to you, Mr. Brancard, to decide what you want to retain.

THE HEARING EXAMINER: Well, I mean, we just want to make it clear that just because we're eliminating that provision, that if you want comingling authority, you get it administratively. MR. RANKIN: Right. Right.

THE HEARING EXAMINER: Because that's really the whole goal here.

MR. RANKIN: That is the goal.
THE HEARING EXAMINER: All right. Once more, any interested parties in case 23438? Hearing none, the exhibits will be admitted into the record and 23438 will be taken under advisement.

With that, we are on item 57, case 23393. Armstrong Energy Corporation.

MS. MCLEAN: Good afternoon,
Mr. Examiner. Jackie McLean on behalf of Armstrong.
THE HEARING EXAMINER: Thank you. Are there any other interested persons for case 23393? Hearing none, Armstrong to proceed.

MS. MCLEAN: Thank you, Mr. Examiner. And we do have available today the engineer and
geologist who provided testimony should you have any questions. I'm going to start off with just a summary of our application and what we have submitted to the Division and then I'll send it to you for questions.

In case number 23393, Armstrong applies for an order instituting special pool rules and regulations for the Reeves Devonian pool, code 51930.

And applicant Armstrong is the operator of the Rocky Raccoon \#1 located in a vertical well unit comprised of the northwest quarter/southeast corner of Section 24 , Township 18 South, Range 35 East in Lea County, New Mexico.

And the pool currently has a depth bracket allowable of 410 barrels of oil per day for a standard 40 -acre spacing and proration unit pursuant to rule 19.15.20.12(A) NMAC. The well was completed and is capable of producing above the pool's oil allowable.

Because of that, Armstrong is requesting that the Division establish special pool rules and regulations for the pool which provide for a special depth bracket allowable of 800 barrels of oil per day for a standard 40 -acre oil well unit and that the special rules and regulations for the pool be made effective retroactive the date of first production
from the well.
Increasing the depth bracket allowable will allow Armstrong to produce the pool in the most effective manner and therefore serves the interests of conservation, the protective and correlative rights and the prevention of waste. Increasing the allowable will not waste reservoir energy, harm the reservoir or reduce recovery of oil and gas reserves.

> In addition, the well is already producing and there are sufficient facilities on site to allow for transportation, casing gas transportation, water disposal, processing and marketing and Armstrong also has takeaway contracts for produced water and gas in this unit.

We have submitted engineering, geology and notice exhibits for case number 23393. I'll quickly first address Exhibit C, which is the notice testimony, and this shows that all the parties entitled to notice did timely receive our notice letter and we also published timely on February 8, 2023 with the Hobbs News-Sun.

Exhibit A is from Kyle Alpers. He is the vice president of engineering at Armstrong.

And the exhibits introduce through Mr. Alpers' testimony include Exhibit A1, the
application and proposed notice of hearing, Exhibit A2, which is a C102 for the Rocky Raccoon \#1 well, Exhibit A3, production data from the well, Exhibit A4, which is historical production of the Reeves Devonian pool, and Exhibit A5, Rocky Raccoon reservoir data. Mr. Alpers' testimony shows that Armstrong is the operator of Rocky Raccoon \#1 located in the spacing unit that is producing well -- oil from the Reeves Devonian pool, code 51940, that the initial well in the pool was completed in 1962 with a top perforation at 12,120 feet subsurface.

And for that reason, the pool has that depth bracket allowable of 410 barrels of oil per day for a standard 40 -acre spacing and proration unit.

And as shown on Exhibit A3, the production data, the well is capable of producing above the pool's oil allowable.

Exhibit A5 is reservoir data obtained for the last 60 days of production and shows that the requested depth bracket allowable of 800 barrels of -- per day can be produced without damage to the reservoir and without causing surface or underground waste.

Exhibit $B$ is geology testimony from
Kelsey Garner. She is the geology exploration manager
at Armstrong Energy.
And the exhibits introduce through
Ms. Garner's testimony include Exhibit B1, a regional locator map for the project area, Exhibit B2, a Devonian structure map, Exhibit B3, a structure map of the Devonian formation, and Exhibit B4, which is a stratigraphic cross-section penetrating through the target interval.

Ms. Garner's testimony shows that the well is capable of producing above the pool's depth bracket allowable and that the proposed increase in allowable of 800 barrels of oil per day will not result in decreased ultimate recovery or harm the reservoir.

And now, Mr. Examiner, myself and Mr. Alpers and Ms. Garner are available for questions if you have any.
(Armstrong Energy Corporation Exhibit A, Exhibit B, and Exhibit $C$ were marked for identification.)

THE HEARING EXAMINER: Thank you. Start with Mr. Garcia.

THE TECHNICAL EXAMINER GARCIA: I think
I have a question or -- so I'm trying to orientate myself. Exhibit B1, would a witness need to answer
that question? And do we need to swear them in, I guess?

Basically, my question is all these wells that are green on here, are they also going to be requesting the allowable for themselves or are you requesting it for the pool wide?

I guess kind of -- I guess trying to understand the increase to 800 barrels. Is it just for this well that you're requesting it or is it pool wide that you're requesting it?

MS. MCLEAN: I believe the rule is for pool wide.

THE TECHNICAL EXAMINER GARCIA: Okay. I might have some other questions with that one then.

MS. MCLEAN: But if you would like, Ms. Garner can answer your specific questions about the geology exhibit.

THE TECHNICAL EXAMINER GARCIA: I think that answers it for now. Notice questions I might leave to Bill. But my second question is more of a statement. I see that there is well logs in here, in your exhibits for this well in question, and the Rocky Raccoon \#1 has some well logs in it.

Can you submit those to the Division?
'Cause we do not have copies of these and our rules
require us to receive any logs that have been ran. And you can submit that through the OCD permitting site such as like drilling, sundries, et cetera through the log submission.

It does not have to come through the hearing portal because the hearing portal's not set up to take full-blown logs. But I think that's actually all my questions, though, depending on Mr. Bill's questions.

THE HEARING EXAMINER: Thank you. Mr. Harrison, any questions?

THE TECHNICAL EXAMINER HARRISON:
Ms. McLean, you mentioned that there are facilities already in place to handle an increase in production?

MS. MCLEAN: Yes. That is correct. It's currently producing above that 410 barrels of oil per day and they have been able to handle that.

THE TECHNICAL EXAMINER HARRISON: Thank you. That's all I had.

THE HEARING EXAMINER: Thank you. Okay. So I -- Mr. Garcia sort of started down the line of questioning that $I$ wanted to go on, which is you're seeking approval for increased depth bracket allowable for this entire pool. Looks to be four sections here? I'm looking at that Exhibit B1.

MS. MCLEAN: Yes.
THE HEARING EXAMINER: And at this point, it looks like there are five wells producing from the pool.

MS. MCLEAN: I believe that's correct from the key.

THE HEARING EXAMINER: So this change would apply to all of those wells?

MS. MCLEAN: Yes, Mr. Examiner.
THE HEARING EXAMINER: Did you try to find out whether there is a division order establishing this pool?

MS. MCLEAN: I did not personally. We can ask the engineer, I think. And then also just to clarify, there -- of those five wells that are noted on Exhibit B1, three of them are actually plugged.

THE HEARING EXAMINER: Okay. It says,
"Produced," as in past tense. So yes --
MS. MCLEAN: Yes. Yes. Produced, that they -- those are -- have been or are currently producing from --

THE HEARING EXAMINER: So what is the other well that is currently producing then?

MS. MCLEAN: I think let's ask Ms. Garner, I believe. Ms. Garner, are you there?

MS. GARNER: Yes. Can you hear me?
MS. MCLEAN: Yes. Thank you.
THE HEARING EXAMINER: Ms. Garner, just please identify your name and spell it, please, for the record.

MS. GARNER: Kelsey Garner, K-E-L-S-E-Y
$\mathrm{G}-\mathrm{A}-\mathrm{R}-\mathrm{N}-\mathrm{E}-\mathrm{R}$.
THE HEARING EXAMINER: And could you just raise your right hand? WHEREUPON,

KELSEY GARNER, 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: Thank you.
THE WITNESS: The three wells to the north, as she mentioned, are plugged. They haven't produced for a very long time. And then the other one, the Rock Steady that's mentioned on there, is our other well.

THE HEARING EXAMINER: Okay. And so is it Armstrong intent that this depth bracket allowable would also apply to the Rock Steady well?

MR. ALPERS: I believe that was
our -- that was our intent. That was our
understanding of -- of applying for special pool rules.

THE HEARING EXAMINER: Thank you. And,
Mr. Alpers, if you could just again say your name, spell it, and then I'll swear you in; okay?

MR. ALPERS: Yes, sir. Kyle Alpers,
K-Y-L-E A-L-P-E-R-S. I'm vice president of engineering for Armstrong Energy.

THE HEARING EXAMINER: Okay. Your right hand, please?

WHEREUPON,
KYLE ALPERS,
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: Thank you.
Okay. So the intent is for this depth bracket allowable to apply to both of those wells?

THE WITNESS: Yes. I believe that was our understanding.

THE HEARING EXAMINER: And presumably to any future wells within this four section area?

THE WITNESS: Correct.
THE HEARING EXAMINER: Okay. All
right. So who did -- Ms. McLean, who did you provide
notice to for this?
MS. MCLEAN: Under the rule, it specifies exactly who needs to receive notice and that -- I'm going -- I'm trying to refresh my memory. But on page -- sorry -- the Exhibit C2, it shows who we sent notice to and everyone received the notice and we got the green card back.

THE HEARING EXAMINER: All right. I just want to make sure. So if you're looking to create or revise a special pool order, there's a specific notice provision; is that what you based it on?

MS. MCLEAN: Yes. Yes, it is,
Mr. Examiner. And I'm just -- I wanted to give it to you here, but -- sorry. It's just -- lots of screens happening at the same time. So when -- my email decides to be frozen.

THE HEARING EXAMINER: So I'm looking at 19.15.4.12A4.

MS. MCLEAN: 19.15.4?
THE HEARING EXAMINER: .12A4.
MS. MCLEAN: Thank you. Yes. Okay.
So yeah. The notice requirements for specific adjudication. And then we have -- now I'm the one having -- okay. If the applicant seeks to adopt,
revoke or amend special pool orders, et cetera, that's contemplated under here and that is what we complied with. That's --

THE HEARING EXAMINER: So it's Division designated operators?

MS. MCLEAN: Yes. To -- yes. And we found all of the -- and I believe -- and Armstrong can correct me if I'm wrong, but I believe that we decided in this case to even notice the operators of the plugged wells just out of an excess of caution.

THE HEARING EXAMINER: Okay.
MS. MCLEAN: Because I -- these cases seems to be fairly rare recently because there's not as many vertical wells. So we wanted to -- it's our understanding that more notice is better and that's what we wanted to do in this case.

THE HEARING EXAMINER: So I'm thinking this is the second type of notice, which is operators in the pool, operators of well within the same formation as the pool and within 1 mile of the pool's outer boundary that have not been assigned to another pool. Whew.

MS. MCLEAN: Yes. Yes. And we did -- they -- and I think that Mr. Alpers can testify to the efforts that they did to locate all of the
parties that we needed to pool because we did want to make sure we accomplished the notice that's required under the rule.

THE HEARING EXAMINER: All right. So then -- and I think your testimony covers this, but the other rule that applies to this is 19.15.20?

MS. MCLEAN: . 12
THE HEARING EXAMINER: . 12. Depth bracket allowables, Subsection $F$, which talks about assigning a greater than regular depth bracket allowable?

MS. MCLEAN: Yes, Mr. Examiner.
THE HEARING EXAMINER: So that is what your geologic testimony is designed to cover, those issues?

MS. MCLEAN: Geologic and engineering testimony.

THE HEARING EXAMINER: Engineering. Thank you. About the reservoir and not damaging the reservoir?

MS. MCLEAN: Yes, Mr. Examiner. I believe we had all of those marks in both the geology and engineering testimony.

THE HEARING EXAMINER: All right. Okay. So I guess then the only other issue is

| 1 | for -- if you can perhaps research it and we'll try to |
| :---: | :---: |
| 2 | research it -- to determine whether there's an |
| 3 | existing order establishing this pool that we would |
| 4 | need to amend. I'll try to find some grey beard |
| 5 | around the Department other than myself might know |
| 6 | where those are. |
| 7 | THE TECHNICAL EXAMINER GARCIA: I have |
| 8 | a starting point if you'd like -- |
| 9 | THE HEARING EXAMINER: Yes. |
| 10 | THE TECHNICAL EXAMINER GARCIA: Order |
| 11 | R-1652. |
| 12 | MS. MCLEAN: Did you say, "R-652"? |
| 13 | THE TECHNICAL EXAMINER GARCIA: 1652. |
| 14 | MS. MCLEAN: Oh, 16. Okay. |
| 15 | THE TECHNICAL EXAMINER GARCIA: Based |
| 16 | off how low of a number it is, 1 would hope it's |
| 17 | imaged correctly. |
| 18 | THE HEARING EXAMINER: Yeah, that's an |
| 19 | old one. And that's for this pool, Mr. Garcia? |
| 20 | THE TECHNICAL EXAMINER GARCIA: I could |
| 21 | tell you. Search for the pool code pops up in that |
| 22 | order. I can't tell you if it's actually in it. |
| 23 | THE HEARING EXAMINER: Oh, okay. |
| 24 | THE TECHNICAL EXAMINER GARCIA: If that |
| 25 | helps at all. |
|  | Page 203 |

Paul Baca Professional Court Reporters
A Veritext Company
505.843.9241
www.veritext.com

| 1 | MS. MCLEAN: This -- I just pulled it |
| :---: | :---: |
| 2 | up. |
| 3 | THE HEARING EXAMINER: It is from 1960. |
| 4 | MS. MCLEAN: It's a new pool at the |
| 5 | Eckel [ph] San Andres pool. |
| 6 | THE TECHNICAL EXAMINER GARCIA: Yeah. |
| 7 | I would have to -- control word searching -- |
| 8 | MS. MCLEAN: But because there was -- |
| 9 | THE HEARING EXAMINER: If you look at |
| 10 | paragraph five, it refers to the Reeves Devonian. |
| 11 | MS. MCLEAN: Right. Yes. It was |
| 12 | discovered by John M. Kelly in 1960. So it looks like |
| 13 | this order created a lot of new pools. |
| 14 | THE TECHNICAL EXAMINER GARCIA: Tends |
| 15 | to be the case. |
| 16 | MS. MCLEAN: Yeah. And it's -- yes. |
| 17 | This -- it looks like this is the order. Thank you, |
| 18 | Mr. Garcia, for finding this so quickly. |
| 19 | THE TECHNICAL EXAMINER GARCIA: Just |
| 20 | don't tell nobody. |
| 21 | THE HEARING EXAMINER: Great. Thank |
| 22 | you. All right. Mr. Garcia, Mr. Harrison, any other |
| 23 | questions? |
| 24 | THE TECHNICAL EXAMINER GARCIA: No |
| 25 | questions at this time. |
|  | Page 204 |

THE TECHNICAL EXAMINER HARRISON: No. Thank you.

THE HEARING EXAMINER: Okay. Are there any other interested persons then in case 23393? Hearing none, the exhibits will be taken into the record and the case 23393 will be taken under advisement, but $I$ can't guarantee you that we won't maybe have a question or two as we start drafting an order.
(Armstrong Energy Corporation Exhibit
A, Exhibit B, and Exhibit $C$ were received into evidence.)

MS. MCLEAN: Thank you, Mr. Examiner.
THE HEARING EXAMINER: Thank you.
THE WITNESS: Thank you.
THE HEARING EXAMINER: All right. See if we can make it through the last case here. Item 58, case 23427. OXY USA.

MR. RANKIN: Mr. Examiner, Adam Rankin appearing on behalf of the applicant in this case, OXY USA Incorporated.

THE HEARING EXAMINER: Mr. Rankin, you're doing the lion's share today. Any other parties for case 23427? Hearing none, OXY USA to proceed.

MR. RANKIN: Good morning,
Mr. Examiner. May it please the Division this morning, OXY is requesting an order to amend the existing order number $R-22101$ to do the following: Number one, to expand the approved closed loop gas capture injection project area; to authorize -- number two, to authorize 11 additional injection wells for intermittent temporary produced gas injection within the Bone Spring Formation; number three, to increase the authorized maximum allowable surface injection pressure from 1,200 to $1,300 \mathrm{PSI}$ and to extend the pilot project and all the deadlines under existing order $R-22101$ for an additional two years from issuance of an order in this case.

All the other terms, provisions, conditions under the existing order $\mathrm{R}-22101$ are proposed to remain unchanged.

And because the proposed expansion that we're talking about here and requesting would include the project area and wells already authorized for injection in existing order $R-22102$, OXY seeks therefore to dismiss order $R-22102$ once this product area has been amended to include that acreage and wells.

Mr. Examiner, we have two witnesses
today which we would like to present through live testimony. We -- I think it's just easier and faster and more efficient to do it that way. We have one witness -- our engineering reservoir witness has a self-affirmed statement to present at the end.

With that, Mr. Examiner, if we may be
permitted, we would like to proceed to have our witnesses sworn in and then to put on our case.

THE HEARING EXAMINER: All right. And who are your witnesses today?

MR. RANKIN: Mr. Examiner, we have two witnesses, Mr. Stephen Janacek and Mr. Jared Rountree, who I think are appearing hopefully on your screen.

THE HEARING EXAMINER: Yes. Let's start with each witness giving us their name. Mr. Rountree? And spell it.

MR. ROUNTREE: Hi. I'm Jared Rountree.
THE HEARING EXAMINER: Could you just spell your name, please?

MR. ROUNTREE: J-A-R-E-D
$\mathrm{R}-\mathrm{O}-\mathrm{U}-\mathrm{N}-\mathrm{T}-\mathrm{R}-\mathrm{E}-\mathrm{E}$.
THE HEARING EXAMINER: Thank you.
Mr. Janacek?
Mr. Janacek: Hi there. Stephen
Janacek, and that is spelled $\mathrm{S}-\mathrm{T}-\mathrm{E}-\mathrm{P}-\mathrm{H}-\mathrm{E}-\mathrm{N}$
$J-A-N-A-C-E-K$.

THE HEARING EXAMINER: Thank you. Both of you, raise your right hand. WHEREUPON,

JARED ROUNTREE AND STEPHEN JANACEK, called as a witnesses, and having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, were examined and testified as follows: THE HEARING EXAMINER: Excellent. Please proceed, Mr. Rankin.

MR. RANKIN: Thank you, Mr. Examiner. I'd like to call OXY's first witness, Mr. Stephen Janacek.

DIRECT EXAMINATION
BY MR. RANKIN:
Q Mr. Janacek, please state your full name for the record.

A Sure. Stephen Janacek.
Q And by whom are you employed and in what capacity?

A OXY USA Incorporated as a petroleum engineer.

Q Have you previously testified before the Division?

A Yes, I have.

Q And have you had your credentials as an expert in petroleum engineering accepted and made a matter of record by the Division?

A Yes.
Q And you're familiar with the application that was filed in this case?

A Yes.
MR. RANKIN: Mr. Examiner, I'd retender
Mr. Janacek as an expert in petroleum engineering.
THE HEARING EXAMINER: Hearing no objections, it's so admitted.

MR. RANKIN: Thank you.
BY MR. RANKIN:
Q Mr. Janacek, I'm going to pull up on my screen the exhibits here that were filed, but is what's been marked as Exhibit A a copy of the application that OXY filed in this case --

A Yes, Exhibit $A$ is the application.
Q Explain what it is briefly -- if you would, at a high level what it is that $O X Y$ is requesting with its application.

A Sure. So in this instance, OXY is -- is requesting and wants to expand our Avogato closed loop gas capture project under order number $\mathrm{R}-22101$ with the following included: The first -- first item we're
asking for is expanding the project area.
The second item we're asking for is authorizing 11 additional injection wells or CLGC wells or gas storage wells, which they'll be referred to throughout this hearing as such. To utilize those 11 additional wells for temporary produced gas injection within the Bone Spring Formation.

The third item we're requesting in this application is increasing the authorized maximum allowable surface injection pressure to be increased from the current $1,200 \mathrm{PSI}$ to $1,300 \mathrm{PSI}$.

And then finally, OXY is requesting to extend the pilot project period and all deadlines associated under order -- order number $R-22101$ for an additional two years from issuance of an order in this case.

Q So with the exception of the amendments you just stated, all the other existing provisions under order $R-22101$, they would remain unchanged?

A That's correct. They would remain unchanged.

Q Real quickly, let's just nail down the project area here as proposed to be expanded. What would the project area -- what acreage would the proposed project area comprise upon approval?

A Yes. So it's two main areas here, the first of which is Township 22 South, Range 32 East in the west half of Section 27 and the west half of Section 34. And then the second project area would be Township 22 South, Range 33 East, all of Section 31 and all of Section 30.

Q Now, in consideration of the changes that OXY's requesting here, has OXY prepared or have you prepared an analysis demonstrating that these requested changes will meet the Division's guidelines for its -- updated guidelines for its closed loop gas capture project?

A Yes.
Q And is OXY proposing to add -- it sounds like you are; right? Eleven wells. You're proposing to add these 11 wells within the same formation that was originally approved under the order?

A That is correct.
Q And that'd be the Bone Spring?
A Yes. We're looking to add the 11 additional wells within the Bone Spring, within the Red Tank Bone Spring East Pool into various other intervals besides the -- the Avalon.

Q Now, these wells are already drilled; correct? Already producing wells?

A Yes. These are all currently producing wells.

Q And these are -- and you -- I think you mentioned there's going to be some different zones. So the existing authorization under this order is currently for the Avalon Shale; is that right?

A That's correct.
Q And you're looking to add some additional intervals within the Bone Spring; what are those?

A Yes. So we're -- we're adding on. We're going to be adding two wells to target the same interval of Avalon. We're going to be targeting the First Bone Spring, the Second Bone Spring and also the Third Bone Spring lime.

Q Now, as I refer to these exhibits, Mr. Examiner and Mr. Janacek, I'm going to -- unfortunately, our pagination did not work for some reason. So I'm going to refer to pages based on the OCD page stamp.

It's the same -- if you're looking at this in a PDF viewer, it would be the PDF -- I refer to it as the "PDF page." Just the page in sequence from one to the end. I think there's 227 pages. So I'll be referring to pages within this exhibit packet based on the OCD page stamp or the PDF page number.

I apologize if that's confusing but let me know if you have trouble getting to the certain page. But I will provide the pages on the screen so you can follow along.

Now, Mr. Janacek, have you prepared a proposed -- under these orders, the Division attached Exhibits A and B which identified the wells and the acreage for the project area; correct?

A Correct.
Q And have you prepared a revised Exhibit A for an amended division order that identifies the project area, the pool name and pool code and all the wells that you're proposing to authorize for temporary injection under this proposed amendment?

A Yes, I have.
Q And that's within your Exhibit B, and I'm going to put it up here. It's actually PDF page or OCD stamped page 143; is that correct?

A That's correct.
Q And this is just a way for you to provide the Division a quick reference guide for the wells you're proposing to include, locations, the pool codes and so forth; right?

A That's correct.
Q Okay. And did you also do the same for a
proposed amended Exhibit $B$ for the same purpose?
A That is correct. Same purpose here as well.
Q Okay. And what's the difference? What does Exhibit $B$ show in addition to the wells that are going to be the injection wells?

A In addition to the listed gas storage wells here in Exhibit B, we're also listing out the up players, as $I$ provide in our application, along with the offset wells. So we have offset well API numbers and offset well names included as well.

And in this instance, an offset well is defined as a well immediately offset within the same producing interval next to that of a gas storage well.

Q And you did that just in order to help facilitate the Division's review, give them the wells that you've identified as the offset wells and just kind of facilitate their review of your application?

A That is correct.
Q Okay. Now, these wells, because you're targeting now different intervals within the Bone Spring, they all have different various vertical depths corresponding to, as I understand, the Avalon, the first, the Second Bone Spring and the Third Bone Spring lime; is that correct?

A Yes. That's correct.

Q And you prepared a -- sort of a gun barrel view along with the offset wells to also facilitate the Division's review and understanding of what you're proposing?

A Correct.
Q And that's page 145 of the exhibit packet; is that right?

A Yes. The Taco Cat gun barrel view is on 145 and the Avogato gun barrel -- on 146.

Q So starting with the Taco Cat, just so the Division understands what we're looking at here, just explain what we're -- what you're showing in this exhibit.

A Sure. So in this exhibit on page 145, we're looking at a gun barrel view -- what we call a "gun barrel view" of the Taco Cat development area. What we have is a simplified diagram to orient us vertically as well as easterly and westerly -- if that's a word -- across the developed sections.

So what we have is east on the right side, west to the left, and then the pertinent producing Bone Spring intervals in descending depths. So we have the Shalos [ph] interval, the Avalon, then we proceed deeper into the First Bone Spring and then deeper more into the Second Bone Spring.

And looking at the specifics, we have the black circle indicating the existing approved gas storage well, the Top Pad 11H in -- in short script, the name for that well. And then we have, below it in the Second Bone Spring, an additional 2023 gas storage candidate. That is the Taco Cat 21 H , indicated with the red circle.

And then finally, we have -- off to
the -- to the east of the 21 H , there is a directly offsetting well, the Taco Cat 24 H , which is identified as an offset well in the application.

Q And just so we're clear, where you have the red dot, the 2023 CLGC -- that just means that this is one of the wells you're proposing to add to the project; correct?

A That's correct. That's one of the 11 wells that we're proposing to add --

Q Okay. Let's look real quickly at the Avogato gun barrel view, and similar layout here. Just if you would just confirm what we're looking at with this slide.

A Sure. So moving over to the Avogato area further to the east from Taco Cat, we have another development area. Similar components here.

We have east on the right-hand side and west
to the left and then we're going through from the shallowest to the deepest Bone Spring target intervals, Avalon at the top, then the First Bone Spring, the Second Bone Spring and then finally at the bottom, the Third Bone Spring lime.

Starting with the black circles, you can see the three previously approved gas storage wells. Those are the Avogato 11H, the 13 H and the 14 H , which we are currently utilizing for gas storage. And then we have the other ten red circles indicating the ten additional gas storage wells we will add in the Avogato area.

And then finally, there is one additional offsetting well, which is the Red Tank 31 5H, which is a horizontal well that was drilled perpendicular to these and that is highlighted with the yellow well trajectory.

Q Now, in general or approximately what's the range of depth here we're talking for injection from the shallowest to the deepest?

A Yeah. The approximate range of injection depths are about 933 feet at the shallowest depth and true vertical depth and then the deepest, I believe, is around 10,960 feet at the deepest point, and that's in true vertical depth as well.

Q And I think you said, "933 feet," but I think you probably meant 9,000; is that right?

A That's correct. Thank you.
Q No problem. And then just to -- just for the record to be clear, OXY is requesting the dismissal of one of its previously approved closed loop gas capture project orders; is that right?

A That is correct.
Q Just explain the reason for that.
A Yes. So the reason why we were -- are requesting dismissal of a previously approved closed loop gas capture project is because this expansion -- the proposed expansion we're presenting today of this pilot project area in order number R-22101 will include the project area and the wells to authorize for injection in the order number $R-22102$. So OXY is seeking to dismiss the order number R-22102.

Q Okay. Now, in -- I think you'll walk through it in more detail how that's come to pass and why, but just so we also know I think for language because $I$ think it may come up elsewhere in your testimony, the Taco Cat areas and the Avogato areas together are referred to by OXY as the Red Tank area; is that right?

A That's correct. They're both located in an area that OXY is -- is considered as the Red Tank area --

Q I'm going to scroll ahead here to the next page in the exhibit packet and this is an overview of the previously presented facility maps. If you just would explain how the facilities and the project areas were set previously and then how they've come to change, which $I$ think explains why you're seeking to combine them now.

A Sure thing. Okay. And as I talk through them, I might have you zoom in, if you can, as we talk through some of the specifics.

Q Sure.
A So overarching statement of this slide in the exhibit is a overview of what was submitted in 2021 for the gas storage project areas. These were two separate project areas submitted in 2021 because there were, at the time, two different gas gathering systems and two different gas takeaway points or gas sales points.

And so what we're seeing here is on the left, we have the Taco cat project area and the previous facility map for that project at the time and on the right-hand side, we have the Avogato project
area and its facility map of the project at the time. Walking through those, we'll talk through the map on the left, which is the Taco Cat area. Yeah. Maybe one more bump and zoom in. Thank you, Adam.

So here talking specifically to the Taco Cat project area map, we included the main facility components that are involved in the gas storage project. So there are a lot of other facilities out here that we don't speak to in the map.

So talking through them and breaking down the map, we're focusing on Taco Cat and the dotted outline is the outline of the project area. Then we have the black well trajectory of the gas storage well here, the Taco Cat 11H. This includes the -- the first take point or $\operatorname{FTP}$ as well as the last take point or LTP.

The green line -- if you trace it from the surface hole location at the wellhead, the green line leads to the central tank battery or CTB and in this instance, the central tank battery and GasLib compressor station were located at the same place.

So after the produced fluids flow down the green flow line to the CTB and the CGL station, the fluids are separated out and then there are a couple
places the gas system can go. The gas can be sold to our third-party gas takeaway, which here is indicated by the blue star there on the northeast -- there you are -- northeast portion of the CTB/CGL pad.

We also have a flare located there for emergency flaring instances where gas can potentially go.

And then the final location or the final path that gas can flow is down the orange high pressure line which leads back to the wellhead of this gas storage well, and it's also connecting to other wells in our system which are artificially lifted by gas -- so that is a breakdown of the Taco Cat project area on the left-hand side.

And on the right-hand side, the same thing. The same components are listed and shown for the Taco -- for the Avogato area. Excuse me. So I'll just speak to the differences here between the two since the coloring and components are the same and the -- the flow paths are -- are similar, too.

One, the main difference here is we have three gas storage wells, the Avogato 11, 13 and 14.

Mr. Rankin, $I$ don't know if you're trying to make me dizzy or trying to do some fancy work, but thank you. I appreciate it. There we are.

So the first difference is we have three gas storage wells over here in the Avogato area. We also have different centralized tank batteries. Here, it's Red Tank 19 CTB. And then we also have a different compressor station, Red Tank 19 CGL.

So those are the main different components as well as the different flare located at the CTB and also a different gas takeaway point as well. So that's how the projects were grouped back in 2021 based off of the -- the gas gathering systems.

Q So now you've got an updated circumstance here on your next slide exhibit. Will you just review how that facility's setup has changed?

A Sure. So again, here we have the Taco Cat area to the west, we have the Avogato area to the east and all of the same components for the most part, same colorings, same -- same wells with new wells added.

And then we also are showing here two changes that -- that happened to the system, the first of which was tying these two systems together on the high pressure gas line. So we tied into an existing high pressure gas line to connect the Taco cat high pressure system to the Avogato high pressure system.

And then second to that, we also installed and tied into the red low pressure pipeline -- gas
pipeline between the two to connect the systems.
So after this was done, both of these areas were effectively combined and became one new system. And then the final change was a new gas takeaway point with the new gas processing plant so those were the -- the major three changes here when we combined the two project areas into one.

Q Got it. Now, that -- I think that covers the project area. So this -- when I look at this map that shows the Avogato area, was it -- enclosed in the blue dashed line and the Taco Cat area enclosed in the blue dashed line. Those two areas combined would comprise the new expanded project area; correct?

A That is correct.
Q Okay. Now, for each of the wells -- each of the 11 wells, have you provided, in your exhibit packet, the as-drilled Cl02s for each of the wells?

A Yes, we have.
Q And I'm going to refer -- those are pages, I believe, 21 -- beginning at page 21 of the exhibit packet through page 33 ; is that correct?

A That's correct.
Q Okay. And have you prepared updated proposed injection well data sheets for each of the wells that you propose to add that provide details in
terms of the well casing cement wellbore schematic for each of these proposed injection wells?

A Yes.
Q And are those included in Exhibit $B$-- and I'm going to just give you the page numbers on the exhibit pack -- at 150 to 171 of the exhibit packet?

A That is correct.
Q Referring to those exhibits, I'm -- there's a lot of them, Mr. Janacek. So rather than go through each one, if you would just sort of identify, at a high level, key features that OXY is proposing to incorporate in its well design for these currently-producing wells when they are prepared for intermittent temporary injection.

A Sure. So first thing to note is the wellbore data sheets that were submitted in the original application are the current wellbore diagrams. They were not the proposed injection diagrams. So that's why the updates were made.

So talking through that on a high level, the proposed injection data sheets reflect various parts of information that are pertinent to the construction of the well.

We have provided information on the surface, intermediate and production casing strings that touch
on the primary cement and placement of that cement and then we have a wellbore schematic on the left-hand side.

Then on the second page of each data sheet, we have some additional information regarding the type of packer that we will be installing along with where that packer will be set with the respective $T B D$ and measured depths included.

And then there's additional data included as well in the latter 25 percent of the form speaking to the name of the target injection interval as well as the -- the pool that we're injecting into along with any names and depths of the underlying and overlying producing zones. I believe that is all I have in regards to the injection data sheets.

Q Okay. Were there -- in each case, is there an issue -- are there any issues with the packer setting depths or anything that needs to be updated in terms of the wells?

A There aren't any issues per se. However, we will need to -- on two of our wells that are currently under tubing flow gas lift, we will need to set those packers deeper to comply with the packer setting conditions, as stated in the previous order.

Q Now, as far as -- you mentioned cement and
the cement data on each of these wells. Has OXY submitted or will it submit electronic cement bond logs for each of the wells to the Division's online well file?

A Yes. We have submitted that as well online. All of the CBLs have been filed.

Q Great. Now, among the other requirements that the Division imposes for these -- as a guidance for these closed loop gas injection wells is confirmation of mechanical integrity. Has OXY performed or confirmed the mechanical integrity of these wells?

A We plan on, if we haven't done so already, running a new mechanical integrity test on the wells once they are converted to the proper downhole configuration for gas storage. So a little bit of information on that. These wells are in various -- various artificial lift methods and production times within their lives.

So we have some wells that, as of today, are currently producing with electric submersible pumps, some that are producing with annular gas lift, and that is annular flow gas lift with injection down the tubing, and then we also have some wells that are producing with conventional gas lift, which is
injection down the casing tubing annulus and injection up the tubing.

So all of these wells, once they are converted to the conventional gas lift setup downhole, the mechanical integrity test will be ran and performed during that workover operation.

Q So on page 172 of your exhibit packet, you've got a summary table that outlines the current status of the mechanical integrity testing that's been conducted on these wells. And just review, if you would, just what this shows and the meaning of the red lettering and generally --

A Sure. So this table here, this summary table, breaks down for each well existing and the red proposed expansion wells our -- our research on the -- the history of mechanical integrity tests that have happened at various points within the well's history.

So we can see that there are some wells that have multiple mechanical integrity tests, mainly the four black existing gas storage wells which had mechanical integrity tests performed last year in April before we started utilizing these wells for -- for gas storage.

Q So just in short basically, as per the
condition under the order, OXY will conduct an MIT on each of these wells once they're set up for conventional gas lift and injection?

A That is correct. And I -- I want to emphasize along with MIT, OXY plans on utilizing these wells for gas storage once they are conventional. Like you said, we don't plan on any type of gas storage activities regarding annular flow wells.

Q Okay. Now, I think that covers the construction setup of the wells, and then $I$ want to talk now about the maximum allowable surface pressure. You guys were currently operating under a limitation of $1,200 \mathrm{PSI}$ and the request is to go up to 1,300 .

If you would, just explain why it is that OXY's requesting that 100 PSI increase and what it will achieve for you.

A Sure. So the reasons behind the request are twofold. One, it is to align the maximum allowable surface pressure for gas storage with that of the -- the centralized compressor stations and those shutdowns of $1,300 \mathrm{PSI}$.

And then the second reason is after -- after looking into it further and after experiencing some of the longer storage events -- greater than 24 hours is what $I$ would consider a longer storage event. As we
approach our maximum allowable surface pressure, we see our injection rate start to fall off or decrease over time per our reservoir modeling prediction.

So if we're able to increase our maximum allowable surface pressure here, we'll be able to increase our -- our injection rate and therefore incrementally increase the storage volume over the period of time that the storage event is taking place.

Q Now, have you conducted updated calculations following the Division's guidance based on the proposed increase in the maximum allowable surface pressure for each of these proposed injection wells

A Yes, we have.
Q And is that on your Exhibit $B$ at page 173 of the exhibit packet?

A Yes, it is.
Q If you would, Mr. Janacek, just walk through the key elements of this table and explain for the Division how it shows that each of these proposed wells will meet the Division's guidance for its numeric requirements.

A Sure. So this maximum allowable surface pressure table, or MASP table, was put together to address the guidance from the Division regarding closed loop gas capture projects. And what we've done
here, like you stated, was updated the information with the higher MASP of 1,300 PSI.

So what we have done is we have listed all of the wells with their API numbers and their well names. And again, similar trend here. We have the existing wells with black well names and then we have the 11 expansion wells listed with red well names.

And then on the bottom, the very bottom two rows, we can see a column row and then we have the calculation row. And so what that does is that references, for the three calculated columns, how the -- the calculations were done.

So digging into it further we have, you know, a whole bunch of colors here -- four more colors to talk through. We have the blue section on the left which speaks to the current operating parameters regarding rates and pressures as well as the proposed operating parameters during a gas storage event.

Then we move on to the right where we have the orange section, which is the section that touches on some burst calculation comparisons whenever we look at the maximum allowable surface pressure applied with a brine gradient down to the -- the weakest point in the casing string, the production casing string.

And what we're seeing here in column nine is
for all of the wells that's listed here, the maximum anticipated pressure -- excuse me -- the maximum anticipated pressure plus the reservoir brine hydrostatic is -- is far below that of the casing burst pressure. Everything is at 50 percent or below. So that -- that is not a concern that OXY has.

Moving over to the right-hand side, we have the gray area, which is looking at the gradient calculation to the top perforation depth. So you can see it varies per well, but in essence, all of these MASP gradients are less than 0.2 PSI per foot.

And then finally, we have the green columns and the green columns are information and calculations that are connected to or dealing with the formation parting pressure. So what we've done is we've taken the top perforation depth and true vertical depth, brought in assumption for a -- a really high gas pressure gradient.

We also looked at the formation parting pressure gradient over here and then we did a percentage comparison whenever we -- when we apply the maximum allowable surface pressure plus a gas hydrostatic, and we are well below the formation parting pressure here. We're at -- I think the largest value is 52 percent of the formation parting
pressure.

So that is an overview of this MASP table that was ran and updated for the new proposed maximum allowable surface pressure of 1,300 PSI.

Q And just to confirm, each one of those elements or requirements is met under the Division's guidance?

A That is correct.
Q Now, thinking about the gas here. Just to confirm that what OXY's proposing to do here will be to reinject produced gas into these wells during intermittent upsets from midstream operations; is that correct?

A That is correct. We will be injecting treated produced gas back into these wells.

Q And the purpose of that would be to avoid the need to flare during emergencies or upsets and potentially to have to shut in these wells during prolonged periods; is that right?

A That is correct.
Q And here, you're talking about produced treated gas. So what are -- what's the source of the proposed injection gas?

A The source gas is all the produced gas in the gas gathering system. So within the system, we've
got various wells producing from various formations and all of those are producing with an approved gas surface commingling permit. And here, we've included some of the gas analysis per the guidance of the OCD that is listed in their guidance document.

Q So in order to confirm that there won't be any impairments or harm to either the reservoir or the injection wells, the Division's required OXY to do an analysis of the gas to confirm either that it's compatible, there won't be excessive corrosion; is that right?

A That is correct.
Q And in this exhibit starting at page 174, you've prepared a summary of OXY's gas analysis?

A Yes.
Q And that includes, in the following pages through page 184 of the exhibit packet, the actual analyzes from the laboratory that conducted the work; is that right?

A That is correct.
Q Okay. And just -- and you've identified them -- let's see. I think you've labeled them. You can see -- let's see. How are they set up --

A Top left of the first page should have -- there it is.

Q Oh, yeah. Okay. All right.
A So the first sample here -- and we -- I'll just talk through them. We first are looking at the injection gas sample. So this is the producing gas stream that is combined from all of the producing wells within the gas gathering system. So that is the first sample that was submitted.

And then moving on, we have a second gas analysis and this is an updated analysis for the Avalon, which we are currently utilizing with the four existing gas storage wells. And then if we move onward to the next gas analyzes, the red circle indicates that this is a new gas storage interval and here, we have a sample for the First Bone Spring.

Moving on, I believe the next sample should be -- yes. The -- the next example -- I'm sorry. The next analysis here is the Second Bone Spring gas sample, which we've included and has a -- a red dot indicating a new storage interval.

And then finally, the last gas analysis submitted here is for the Third Bone Lime, which is the deepest gas storage interval we are targeting here.

Q And you mentioned, I believe, that all the source wells, the source gas and the injection wells
in the project area are covered under an existing service comingling permit?

A Yes. That is correct.
Q Is -- and that's PLC-835-A currently; is that right?

A That is correct.
Q All right. And just to be clear, the formation that we're injecting into in the Bone Spring, that's all within the same pool, same pool code?

A Yes. That is all within the same oil pool code.

Q Okay. And that's the Red Tank Bone Spring, pool code 51687; is that right?

A That's correct.
Q Okay. And just to be clear, I think we mentioned this in the application, but OXY may, over time, include additional wells within that surface comingling order so that additional wells may be contributing to the injection gas?

A Yes. That's correct.
Q Now, based on your review of the gas analyzes, are there any issues or concerns regarding corrosion or compatibility as a result of adding these new injection intervals within the Bone Spring?

A No. We don't see any issues or concerns regarding incompatibility.

Q And OXY's already effectively mixing this gas through its gas lift operations within those zones; is that right?

A That is correct.
Q All right. And there's no -- oh, and then I guess you are -- and you have an existing corrosion plan in place to address any potential corrosion issues for each of these wells?

A Yes. We have a corrosion prevention plan in place for our current gas lift operations as well as the corrosion prevention plan, which is the same for gas storage events, and that was submitted in the -- the previous hearing.

Q Okay. And that hasn't changed based on --
A No, it has not changed.
Q Okay. Now, let's move on to talk about the area of review in your analysis to meet the Division's guidance. Have you conducted an area of review analysis for wells within the two mile and half mile areas of review?

A Yes, I have.
Q And I'm going to skip over or back to page 70 of the exhibit packets. Is this the beginning here
of your area of review analysis?
A That is correct.
Q If you would -- and just direct me,
Mr. Janacek, as you walk through these. Will you just walk through what each of these maps shows and how you conducted your AOR analysis?

A Sure. So as -- as you scroll down here to page 71, we are first looking at the Avogato area and the 2 -mile area of review, or AOR for short, map that was put together. This map has various components that are similar across all of our AOR maps that are submitted, so let me go through and break down the key in the bottom right.

So for this Avogato area, the first thing that catches the eye is the big blue blurb, which is a 2-mile AOR outline of the project area.

Next, if we look in a little bit closer, we can see the black well trajectories for the -- it's easy to see two and there's a third one covered up to the east. But those black well trajectories are the existing gas storage wells within the Avogato gas storage project.

Then we have, offsetting them within the same sections, the red proposed additional well candidates and their wellbore trajectories. All the
surface holes are on the -- the north side of Section 30 and then all of the last take points are located on the south end of Section 31.

Some other relative labeling would be the grain -- skinny grain well trajectories, and those are representing all of the offset wells regardless of it they penetrate the -- the top of the injection interval or not of wells that are in the AOR -- excuse me -- within the area of the AOR.

So that is an overview of the Avogato area on page 71. If we move onwards to page 72, we have a similar map with the similar components for the Taco Cat area to the west.

Here, we have the -- the blue blurb, which is the 2 -mile AOR outline, we have the red existing Taco Cat storage well -- I'm sorry -- the black existing Taco Cat storage well, the red proposed storage well and then also all the offsetting green well trajectories as well.

And there are some other various components in there that are labeling the type of -- of well at the surface hole location and that's included in the key as well. So those are the $2-m i l e$ AOR maps.

So we'll move now to the -- the next page, which is page 73. On page 73, we're doing a little
bit more zoomed in focus here and this is where the bulk of the AOR took place. So this map is the Avogato project area and we have a half mile AOR outline. So this is a half mile around all of the proposed well trajectories.

And the main difference here between the previous AOR that was conducted in 2021 and the AOR that was conducted in 2023 recently is we had some additional gas storage wells added in the east half of Section 30 and 31. So therefore, the AOR was expanded eastward, and additional wells were added here.

And we're looking at the same components with some number labels included.

So again, we have the black existing gas storage wells and their trajectories, then we have the red proposed additional storage wells and their trajectories and then we have a -- all of the surface hole locations numbered that correspond with our AOR table that is found after these maps.

So all of the wells that penetrated the top of the Bone Spring, which is our target injection pool, they were included in the AOR table and therefore, they were labeled here. So that sums up this page 73 for the Avogato area.

And then if we go to the next page, page 74.

Thank you. Page 74 is similar but different for the Taco Cat project area -- excuse me. So in this map, we're focusing on the Taco Cat area.

Again, we are looking at the existing gas storage wells, the proposed gas storage wells, the offsetting green well trajectories and then the labeled surface hole locations of all the wells found within the half mile AOR penetrating the top of the Bone Spring pool. And I believe that is all I have to say about those maps.

Q Now, you mentioned, Mr. Janacek, that you've got these numbers associated with the wells that fall within the half mile area of review that you've marked here on the maps and that corresponds with the tabulation of data. Will you explain to the examiners -- oh, my goodness.

A You're going to -- you're going to have to zoom in there and we'll --

Q Just at a high level, Mr. Janacek -- 'cause they can zoom in, too. What does this tabulation of data show generally? Explain the elements just at a high level and then we can talk through whether or not you've identified any wells of concern within the area of review.

A Sure. So here, we have the AOR table which
breaks down all of the wells found within the half mile AOR -- AOR. We have the bold and black -- it's kind of hard to see, but the bold and black is all of the previously approved CLGC wells and then we have in red the -- the requested expansion wells for this year.

The other wells listed out are the wells found within the AOR, and we have various aspects tabulated here. We have some general well information with the API numbers, the current operator of the wells, lease names and well numbers.

Then we have a breakdown of surface hole locations of these wells and then we get into some of the drilling and completion information, which is spud dates, true vertical depths, casing -- casing information, cement information.

And then finally, the last couple columns speak to the current completed -- completed intervals that these wells are currently producing from, and those are in measured depths. And then we also are showing the current producing pool for -- for each of these wells.

Q Based on your review of the wells within the area of review that penetrate the injection interval, have you identified any wells that have been $P \& A ' e d$ or
temporarily abandoned within the area?
A Yes, we have.
Q And have you prepared the wellbore schematics for the condition of those wells?

A Yes. We developed wellbore diagrams for those.

Q Yeah. And are those -- starting at page 185 of the exhibit packet, you -- I think you prepared updated ones; correct?

A That is correct. We prepared updated PA wellbore diagrams.

Q And those are in your Exhibit B and they're starting at page 185 of the exhibit packet?

A That is correct.
Q And I'm not going to spend -- I don't think we need to spend time -- a lot of time on these, Mr. Janacek, but just based on your review and assessment of the condition of these wells that penetrate the injection interval, have you identified any wells that may serve as a conduit for gas injected to leave the injection zone?

A No. We haven't identified any wells as such. And another note on why updated PA diagrams were filed. That was because we wanted to -- to include, in the upper left-hand corner of each
wellbore diagram, the AOR well ID number so it was easier for the Division to review the application.

Q Okay. And in your opinion, are these wells that have been $P \& A ' e d$ protective of fresh water and correlative rights in the area?

A Yes, that is my opinion.
Q Okay. Now, let's talk about affected parties and notice. Under the Division's guidelines, have you identified all the affected parties, including surface owners where the injection wells are located within a half mile of the exterior boundaries of the project area?

A Yes, we did.
Q And looking at pages 134 of the exhibit packet where you've identified your notice, do these pages reflect the maps showing how you identified each of the parties entitled to notice?

A That's correct. We have some of the surface ownership maps that were reviewed and then we also have some maps -- I believe if you scroll on down, we have the HSU or horizontal spacing unit maps for the Bone Spring pool for both, one, the Taco Cat area and, two, the Avogato area.

Q And so you identified operators of units within the formation, if there wasn't an operator,
then a mineral owner and so on down the affected party list; is that correct?

A That is correct.
Q And you also identified the BLM and state land office as affected parties?

A Correct.
Q And is that, the list of parties under the Division's guidance who are required to receive notice, also on your exhibit here starting at page 139?

A Correct.
Q Okay. Now, in addition to these parties that the Division has provided guidance -- a requirement for notification, did you provide additional notice to other parties as well?

A Yes, we did.
Q Who did you provide notice to?
A We provided notice to all working interest owners and all revenue interest owners of the gas source wells within this gas gathering system.

This wasn't required under the Division's guidance, but we took advantage of the opportunity to give notice to all interest owners of the -- the Division's approved gas allocation formula that is utilized following a gas storage event.

Q Okay. And now, that gas allocation formula was approved by the Division previously and that's the same. You're not changing that here going forward; correct?

A That's correct. There are no changes to that gas allocation method.

Q And that gas allocation method was included in the application, and it's attached at page -- beginning at page 131 of the exhibit packet; is that correct?

A That is correct.
Q And that just kind of summarizes and reviews how OXY is going to allocate gas between -- after a injection event. So as between the native gas that is going to be produced subsequent to injection along with the produced gas that was temporarily stored during an injection event.

A That is correct.
Q Okay. And -- all right. So that's that now. Last bit, Mr. Janacek, which I'm hoping that will rally the Division's interest here is you've prepared some data based on storage events to-date; is that right?

A That is correct.
Q Now, the reports aren't due under the orders
until -- for some time. The summary data -- this reporting out to the Division on these storage events aren't due for some time, but you've gone ahead and prepared some data that OXY has available to-date; is that right?

A Correct.
Q Okay. So I'm going to jump ahead here. This is concluded in Exhibit B, but in the exhibit package, it's on page 207 -- starting on page 207. If you would, just review -- and guide me as you do through each of these slides.

Just review, if you would, the data that you've been able to pull together and explain to the Division what it shows and how, in your opinion, it confirms that what OXY's proposing to do is appropriate and in the interests of prevention of waste and so forth.

A Sure. So starting here, we're looking at the Taco Cat project and a project summary of what's happened to-date. A couple items to talk through. Very detailed table. So starting in the upper left-hand side, we have some summary points about the project.

So over the past ten -- maybe now it's 11 months since it's April -- we've had four storage
events in the Taco Cat area and over the course of those four storage events, we've injected about 18.5 million standard cubic feet of gas during storage events.

And then we've also seen, after the storage event, various lengths of recovery to recover that storage gas. It can be as short as a day up to 29 days to recover that gas. So if we look at the right-hand side, we're looking at the -- a plot. You can maybe zoom in there a little bit. Perfect. Thank you.

So this is a plot -- very high level plot of the Taco Cat gas storage events that have happened to-date. On the X-axis, we have the net duration in days of the storage event. I mentioned net duration here because there are periods in time during a storage event where the storage well is just shut in and not injecting.

So it was -- it was a little bit easier to look at the net duration of storage events to see when we were actually injecting into these wells.

So that's on the $X$-axis and you can see we've got points over on the left where we have storage event durations of a couple hours, two that were a little bit less and a little bit more than a
day in length, and then we have the one longest event, which was about three and a half days long.

Then if we look at the Y-axis here, we're looking at the -- thank you. We're looking at the injected well volumes. Here, since there's only one gas storage well in this project area, we're just looking at the Taco Cat 11 H values and you can see that we injected very minimal values.

I think that's less than 1,000 standard cubic feet of gas injected in that very short event and then we -- as we have longer events, we have larger storage volumes. So our longest event, we injected, $I$ want to say, close to 13 million standard cubic feet of gas during the gas storage event.

So if we back out and scroll down to the table below. Thank you. The table below is talking to the specific data of each of these storage events, start and end times and other pertinent data that is based off of the order summary data requirements listed in the approved injection order.

So if we were to break it down, we have gross duration days, net duration days, injected volumes, the wells involved and then we have the specifics of the well-injected volumes, so how much each well injected, and then we have average injection
rates, max injection rates and then data as it relates to the recovery of the storage gas after an event.

So that was put together here for the Taco Cat storage project and then we also did the same for the Avogato project, which I believe should be on the next page. So here on the next page, we're shifting over to the east where we have the Avogato gas storage project and we have three approved gas storage wells.

In this area, we had six storage events, so slightly more than the Taco Cat to the west. When we have more wells, we're able to inject more gas. We injected about -- or stored about 65 million standard cubic feet of gas.

And again, we have various recovery durations based upon the length of the storage event. There was a -- a positive correlation between the length of the storage event, the injected volume and then the recovery duration.

So here, if we zoom in on this plot over to the right-hand side, we're looking at some summary data for the three Avogato wells. We've got the Avogato 11 in blue, Avogato 13 in orange and then we have the Avogato 14 in gray.

This is similar to the Taco Cat chart that we viewed previously where we have the net duration on
the $X$-axis, so the net duration of gas storage.
And then we have on the $Y$-axis the
well -- individual well storage volume. You can see we've got storage volumes close to -- close to zero upwards to the largest values being thirteen-, almost fourteen-thousand in the longer events.

One other thing to talk about in this chart is there is a little yellow star calling out one of the data points and here in the next couple slides, I'm going to go through and give a preview of the data that was put together for one of the storage wells. And this data was put together per the reporting condition stated in the approved injection order.

So here, we move onwards to the table for all of the Avogato events. There's a lot listed out here. We have information in the first couple columns that go through the event start date and the total storage volumes combined for all three wells.

Then we have specific start and end storage time for each well, which leads us to the gross duration and net duration of those storage events. And on the net duration column, we did some conditional formatting there. So the blue bars indicate the -- the length of the net duration. So you can see in -- in May, we had some of our longer
storage events.

And then walking through the -- the remainder of the table, we have the individual well names, their respective storage volumes, average injection rates and max injection rates for each storage event and then finally, we have the recovery start and end to calculate the recovery duration for each well for each storage event.

So speaking to the -- excuse me -- speaking to the yellow star below, we'll walk through a specific gas storage event. On here, we're actually highlighting the incorrect well and event. It should be the row right above it for the Avogato 13H, not the Avogato 14H. So that's the data that we'll be reviewing in the -- the next two slides.

So I believe that's all $I$ have regarding that table, so we can move on. Okay.

So on this -- on this slide on this exhibit page, what we're looking at is specifically the Avogato 13 H gas storage well and a specific storage event that happened beginning on January 31st of 2023. And the data that we're looking at here is per the injection order reporting requirements.

So we are showing a lot of information here, mainly our casing pressures, our injection rates and
then our test rates, and we're looking specifically at data before, during and after a storage event. So let me walk through this with you and then we'll -- we'll break down each of the different data trends.

So on the X-axis, we're looking at time and we see that we start around January 30 th and then the data -- the plot on the data ends around midnight, February 3rd, so basically the beginning of February 4th. And so this encapsulates not only the storage event, but a period of time before and after the storage event.

So if we're to focus in on the gray gas injection flow rate -- that is the values correspond with the $Y 2$ axis on the right-hand side of the upper chart -- we can see that during normal operations, we have a fairly low gas injection flow rate injecting this well.

I want to say, looking at this and eyeballing it from the chart, somewhere around three- or four-hundred gas injected per day. So as we go along in time and we go to the right on the $X$-axis, we'll see a jump up in our injection gas rate and that corresponds with a gas storage event.

So what will happen whenever that gas storage event is initiated -- there's a couple things.

One, we're going to see our injection rate increase. So we can maximize the injection volumes going into these wells during a storage event.

And then, two, other things we're seeing happen, other values were increasing. Look at the orange line. The orange line are the production casing pressure values. So this correlates with the injection surface pressure of our gas stream going down the casing to the annulus.

So we'll see a jump here, too, that
correlates with a increase in injection rate. So those two will trend together.

And then finally, the third item that we're seeing change here is the dark blue tubing pressure. The dark blue tubing pressure, which is normally at -- it's normally around, I want to say, three-, four-hundred PSI.

It will -- once we shut the producing valve on that wellhead, the tubing pressure will start to build up as it equalizes with the casing pressure and then those will start to track once we get towards the higher end of our injection pressures and then they'll equalize and -- and overlap.

As we see, we get to the end of the storage event there. It's hard to see the underlying orange
production casing pressure.
So once the gas storage event ends and we're able to sell our gas to the third-party takeaway again, all of the data changes. All the data changes and goes back to within normal operating parameters.

The first item we see is we see a drop in the gas injection flow rate. It's actually dropped down to zero because -- for a bit of time because there's some pressure in the wellbore. That well will float back.

Then the second item that we see change is the dark blue tubing pressure and that's indicative of us opening the producing valve and producing fluids from this well back down the flow line.

And then third, we see the orange production casing pressure fall back down and trend with the injection -- injection rate. And then at that point in time, we've reverted back to normal gas lift operating parameters and that's what we're seeing here.

So there's two more things I want to talk about on here, one of which is the casing pressure for the intermediate string and the surface string, which is per the injection order conditions.

Before we start utilizing these wells for
gas storage, along with the mechanical integrity tests that were performed, we also installed PITs or pressure transducers, on the two brain head valves.

One on the intermediate production annuli for measuring the intermediate casing pressure and then one, another, on the -- the intermediate surface casing annulus to measure any surface casing pressure buildup.

So after doing so and looking at this data, there are no concerns. If we look at the light blue data, which is the surface casing pressure, it -- it pretty much tracks right above zero for all of this period of time we're looking at. So we don't observe any increase or decrease in surface casing pressure.

And additionally -- you can kind of see the bottom of it tracking along the same point, the yellow intermediate casing pressure. There's no change in that casing pressure before, during or after a storage event. So we don't have any concerns there.

And then finally, the -- the second item I wanted to address is the oil and gas test rates before and after a storage event for the storage well. So what we're seeing here is the gas storage -- I'm sorry.

What we're seeing here are the oil
production tests. They're pretty similar. The second one is a little bit less because we don't have a full 24-hour test at that point in time -- I'm sorry. We have a 24 -hour test, but we weren't producing for -- for 24 hours since the well was still in a storage event.

And then we can also see some of the plotted red gas test values. So we can see that before a storage -- storage event, we have roughly 2 million gas produced a day.

And then after a storage event, we have upwards of 3,000 , trending downwards, produced gas that is higher because we have a combination of our -- our reservoir gas production from the native gas and then we also have a return of the storage gas volumes that were stored in this well during the storage event.

So I believe that is all I have for this slide. In -- in summary, we're seeing -- seeing no major issues with the data collected before, during or after a storage event for this particular well. And then $I$ think -- I think that is it for the data. Is there another data?

Q Mm-hm.
A Oh, yes. There's one more chart. So
finally, what we're looking at here is some more data for this specific well and this specific storage event and we're mainly looking at showing how the recovery profile chart is calculated and put together for this well.

So as mentioned earlier, we are applying a GOR gas allocation to these wells after a storage event because we need to break out the native gas production, the gas lift gas injection and then the return of the storage gas.

So there's various elements plotted here per the order data requirements, but $I$ will just focus on a couple key items. So X-axis, again, we're -- we're looking at time. The $Y$ axes, we're looking at the values of various -- of various items.

Looking specifically at the -- starting January 31st, we have the start of the storage event and so we have the injected values for that day. So you can see we've got injected values for that day, the following day and then an additional day at the end and those are the values injected during the storage event.

Then after the storage event ends sometime during the -- the -- during February 2, 2023, we start to produce back the -- the storage gas along with
various other fluids.
So we're looking here at all of our injection streams, the purple gas lift injection, along with our production streams, which are oil, reservoir gas and return of storage gas and then our overall cumulative wellhead gas production.

So those values are -- are located on here and were -- and the calculated value is the native gas value based off of the gas/oil ratio that we consider before a storage event.

And finally, the last element to speak to here is the orange line, which starts at 0 percent on February 2nd, and this is plotting the percentage recovery of the cumulative gas injection. So we start at zero because we're starting to recover the gas injection from -- after a storage event.

And you can see very early on is when -- is when we see the largest return of the gas storage volumes and then it starts to taper off over time.

And for this well, it looks like it was roughly about ten days until we recovered 100 percent of the storage gas and this was based off of the GOR gas allocation calculation that was applied and -- and approved by the Division.
With that being said, I think that is all
the data here that $I$ wanted to share today. This is just -- just a glimpse of one well and one storage event that we've been -- that we've been capturing data on and this will be submitted in the summary report at the two -- at the end of the two-year pilot project period to the Division.

Q Thank you, Mr. Janacek.
Now, in terms of this particular application and the request to expand the project area and add these injection wells and make the amendments to the maximum allowable surface pressure, is OXY requesting that the Division consider its application and make these changes and issue an order on a relatively -- I don't want to say, "Expedited," but a relatively expedited basis?

A Yes. That would be OXY's request.
Q Can you explain why that is and maybe just give a little context?

A Sure. So we would -- we would like approval of this project sooner rather than later because of the additional development that we have coming online in this Red Tank area.

We have a lot of additional development coming online and we want to make sure we have everything in place to -- to reduce our emergency
flaring, reduce the flaring and also reduce the amount of potential shut-in we have to perform.

In addition to the new online development occurring, we also have a majority of our gas takeaway interruptions happening during the summertime. So those two events are colliding or are happening at the same time and we want to do all that we can to get in front of that potential issue.

And so if we're able to add on new wells to this existing project, we'll be able to bring on a handful of wells pretty quickly to start gas storage operations very soon.

Q And that -- therefore, in your opinion, I guess, Mr. Janacek, that approval of this application will help reduce waste?

A Yes. That is correct.
Q In your assessment of the consequence of this project and the results or impacts on any of the wells, have you found any impairment of correlative rights as a result of injection or subsequent production of injected gas?

A No, we have not found anything. One additional comment that $I$ wanted to add on and address here because I did not mention it previously in the data.

We did look at some of the offset well data as per the order requirements and to date, the data we've reviewed, we do not see any positive or negative impacts on the mechanical integrity or the hydrocarbon production of offset wells. So I wanted to mention that as well here.

Q And in addition, based on your analysis, assessment of the initial injection events, have you found any adverse impacts on the storage wells themselves following with subsequent production?

A No, we haven't found any negative or positive impacts on these gas storage events to date.

Q Okay. Mr. Janacek, did you prepare OXY Exhibits A and B or were they prepared under your direction and supervision or do they constitute OXY business records?

A Yes.
MR. RANKIN: Mr. Examiner, if you're still there, I appreciate if we would move the admission of Exhibits $A$ and $B$ into the record. (OXY USA Inc. Exhibit A and Exhibit B were marked for identification.) THE HEARING EXAMINER: Hearing no objections, so admitted into the record. / /
(OXY USA Inc. Exhibit $A$ and Exhibit $B$ were received into evidence.)

MR. RANKIN: Mr. Examiner, at this time, we would pass Mr. Janacek for questions by the Division.

THE HEARING EXAMINER: Thank you.
We're going to take a break till 3:40 and Mr. Janacek will be on the hot seat.
(Off the record.)
THE HEARING EXAMINER: Ready for
questions for Mr. Janacek? So we have a special guest technical examiner with us, Mr. McClure, and so I'll start off with Mr. McClure.

THE TECHNICAL EXAMINER MCCLURE: Thank you, Mr. Brancard. Mr. Janacek, I do have a few questions for you. Maybe start off with some -- the more general questions with real fancy answers, I assume.

Reference is made within the application $--I$ don't think we talked about it today during your testimony, but $I$ believe there was reference made to some of the gas that's sourced from the Harkey Formation. We are just referring to one of the sands in the Second Bone Spring; right?

THE WITNESS: That is correct.

The -- the Harkey here is what we're -- we tried to refer to as the Third Bone Spring Lime as well. So it's referred to either the Harkey or the Third Bone Spring Lime here.

THE TECHNICAL EXAMINER MCCLURE: I probably -- just say that one more time. The Harkey referring to the Third Bone Spring lime. It's not in the Second Bone Spring?

THE WITNESS: No. I -- I
believe -- and we can have the geologist confirm. I believe that's one in the same as the Third Bone Spring Lime.

THE TECHNICAL EXAMINER MCCLURE: Okay. When you were referencing "conventional gas lift," we were just referring to injection via the casing and production up the tubing; correct?

THE WITNESS: That is correct.
THE TECHNICAL EXAMINER MCCLURE: Okay. Understanding that we do have a corrosion prevention plan submitted in the prior case, please resubmit that for this case as well. I think you had just kind of a one-page slide, page 57 of 154 , from the prior case.

If we could just resubmit that into this record as well, assuming it's still the same and if not, update it if you would, please.

THE WITNESS: Sure. We can do that. THE TECHNICAL EXAMINER MCCLURE: Very good. As far as these 11 wells, their typical oil production just in a -- not exact figures, but just in order of magnitude, are we talking -- they tend to -- they're tending to be like between 50 to 100 barrels per day or between 100, 150?

THE WITNESS: I don't know in general terms. I'd have to look into that for you. THE TECHNICAL EXAMINER MCCLURE: Okay. Yeah. No, I'm able to look at it on my side, too. I didn't know if you had kind of known from a general term. So in terms of choosing these wells, it was more along the lines of their location and connectivity to the system rather than perhaps their current state of production; would that be correct to say?

THE WITNESS: Yes, and there were some other -- other considerations factored in as well. Even though these wells aren't currently, in their lifetime, ready for gas storage tomorrow based off their current production, we wanted to go ahead and have them permitted in case they were to be converted to conventional gas lift within the -- the next year or so and then utilized as gas
storage wells at that point in time.
THE TECHNICAL EXAMINER MCCLURE: I got you. But there would be some correlation between a decline in production and when you put it into conventional gas lift, though, is the thought process?

THE WITNESS: Yes. That's correct, depending upon where it is on the -- on its oil production decline and also factoring in when we're changing artificial lift methodology.

So any type of downhole changes to lift equipment correspond with some of the conditions in the injection order, such as the MITs as well as the injection packer placement.

THE TECHNICAL EXAMINER MCCLURE: Yeah. Now, as far as being somewhat of a correlation to decline in production, would it be more fair to say a decline in gas production rather than oil production, though?

I mean, obviously there's going to be some correlation there as well, I would assume, but the gas would be the more prevalent reason or the reason for shifting it to conventional gas; is that correct?

THE WITNESS: I believe so. I'm -- I'm not -- I'm a little bit removed from the production
side of things, but $I$-- I guess that -- that might be one of the reasons why it was -- it -- they were selected and converted at that point in time.

THE TECHNICAL EXAMINER MCCLURE: Okay. Okay. Yeah. No. Okay. Yeah. No. Because I was just going to ask -- if you do know, I was going to get the answer from you, but no, no big deal --

THE WITNESS: Sure.
THE TECHNICAL EXAMINER MCCLURE: That's
fine. Another quick question for you. It looks like what we have listed as the source wells here -- or it seems like there's a discrepancy between those and the PLC 835A. My assumption would be the PLC 835A is for wells that's going to be getting produced and you only put the ones that is produced.

I just wanted to confirm that that's the case or, diversely, whether maybe there's some that's in that commingling order which ain't necessarily ever going to be included in this particular gas lift package.

THE WITNESS: Good -- good question. To address the difference between the two, our gas source list is a subset of all the wells on the gas surface commingling and that subset is filtered by actively producing wells.

So there are some wells that are not included that will be developed and online in the foreseeable future, but as of March 2023, they weren't online and producing.

THE TECHNICAL EXAMINER MCCLURE: Okay.
And now, towards that end, do we have -- do you have any reason to believe that bringing those wells online will have an effect on the composition of the source gas? That's kind of the reason I'm asking, I guess.

THE WITNESS: Yeah. I hear you.
I -- I don't know. I can't answer that at this point in time. I -- I don't know what target zones those wells will be producing from nor do I know, you know, kind of the relative volumes of -- of what currently is being produced from each of the intervals versus the new ones. So I do not know.

THE TECHNICAL EXAMINER MCCLURE: Okay. I guess just to carry the thought on through, though, if the source gas were to become more corrosive, it would be OXY's intent to re-evaluate their corrosion plan and update it if needed and then submit the updated plan to the Division if it was updated; is that correct?

THE WITNESS: Sure. That's correct. So if we saw something that needed to be addressed
after any of the new plan development came online, we would make those corrections to address any potential issues in our gas storage operations as well as our gas lift operations because both are impacted equally by our corrosion -- potential corrosion issues.

THE TECHNICAL EXAMINER MCCLURE: Very
good. A quick clarifying question. I believe this is what you said, but just to confirm.

On your event tables, project summary with all the event tables on there -- or the table that has all the different events broke out, when you refer to "gross injection," that was the total shut-in time for the injection well and the "net injection" was actually the time that it was being injected into; is that correct?

THE WITNESS: Yes, that's correct. So if we look at specifically the Taco Cat project summary on page 207 of 227.

If we look at the first event starting on May 9th of 2022, the gross duration is, like you referenced, the shut-in time of that well from when we initially shut in the production side to when we open it back up. So that would be from the start of 11:49 a.m. to 3:39 p.m. on May 9th.

And then the net duration corresponds
with the amount of time that we were truly injecting at a rate greater than zero for gas storage. So that's what we're -- that's what we're looking at here in the data.

THE TECHNICAL EXAMINER MCCLURE: Yeah. And in the one that you just referenced, they're matching time. So you were injecting pretty much the entire time that the well was shut in on that one.

THE WITNESS: That's correct, and that's what we see for a majority of the wells and for a majority of the storage events.

THE TECHNICAL EXAMINER MCCLURE: Now, on your Avogato project summary, you have several rows that were not available. That's just a anomaly on your data entry or was there something about those?

THE WITNESS: Oh, good question. For the not available or not applicable labels, the cells that are "N/A," those are when we didn't have any storage associated with those wells.

THE TECHNICAL EXAMINER MCCLURE: Okay.
THE WITNESS: So operationally, we focused on utilizing first the Avogato 13 and 14 H and then if we needed it, we'd bring on the 11 H third. So if we needed the additional capacity -- additional storage capacity, we would bring on the 11 H last. And
as you can see here, there's two storage events where we did not utilize the 11H during either one.

THE TECHNICAL EXAMINER MCCLURE: Okay.
I see what you got going on. Okay. Yeah. I was missing that. But yeah, looking at it again with what you just said, yeah. Each one of your kind of bold lines of those sets of three wells there is a separate event and then you have each of the wells broke out. I got you now.

THE WITNESS: Correct. Correct.
THE TECHNICAL EXAMINER MCCLURE: Okay. Now, when we look at the actual -- I guess not the recovery profile, but the graphed data for the more specific data points. I guess the one -- the graph that's on page 210 for the Avogato 13H.

THE WITNESS: Okay.
THE TECHNICAL EXAMINER MCCLURE: A question $I$ had for you. Now, what was it that you were mentioning in regards to why we only have a single data point shown between 22 and 23 for the oil test rate and the gas test rate?

THE WITNESS: So for that one there, we just are showing the 24 -hour cumulative test rate. The -- that was the data frequency interval for after a storage event, if I interpreted that correctly, as
stated in the order. It was mainly -- I -- I believe the high frequency test rates were requested to be shown for the offset wells during the -- the storage event.

THE TECHNICAL EXAMINER MCCLURE: And I was going to say if the order requirement is for the 24-hour period following an injection, then we're required to have one data point per an hour for the -- I mean, now generally speaking, that would be for both offset and injection wells.

However, within these specific orders that were issued to OXY, there is an exemption from that for the offset wells. But instead, OXY is required to estimate to the best of their ability what the production is, but that exemption for the offset wells doesn't apply to the injection wells.

THE WITNESS: Yes. Thank you for that. I'll take a look at it and review it as well. Based off of what you're saying, we can definitely include that data -- one data point per hour for both oil and gas tests after the storage event ends.

THE TECHNICAL EXAMINER MCCLURE: Yeah. Because $I$ was going to say the intent was to most definitely have it continuously be measured following a storage event so we can catch that initial -- the
initial drop down, $I$-- or $I$ think the initial production period directly following it.

THE WITNESS: Correct. Correct.
THE TECHNICAL EXAMINER MCCLURE: Yeah. Okay. Very good. Now, coming down to our next page, page 211, that has the recovery profile of the Avogato 13H.

THE WITNESS: Yes.
THE TECHNICAL EXAMINER MCCLURE: I was going to say it's a little bit difficult to see just from the scaling there and obviously -- yeah. I mean, obviously that's always an issue. But it almost looks like the oil production may be depressed by 10 to 15 barrels per day following the injection event; is that what the actual numbers look like to you?

THE WITNESS: I would have to go back and review it but based off of -- based off of eyeing it here, there is a -- is a difference between those values.

THE TECHNICAL EXAMINER MCCLURE: Yeah. And I guess what my concern here is is by using a GOR based off this oil rate, then do you think that the calculated native production is being also depressed, I guess? Well, let me rephrase that. Let me rephrase that.

What we are considering to be native production, if it's based off the oil rate which is depressed from what the well would normally be making, then that would mean that what we're calculating as native is also depressed. And I don't know if that would be an accurate -- if it accurately -- if it actually is being depressed considering the oil is. But my concern, of course, would be that maybe we're miscalculating our native production versus recovered production. I guess what -- do you have any thoughts towards what $I$ was just saying there?

THE WITNESS: Yes. I'm -- I'm taking that in.

THE TECHNICAL EXAMINER MCCLURE: Yeah.
THE WITNESS: Speaking to this,
the -- based off the -- the data that we've seen, I don't know if we can make that determination yet as to whether or not the -- the produced native gas is calculated correctly or incorrectly --

THE TECHNICAL EXAMINER MCCLURE: Yeah. And then we're only looking at one versus -- yeah. Go ahead. I'm sorry.

THE WITNESS: So -- so my take on it is possibly. You could possibly be, you know,
overestimating or underestimating in the calculation, but depending upon the engineer you talk to, they could have a different allocation methodology to apply to the situation.

So I -- I don't know enough to answer the -- the -- I don't have enough to answer that question, but it is a -- a good item to discuss and consider for looking at the recovery profile of these wells.

## THE TECHNICAL EXAMINER MCCLURE:

Exactly. What I'm kind of leaning towards is we have a number -- more of these events in which we're going to have to be generating recovery profiles for and when we put together a summary, it's definitely something for both the Division and OXY to consider here.

Something else to throw out is looking at, for instance, the slope of your recovered gas as it approaches 100 percent. I mean, how your table -- how your Excel table is built, it stops computing at 100 percent. But based off this slope, it looks like it would have went beyond 100 percent.

So either we're enhancing productivity and bringing in additional gas or else there's something going on there on the calculation, $I$ guess,
because you can't recover greater than 100 percent of what you put in.

I mean, maybe you're enhancing the oil -- the gas production from the reservoir maybe, but it ain't necessarily -- it wouldn't be recovered gas at that point.

THE WITNESS: I think it has to do with the inputs of the engineer assessment as to, you know, what the GOR is before a storage event versus what it is after to calculate these values. I think -- I think you're going to have some type of -- some type of increasing percentage recovered gas with -- with various methods.

So that is something to look at and consider after we have all of the -- the data put together for the recovery charts of -- of all these wells.

THE TECHNICAL EXAMINER MCCLURE: And there's a possibility we may have to have specific protocols for how we're going to be computing the GOR, I guess, because this is a common theme between pretty much every single project we currently have is along these lines. So it's definitely something to look at very heavily.

> Having said that in context of this
hearing, I don't think we need to do anything different at this particular point. But it's definitely something for us to be very careful of, I guess, moving forward -- might be the way for me to put it.

THE WITNESS: Yeah. And there -- if I may.

THE TECHNICAL EXAMINER MCCLURE: Go ahead.

THE WITNESS: There are various other ways that we could go about calculating the percentage recovered gas. Here is utilizing a GOR methodology. We could go to -- go to a first-in/first-out methodology for recovery. We could probably go down the list to consider some additional recovery calculations to -- to allocate the -- the gas at the end of the day.

THE TECHNICAL EXAMINER MCCLURE: Well, being first-in/first-out would essentially assume 100 percent recovery; correct?

THE WITNESS: Yes, it would.
THE TECHNICAL EXAMINER MCCLURE: Yeah. And I don't know if we got enough data to support that at this point.

THE WITNESS: That's --

THE TECHNICAL EXAMINER MCCLURE:
To -- I mean, which is kind of the reason we're gathering this data, to try to figure out what ultimate recovery is under different conditions. I mean, we already see this correlation between number of days to reach it versus -- I mean, in regard -- correlated to how long injection times are. So clearly there's some more consideration before we can outright make that statement. But regardless, as $I$ say, again, it's a little bit outside the scope of this very specific hearing, I guess. I mean, because we're essentially just authorizing projects to get the data to make that determination is where we're at currently.

THE WITNESS: Of course. I think we -- after reviewing the rest of the data, we can review it, discuss it further and after -- like you're saying, review all the trends in the area and kind of reassess how -- how the -- the calculations are done going forward.

And -- and maybe that correlates or corresponds with the injection pressures for the storage wells. You know, it might be, based on the -- the injection pressure, you might see a certain recovery.

And I'm just -- I'm just talking off the cuff here, but $I$ think there's a lot of possibilities to digest and assess this data after it's -- it's all completed.

THE TECHNICAL EXAMINER MCCLURE: Yeah. Exactly. I was going to say the other -- some of the primary ones I'd be looking at -- I mean, rate and volume and time. Obviously all three of those obviously directly correlate it.

But as to which it would affect more, I would think more along those lines to maybe whether maximum weight makes a difference or total volume or maybe it's a total time thing, I guess, if -- I guess that would be more towards volume. But regardless -- or the combination of those two obviously. But regardless, yeah, I --

THE WITNESS: I think -- if I may, I think that sounds like a great exercise performance, "pop fire." So I like where you're -- you're thinking at the moment.

THE TECHNICAL EXAMINER MCCLURE: Yeah. Okay. Now, I did have one quick question that I missed asking before. Oh, you probably don't know off the top of your head, but if you do know off the top of your head, for this 13H, do you know if there's a
annulus that's not filled with cement?
Is there actually like a void there in order for pressure to build or is there cement to surface? You know off the top of your head?

THE WITNESS: I don't know. I'd have to --

THE TECHNICAL EXAMINER MCCLURE: Okay. No big deal. I was just asking if you happened to know.

THE WITNESS: Sure.
THE TECHNICAL EXAMINER MCCLURE: And I'll say thank you, Mr. Janacek. I think that's all my questions. I think the only thing that $I$ need submitted -- I don't think we need anything on the Harkey Formation. I think that'll be fine.

So I think the only thing we need is if you could just update, if needed, the corrosion prevention plan from the prior case and then just resubmit it as an exhibit for this case or a additional supplemental exhibit, whatever we're calling it.

THE WITNESS: Okay. Yes. We will -- we will get that submitted as a supplemental. Thank you, Examiner McClure.

THE TECHNICAL EXAMINER MCCLURE: Yep.

Thank you. Mr. Brancard, thank you.
THE HEARING EXAMINER: Thank you.
Mr. Garcia, any questions?
THE TECHNICAL EXAMINER GARCIA: No questions.

THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: A couple of quick questions, and maybe more for my own information, Mr. Janacek.

Can you describe contingencies OXY has for an extended storage event? And the second part to that, in the event of an extended storage event, contingencies for prolonged pressures on the formation of the reservoir in that time frame.

THE WITNESS: Sure. I can -- I can definitely speak to that, Examiner. So the first part of your question in regards to contingencies for extended storage events. In those instances, there -- this was a scheduled long storage event. So we were given heads-up about a month before this -- this long storage event was going to take place.

So in preparation, we're able to coordinate a shutdown of the field, coordinate -- bring on storage wells. And so the
contingency here is if we run out of capacity, so to speak, to store gas during that upset, we will start, in a -- in a descending fashion, shutting in production.

So we'll take a look at the whole system, we'll take a look at the producing wells in that system and there's a priority ranking not only for the sequencing of the gas storage wells, but also a corresponding priority for shutting in wells if we have some of these longer upsets. So that's the contingency plan there.

And I'm sorry. What was the second part of your question?

THE TECHNICAL EXAMINER HARRISON:
Second part, in that same fashion, if we are continuing to use storage for prolonged exposure of those increased pressures maybe on the formation of the reservoir.

THE WITNESS: Oh, okay. I hear you. It's a -- it's a valid concern. It's something that we looked at. This gas storage project, because we're utilizing the centralized gas lift compressors that are currently in the system, we are not going to a very high injection pressure.

This maximum surface pressure of 1,300

PSI is -- is well below where we see any type of benefits of like enhanced oil recovery injection or things of that nature.

And then additionally, looking at the maximum allowable surface pressure calculation table, we can see that if we apply that surface pressure -- max surface pressure during gas storage operations plus a hydrostatic column of a gas gradient, we're -- we're well below the -- the calculated parting pressure of those formations.

So in essence, it's a -- it's a -- not a concern because we -- we reach our max surface pressure before we start encroaching into any type of territory that is at or near parting pressure of those formations.

THE TECHNICAL EXAMINER HARRISON: And I think you described earlier at max surface pressure, we would also continue to look to no further increases in limit injection above and beyond that.

THE WITNESS: That's correct. The max -- the maximum allowable surface pressure of these systems -- our -- our compressor shutdowns are at $1,300 \mathrm{PSI}$. So we don't foresee nor are we operationally able to exceed 1,300 PSI with the current set-up of the system.

THE TECHNICAL EXAMINER HARRISON: Okay.
I appreciate that answer and I promise I'm not going to interrupt anymore. Thanks again.

THE WITNESS: Thank you.
THE HEARING EXAMINER: Thank you.

Mr. Rankin, your next witness.
MR. RANKIN: Thank you, Mr. Examiner. Our next witness is Mr. Jared Rountree, a geologist with OXY.

## DIRECT EXAMINATION

BY MR. RANKIN:
Q Morning -- afternoon, Mr. Rountree. Will you please state your full name for the record?

A Jared Rountree.
Q By whom are you employed? In what capacity?
A I'm employed by OXY as a geologist.
Q Have you previously testified before the Division?

A No, I've not.
Q Mr. Rountree, have you prepared a summary of your resume, education and work experience as a petroleum geologist?

A Yes, I have.
Q And has that been marked in Exhibit $B$ that was submitted to the Division?

A Yes.
Q And I'm going to pull it up here so -- in case you forgot what you did. Will you review for the examiners your education and your work experience as a petroleum geologist?

A Yes. I have a bachelor's of science in geology from Oklahoma State University and a master's of science in geology from Colorado School of Mines. I've been employed as a petroleum geologist since 2011. I started my career working for new field exploration working for a -- at a -- in a variety of onshore U.S. basins.

And then in 2019, I moved to XTO Energy where $I$ worked as a development geologist in the New Mexico portion of the Delaware Basin. And then since 2022, I've been employed at OXY as a development geologist working in the New Mexico portion of the Delaware Basin.

Q And have you -- are you familiar with the application that was filed in this case and the geology?

A Yes, I am.
Q And you conducted a study of the lands and the geology at issue?

A Yes.

MR. RANKIN: Mr. Examiner, at this time, I would tender Mr. Rountree as an expert in petroleum geology before the Division.

THE HEARING EXAMINER: Hearing no objections, so accepted.

MR. RANKIN: Thank you.
BY MR. RANKIN:
Q Now, Mr. Rountree, you've prepared a set of slides outlining your analysis of the geology and the proposed addition of these additional intervals within the Bone Spring?

A Yes.
Q And I'm going to start off -- I guess your first slide, $I$ think, was a type log, but you've provided a slight update to that in your Exhibit B; is that right?

A Yes, that's correct.
Q So that -- and that's that page -- I believe it's page 213 of the exhibit packet, you've got an updated type log.

A Yes.
Q Just review what the update was and explain -- walk through the type log here showing what you've got outlined here and if you would just kind of give us a general overview of the geology in the area.

A Yeah. So the update -- the main update on here was just a slight labeling change. One of the -- the wells was mislabeled and that was corrected on this -- on this type log.

So the -- the type log that I'm showing here
is from the -- the project area. The logs that I'm showing are a triple -- standard triple combo log suite with gamma-ray on the left track, resistivity in the center track and density and neutron porosity in the -- the right track.

What I'm showing on that log are the specific intervals that have current injection into the -- into them and then also the intervals that we are requesting to inject into with these future wells and then which specific wells would fall into each of those intervals.

And then on the left, the text, I'm just kind of -- I'm going through and describing each -- each of the intervals. So -- and then which wells inject into those.

So the Avalon Shale is the first formation that I'll talk about. The wells that would be injecting -- the new wells that would be injecting into that would be the Avogato 12 H and the Red Tank 14H. The reservoir here is comprised of solicitous
mudstones with low natural permeability in the nanodarcy range.

The confining layers above and below this, there's -- the Avalon here is overlain by about 300 feet of low porosity imperm limestones and underlain by about 250 feet of interbedded low porosity imperm limestone and shales.

The next interval that would be the First Bone Spring Formation. The well that would be injecting into that would be the Avogato 4H. Here, the First Bone Spring reservoir is comprised of low porosity imperm sands and shales.

Over -- the confining layers overlying this is about 250 feet of interbedded low perm limestones and shales and it's underlain by about 450 feet of low porosity impermeability limestone.

The next formation -- the next interval would be the Second Bone Spring. So the wells that would be injecting into this interval would be the Avogato 21H, 22H, 23H, 24H, 25H, the Red Tank 24 Y and the Taco Cat 21H. This reservoir also described as being comprised of low porosity siltstones and sandstones.

In terms of confining layers, it's overlain by about 450 feet of low perm limes and underlying it
are about 150 feet of low permeability limestone.
And then the final interval is the Third Bone Lime. The question came up about the Harkey Formation and that's kind of internal OXY kind of jargon or -- or naming, but we are -- the Harkey would be kind of synonymous in -- in what we're talking about here in the -- in the Third Bone Lime, which would be underneath the second sand.

And so the well that would be injecting into the Third Bone Lime would be the Avogato 74H. Here, this reservoir is comprised of, you know, relatively low porosity imperm interbedded silt shales and limestones.

Overlying this interval is about 150 feet of low perm limestones and underneath this interval is 200 feet of low porosity impermeability shales and limestones.

Q So the rest of your analysis jumps back to Exhibit $A$, and I'm going to jump over to that now. It starts at page 103 of the exhibit packet. This starts -- picks up your cross-section maps. Mr. Rountree, if you would just kind of overview what this next series of slides shows and walk through your analysis from here.

A Okay. So this slide, it's a locator map
showing the location of the -- of the -- the two project areas that are highlighted by the blue boxes and then the -- the location of the cross-section wells that are going to be shown on the next couple of -- next couple of slides.

So I have a couple of cross-sections here broken up by interval. So the first cross-section which is on this slide is showing the Second Bone -- is -- sorry -- is showing the Avalon and First Bone Spring intervals. The cross-section log display is using the same log display as on the type -- as the type log slide, a standard triple combo.

And really what we're trying to show here are the -- the intervals for these wells that we're proposing to inject into and then on the right side of the cross-section, we're pointing out the -- the approximate location within the -- within that interval of those wells that we're requesting to inject into.

The next cross-section here is showing the Second Bone Spring and the Third Bone Spring Lime intervals. Same -- same layout. Same -- the same log layout.

And then as on the last slide, we're showing on the sides of the cross-sections on the left side
the Taco Cat well that would be injecting into the -- the second sand and then on the right, the Avogato wells -- the Avogato and Red Tank wells that would be injecting into the second sand and the -- and the third lime.

This next slide is a SEPC TBD structure map on top of the Avalon Formation. This map, while on the Avalon, is the -- the structure here is representative of the structure for all the intervals that we're discussing today.

The main takeaway from this map is we're seeing the -- the formation is dipping to the -- to the east/southeast and there's no identified faults going through this interval.

The next -- next series of maps are a series of isopach maps. So this first one is an isopach map, so total thickness of the -- the Avalon, and in -- in this project area, the Avalon total thickness is ranging from 800 to 850 feet thick.

The next one is the First Bone Spring isopach map. So in this project area, the First Bone Spring ranges from 225 to 300 feet thick. The Second Bone Spring -- so in this project area, the Second Bone Spring Formation ranges anywhere from 400 to 500 feet total thickness.

And then finally, the Third Bone Spring Lime -- over the project area, the Third Bone Spring Lime ranges from 700 to 725 feet in total thickness.

The next few slides are a series of geologic statements that I put together. I'll -- I'll walk you kind of briefly through this first one. I did one for each of the formations.

So this is one that I put together for the -- for the Avalon Formation. At -- at the beginning of the statement, I describe things such as the approximate depth of the -- the interval, basic reservoir properties and the faces that the -- that comprise the formation here.

Further down, I talk about the -- the low permeability confining barriers and how they serve as a barrier to flow, keeping the injected gas within the target formation that we're injecting into.

Then $I$ discuss below that about the additional confining layers that are above the overall Bone Spring Formation and how they are significant barriers between the Bone Spring and the nearest known freshwater aquifers and how, because of those barriers, injected gas will not come in contact with any of those freshwater aquifers.

And then finally at the -- the last part of
the statement, I state that I didn't identify any freshwater wells within 2 miles of these proposed injectors and then $I$-- on each of these, I labeled the -- the wells -- the well names that were within that formation.

Q You prepared a statement for -- similar to this for each of the injection zones within the Bone Spring?

A Yes. So this next one, I -- it was the exact same format but for the First Bone Spring Formation and then the same for the Second Bone Spring and then for the Third Bone Spring Lime.

Q And before I leave this, I guess, Mr. Rountree, just to confirm. Based on your assessment then on the geology in the area and the confining layers above and below the injection intervals, is it your opinion that OXY's proposed operation of these wells as injection wells, that the geology will confine the gas within the injection intervals?

A Yes, that is correct.
Q And that there won't be any adverse impacts to fresh water sources or offsetting oil or gas production zones?

A Yes, that's correct.

Q Okay. And what's this last statement here in your exhibit packet?

A And this last is a signed statement just saying that based on, you know, the geologic data that I reviewed, $I$ found no evidence of faulting or any other connection between the injection intervals and any known source of drinking water.

Q And, Mr. Rountree, you reviewed this project here, but another geologist testified for OXY previously in the initial application. Did you also review the geology in the testimony from that original application and presentation to the Division?

A Yes, I did. I reviewed all -- all of that work and the -- the testimony of the previous geologist.

Q And all that aligns with what you're saying here today? Any disagreement with what you previously -- what OXY previously presented?

A No. Both of our analyzes and -- and our testimony are -- are very much in agreement.

Q Good. And then, Mr. Rountree, in your opinion will the granting of this application be in the best interest of protection of correlative rights and will it prevent waste?

A Yes.

MR. RANKIN: Thank you. Mr. Examiner, no further questions of Mr. Rountree and we'll pass him for any questions by the Division examiners.

THE HEARING EXAMINER: Thank you. Mr. McClure, any questions? Mr. McClure, you're muted. So ...

THE TECHNICAL EXAMINER MCCLURE: Sorry about that. Mr. Brancard, I don't have any questions.

THE HEARING EXAMINER: Thank you.
Mr. Garcia?
THE TECHNICAL EXAMINER GARCIA: I don't have no questions.

THE HEARING EXAMINER: Mr. Harrison?
THE TECHNICAL EXAMINER HARRISON: No further questions.

THE HEARING EXAMINER: Thank you. All right. Mr. Rankin, did you have other witnesses or --

MR. RANKIN: Well, Mr. Examiner, just last bit. We have an affidavit to present -- or rather a self-affirmed statement of OXY's reservoir engineer who's unavailable today. So I would like to just present that and move that into admission.

And if the Division happens to have any questions, perhaps Mr. Janacek can answer them and if not, if there's something that he can't answer or
address, then we would propose to provide a supplemental statement addressing any questions that we can't address.

THE HEARING EXAMINER: All right.
MR. RANKIN: Mr. Examiner, marked as
Exhibit $C$ in the exhibit packet that we presented -- which I will get to that page in a moment and tell you where it is.

THE HEARING EXAMINER: I'm seeing page 214 of --

MR. RANKIN: That's it. Yep. Page 214. And I'll go ahead -- if you all have it in front of you, I won't bother to share my screen.

Essentially, OXY's reservoir engineer, Ms. Schwing Juh [ph], previously testified in this -- in a previous case proving this injection. She has undertaken a study of the requests to increase the project area, add these additional wells and to increase the injection pressures.

And she -- as you'll read through this, you'll see that she has undertaken that -- the consideration and study and has confirmed that in her opinion, that there's no -- number one, that there's adequate volumes to receive the has within the formation and the fracture networks.

Number two, that increasing the injection pressure from 1,200 to 1,300 will have no adverse effects and that -- it just confirms essentially the model that they have to-date.

In her affidavit, she refers to exhibits that are included within the application, Exhibit A, and then also she's prepared some additional exhibits which are attached to her self-affirmed statement as Exhibit C1.

And if -- you'll see if you scroll down to those exhibits after her signature, she evaluates the effect of the increased pressure and -- relative to the model and shows that there's no impact -- no adverse impact as a result of the increased pressure and will benefit -- and that the project will benefit from being able to increase slightly at a higher rate as a result.

So with that -- and then finally, I guess, Mr. Examiner, if $I$ might just proceed to the notice and then if you have any questions about either notice or the reservoir engineer's affidavit, we can address those. But the last two exhibits I'd like to move the admission of are Exhibits $D$ and E.

And Exhibit D is an affidavit that was prepared by me reflecting that we provided notice to
each of the parties affected by the application under the Division's guidance as identified by OXY, including those additional parties that OXY has identified to us, and that we did so by certified mail.

And then also published notice in a newspaper within the county identifying each of those parties by name and caused that to be published, and that's attached as Exhibit E. So you'll see my Exhibit D is the affidavit prepared by me. Exhibit -- attached to that is the notice letter reflecting that we provided notice of the application on March 17th.

And then following that is the status of all the certified mails that went out to each of the affected parties and the additional parties that OXY chose to notice and the status of those mailings. Finally, Exhibit E is that affidavit of publication reflecting that we did do a notice in the newspaper.

With that, Mr. Examiner, I would move the admission of Exhibit $C$, the attachments and Exhibit $D$ and E as well.
(OXY USA Inc. Exhibit C, Exhibit D, and Exhibit E were marked for identification.)

THE HEARING EXAMINER: Thank you. And hearing no objections, Exhibits C, D and E are admitted into the record.
(OXY USA Inc. Exhibit C, Exhibit D, and Exhibit E were received into evidence.) MR. RANKIN: And I guess, Mr. Examiner, if there's any questions with respect to the reservoir engineering analysis, if Mr. Janacek can answer them, happy to have him do so. And if not, we can provide supplement, or if you have any questions about the notice as well.

THE HEARING EXAMINER: Thank you. Let me go to Mr. McClure. Any questions about either the reservoir engineering or the notice?

THE TECHNICAL EXAMINER MCCLURE: Maybe I have just one quick question, Mr. Brancard.

THE HEARING EXAMINER: Go ahead.
THE TECHNICAL EXAMINER MCCLURE:
Mr. Janacek, if you know the answer to this, did your guys' reservoir engineer have a -- did she identify a reason for why your actual field test was showing like 4,000 -- I mean, an injection rate of 4 million versus the predicted 3 million for like Taco Cat 11H?

THE WITNESS: No, we didn't discuss that with -- with her.

THE TECHNICAL EXAMINER MCCLURE: I was going to say the only -- I guess for some context, the reason I'm wondering is based off the geology, we're not necessarily -- or we're not seeing any reason to believe there's faulting here.

But that would be the only concern I'd have is if we thought -- is something we laid it towards something in the reservoir that's causing that increase or if the model is obviously -- I mean, it's hard to get a precise predictive model, I guess.

And whether we thought maybe there's just some adjustment there that was specific to this well that isn't necessarily reservoir-wide, which the model is based upon. You're not aware of -- I guess -- from the sounds of it, you haven't spoke to her, so you're not aware of any of this then; is that kind of correct?

THE WITNESS: No, nothing that I'm aware of. And again, which -- what are you referring to? What data are you referencing?

THE TECHNICAL EXAMINER MCCLURE: I apologize. Slide 219 of 227.

THE WITNESS: 219?
THE TECHNICAL EXAMINER MCCLURE: Yeah. THE WITNESS: Okay.

THE TECHNICAL EXAMINER MCCLURE: On that slide, there's a reservoir model comparison where it looks like OXY's comparing actual injection rates versus what the model had predicted.

THE WITNESS: Mm-hm.
THE TECHNICAL EXAMINER MCCLURE: And it
may be as simple as the fact that we know that like the different injection pressures that each well is requiring -- it may just be some discrepancy there.

Because there's a broad range there and obviously if the model is created for this entire area, there's going to be some discrepancy between the model and those results. I just don't know if that's kind of what we're seeing here or if we think there could be more connectivity between here and further out into the reservoir than what we're predicting.

THE WITNESS: Good -- good question. I think -- I think what the -- the model is showing is -- is a very general scenario of injection for these type of reservoirs and probably where we're seeing differences for all of these wells could be from any type of input.

It could be geologic. It could be completion methodology. It could be the point in time at -- at which this well is at in its production life.

So I don't know specifically why there's a difference, but there could be multiple reasons there.

THE TECHNICAL EXAMINER MCCLURE: Okay. I guess to give you a little further context, I don't see where it's included in OXY's exhibits for this case and I don't recall if it's for -- in the exhibits for originally $R-22101$, but there was a model that was ran to determine effects on offset wells.

I'm trying to remember exactly how it was titled, but essentially, there was a model predicting at what point we would actually start seeing an effect on a well so far away. I'm thinking maybe the only thing that kept -- that is still existing in this -- in these exhibit packets from that, as $I$ recall, is $I$ think there's some table that talks about like the spacing of wells.

Maybe there's something -- maybe I think some of that information might have made it in there. But my overall question is $I$ just wasn't sure if -- well, $I$ guess my first question is are you familiar with what I'm referring to, that model?

THE WITNESS: I'm sorry. Could you restate your question, please?

THE TECHNICAL EXAMINER MCCLURE: Okay. I don't have it directly in front of me, but if my
memory is correct, it seems like there was a model that was ran to predict effects on offset wells.

THE WITNESS: Right. Correct.
THE TECHNICAL EXAMINER MCCLURE: I'm trying to remember exactly what it was based upon. Like it was based on maybe a real study that OXY had conducted. I don't remember the circumstances behind that study. But you're familiar with what I'm referring to then; correct?

THE WITNESS: Yes. I -- I know what you're referring to now. So --

THE TECHNICAL EXAMINER MCCLURE: Okay. Okay. And I was wondering is -- was this -- is this additional injection rates that we're seeing above what the model's predicting -- are we thinking that that would affect that model, and to a significant degree where we would actually see something occurring within two weeks or something of injection?

THE WITNESS: Good question. To answer that no, I don't think this increased injection rate for this short period of injection of three -- three days is going to impact the -- the outcome of the model.

To refresh -- to -- to kind of refresh everyone as to how the model was set up that we
presented in 2021, the reservoir modeling that was done by the reservoir engineering team was based off of a much longer and -- and a much longer EOR gas injection project that was done in Cedar Canyon, so a different area of ours.

And with that, we were able to, you know, put together the model and see what -- if we were to do a different type of injection at a lower injection pressure and a shorter period of time, what the model will show as results. So that was presented in 2021 by Schwing [ph], our -- our reservoir engineer.

Here, looking at this data, it is my understanding that these small injection rate differentials for these short periods of time are not going to make us revisit the reservoir model.

Compared to the injection volumes that were taken into consideration for building the initial model, these storage volumes and rates are a lot lower and a lot smaller. So $I$ guess in essence, my answer is these small differentials in the injection rates will not -- will probably not impact any type of revisions for the -- the reservoir model.

THE TECHNICAL EXAMINER MCCLURE: Okay. Now, just to clarify, you mentioned the increased
rates over the first few days. It looks like we're looking at like approximately -- for the Taco Cat 11H, you're looking at like just shifting the entire curve up by, say, 20 percent, around about.

Understanding that in terms of
magnitude for what the original study was based off, maybe that's a small amount, but for this particular instance, we're looking at 20 percent based off what this model was predicting for injection rates.

And maybe I am misremembering. I had thought that OXY had used the model built from the Cedar Canyon project, but had used their injection rates predicted for these wells to determine how long it would take to cause a change in offset production if $I$ recall correctly.

And it seems like the result was in the months essentially rather than weeks, if $I$ recall correctly. So while I -- I'm sort of on the same page. I just want to clarify. You are taking into account an increase of, say, 20 percent for the entirety of the injection period, not just the first few days; correct?

THE WITNESS: So for this instance, that's all the data we have is for a three-day period. You know, if we had -- if we had a longer storage
event, maybe it would -- we would see that it maintains a higher delta of 20 percent upwards, but -- and that's what it looks like based off of this very limited data that we're seeing.

But I don't know if -- if I would speculate and say that that would -- would be maintained. So I don't -- I don't know enough at this time to -- to say that that would be maintained.

THE TECHNICAL EXAMINER MCCLURE: Okay. I guess my question is -- I'm not necessarily asking if it would be maintained or not. My question is if it was maintained, do you still believe that a two-week injection period would not be enough to change the outcome of that original model?

And if we're not sure, we can always have a supplemental statement from you guys' reservoir team, too, But if you have a pretty good idea, then go ahead.

THE WITNESS: I'm sorry. Could you restate the question?

THE TECHNICAL EXAMINER MCCLURE: Okay. If the 20 percent increase was maintained -- let's just say worst case scenario, it is maintained. Do you believe that that is enough of a change to affect it the computed time in which offset production may be
affected significantly enough to matter in durations of injection of, say, two weeks?

THE WITNESS: Yeah, I don't know the answer to that one, Dean. So we can get with our reservoir engineering team and -- and file a supplemental document to answer and address your -- your question.

THE TECHNICAL EXAMINER MCCLURE: Okay. And it could be real simple. We don't need to necessarily like actually show us another graph or not. I just want confirmation that OXY is considering it and that we're not going to see any reason to suspect affecting offset production, I guess if that makes sense.

THE WITNESS: Yeah. Okay. I hear you there.

THE TECHNICAL EXAMINER MCCLURE: Okay. Thank you, Mr. Janacek. Thank you, Mr. Brancard. That was all I had.

THE HEARING EXAMINER: Thank you.
Mr. Garcia?
THE TECHNICAL EXAMINER GARCIA: No questions.

THE HEARING EXAMINER: Mr. Harrison? THE TECHNICAL EXAMINER HARRISON: No
questions.
THE HEARING EXAMINER: Thank you.
Mr. Rankin, my only question is $I$ wonder if you could just -- you've probably already done this. Just sort of explain how you came up with the names for your notice.

MR. RANKIN: Oh, I'm sorry. Now I know what you're saying. Like you mean the particular individuals or -- yeah. I wasn't quite tracking you there for a moment. It's 4:40.

So yes. Mr. Janacek did testify previously that he identified the affected parties requiring notice under the Division's guidance by identifying the surface owners and offsetting affected parties based on the affected party rule under the Division's regulations.

So those were identified in his notice exhibit, which is located at the end of Exhibit A, and I'll tell you what page that is on. Starting on page -- I'm almost there -- 134, and it goes all the way down to 141.

And based on those offset maps, it identifies the operators -- Division designated operators and then any other affected parties based on the affected party rule and has a list of all those
parties identified in the list following the maps. So then they -- there were others -- the additional parties based the royalty owners and the other owners of interests within the gas that is being -- source wells is -- are based on OXY's own ownership decks within those offsetting -- within the source gas wells.

THE HEARING EXAMINER: Okay. Thank you.

MR. RANKIN: Yeah.
THE HEARING EXAMINER: Do you have anything further, Mr. Rankin?

MR. RANKIN: Mr. Examiner, nothing further at this time. We appreciate the Division's attention and consideration of OXY's request to try to, I guess within some relative time frame, be able to provide an order amending the order so they can proceed with these additional injection wells.

And so at this point, nothing further and we appreciate the Division's attention and ask that the case be taken under advisement.

THE HEARING EXAMINER: Thank you. And just to summarize -- I believe you've already done this -- you want to -- an amendment to order R-22101; right? You want to dismiss $R-22102$ or vacate it,
whatever, and your amendments would be to expand the acreage, to add the wells you have listed and extend the project time.

MR. RANKIN: And to increase the injection pressures from 1,200 to 1,300.

THE HEARING EXAMINER: Okay.
MR. RANKIN: That's correct. And I think in terms of what we owe you, we will provide an -- the -- an exhibit outlining the corrosion prevention plan as a extra exhibit.

As well as a statement from OXY's reservoir engineer identifying -- responding to Mr. McClure's questions about whether and how OXY is considering the potential impact of longer term injection at a higher rate -- potentially a higher rate than the model shows and whether they are considering how that may impact offsetting wells in production.

THE HEARING EXAMINER: Is there anything else, Mr. McClure, that we needed?

THE TECHNICAL EXAMINER MCCLURE: No, I think Mr. Rankin got it. Yep.

THE HEARING EXAMINER: Thank you. All
right. Anyone else here with comments on case 23427? Hearing none, any exhibits we haven't already
admitted, we will admit into the evidence and the case
will be taken under advisement.
MR. RANKIN: Thank you, everybody.
Have a great day.

THE HEARING EXAMINER: Thank you.
UNIDENTIFIED SPEAKER 2: Thank you.
THE HEARING EXAMINER: And I believe we are done for Thursday, April 6, 2023. Thank you, everyone.
(Whereupon, at 6:45 p.m., the
proceeding was concluded.)

I, DANA FULTON, the officer before whom the foregoing proceedings were taken, do hereby certify that any witness(es) 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 FULTON
Notary Public in and for the State of New Mexico
CERTIFICATE OF TRANSCRIBER
I, KEARA CONTARTESI, 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 1 am neither counsel for, related to,
nor employed by any of the parties to the action in
which this was taken; and, further, that 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.
KEARA conTARTESI
[\& - 130/132]

| \& | 163:19 164:22 | 159:18 272:13 | 11-14 78:2 |
| :---: | :---: | :---: | :---: |
| \& 22:11 23:1,6 | 165:1,6 166:22 | $\mathbf{1 0 , 0 0 0} 75: 9,17$ | 112/116 14:21 |
| 25:14 26:11 | 166:23 167:18 | 75:21 | 14:22 |
| 33:2,14 36:9 | 167:21 168:2 | $\mathbf{1 0 , 9 6 0} \quad 217: 24$ | 113h 128:25 |
| 38:12 66:21 | 169:24 170:15 | 100 74:17 | 114 82:4 |
| 77:14 80:16 | 171:19 174:20 | 171:18 188:11 | 114h 81:6,24 |
| 85:17 97:1 | 175:11 177:7,9 | 228:15 258:21 | 82:4 129:4 |
| 103:9 117:9 | 179:23 180:25 | 264:6,7 274:19 | 11:20 149:9 |
| 127:2 158:6,7 | 182:13,15 | 274:21,22 | 11h 216:3 |
| 158:9 164:7 | 184:5 191:9 | 275:1 276:19 | 217:8 220:15 |
| 184:15 | 193:2,7 195:23 | 100/102 14:3,4 | 248:7 269:23 |
| 0 | 201:20 | 14:5,6,7,8 | 269:25 270:2 |
| 0 258:12 | 75:17,21 | 100/300 75:6 | 298:23 304:2 |
| 0.2 231:11 | 1200 206 | 101h $118 \cdot 14$ | $202 \cdot 8$ |
| 025g 127:17 | 210:11 228:13 | 102h 118:15 | 12,120 193:11 |
| 04 128:25 | 296:2 309:5 | 102s 46:4,8 | 12,500 75:22 |
| 129:3 | 1,250 75:22 | 98:18 162:22 | 122/126 15:4,6 |
| 06s233516m | 1,279 131:10 | 103 288:20 | 15:8 |
| 127:17 | 1,279.16 6:2 | 10385 7:17 | 123h 128:5 |
| 07-23 1:7 | 133:3 | 186:12 187:5 | 129:8 |
| 09-23s 128:25 | 1,300 206:11 | 189:4 | 124h 81:19 |
| 129:3 | 210:11 228:13 | 103h 118:15 | 111:12 128:12 |
| 1 | 228:21 230:2 | 104h 118:15 | 129:10 |
| 1 2:5 11:5 | 232:4 281:25 | 105/109 14:13 | 128 144:23 |
| 16:17 17:3,13 | 282:23,24 | 14:15,16 | 145:5 |
| 18:3,13 19:3 | 296:2 309:5 | 11 41:9 77:25 | 12a4 200:21 |
| 34:11 44:9,11 | 1,800 27:14 | 111:4 150:4 | 12h 286:24 |
| 47:21 49:5 | 28:17 | 171:12 175:1 | 13 103:24 |
| 53:21 87:7,22 | 1,920 58:22 | 206:7 210:3,6 | 221:22 248:13 |
| 150:13 152:1,7 | 59:7,17 67:17 | 211:16,20 | 249:22 269:22 |
| 153:6 154:11 | 67:22 | 216:16 221:22 | 130/132 15:13 |
| 155:21 156:5 | 10 32:22 62:10 | 223:16 230:7 | 15:14,15,16,18 |
| 157:19 159:24 | 82:24 103:24 | 246:24 249:22 | 15:20 |
| 160:3 162:2,11 | 104:4,9 138:12 | 264:3 |  |


| 131 245:9 | 154 263:22 | 182 111:3 | 165:7,16 |
| :---: | :---: | :---: | :---: |
| 133h 111:12 | 156/157 17:4,5 | 182/184 19:4,5 | 167:17,20 |
| 134 243:14 | 17:6,7,8 | 19:6,7,8 | 168:3 171:20 |
| 307:20 | 15h 78:3 | 184 233:17 | 175:12 181:1 |
| 134h 81:7 82:2 | 15th 70:6,9 | 185 242:7,13 | 237:9,16 |
| 111:13 | 16 60:4 127:19 | 18th 24:11 30:4 | 238:15,23 |
| 136 131:16 | 128:3,11 | 31:4,15 32:12 | 256:9 257:24 |
| 139 244:10 | 203:14 | 32:18 | 292:2 310:6 |
| 13h 217:8 | 162 36:23 | 19 50:20 51:2 | 20 35:18 52:22 |
| 251:13,20 | 162/163 17:14 | 51:11 111:9 | 150:10 179:18 |
| 270:15 272:7 | 17:15,16,17,18 | 118:13 150:9 | 180:12,12 |
| 278:25 | 163 36:23 | 164:22 167:18 | 304:4,8,20 |
| 13th 124:25 | 164 36:23 | 222:4,5 | 305:2,22 |
| 14 77:25 81:3,6 | 1652 203:11,13 | 19.15.16.15b5 | 200 74:12,17,19 |
| 83:1 171:11 | 166/170 18:4,5 | 51:18 | 288:16 |
| 174:25 221:22 | 18:6,7,8 | 19.15.20 202:6 | 2011 284:10 |
| 249:23 | 16h 78:3 | 19.15.20.12 | 2014 68:22 |
| 14-24s 81:19 | 16th 40:13 | 191:16 | 71:3,4 |
| 141 307:21 | 17 32:22 53:21 | 19.15.4 200:20 | 2017 61:19 |
| 141/148 16:3,4 | 89:12,14 | 19.15.4.12a4. | 68:21,22 |
| 16:6,8,9,11,12 | 130:13 | 200:19 | 2019 284:13 |
| 143 213:18 | 171 224:6 | 194/205 19:13 | 2021 45:4 |
| 145 215:6,8,14 | 172 227:7 | 19:14,15 | 219:17,18 |
| 146 215:9 | 173 229:14 | 1960 204:3,12 | 222:9 239:7 |
| 14h 217:8 | 174 233:13 | 1962 193:10 | 303:1,11 |
| 251:14 269:22 | 177/179 18:14 | 1h 86:25 87:1,7 | 2022 111:4 |
| 286:25 | 18:15,16,17,18 | 2 | 150:8 268:20 |
| 15 81:3 104:3 | 17h 78:3 | 2 11:6 16:19 | 284:16 |
| 105:6 159:18 | 17th 140:18 | 17:5,15 18:5 | 2023 8:14 21:3 |
| 272:13 | 297:13 | 18:15 19:5 | 52:22 62:10 |
| 15-24s 81:6 | 18 36:1 41:10 | $42: 23 \text { 75:21,22 }$ | 82:24 83:1 |
| 150 224:6 | 41:11 150:5 | 150:5,14 | 88:1,12 89:12 |
| 264:7 288:1,14 | 178:19 191:11 | $154: 12,18$ | 89:14 105:6 |
| 152/153 16:18 | 18.5 247:2 | 160:4,24 | 130:13,15 |
| 16:19,20,21 |  | $160.4,24$ $164: 21,25$ | 149:12 167:3 |

Page 2

| 192:21 216:5 | 22 38:5 60:3 | 22181 111:2 | 23254 11:13 |
| :---: | :---: | :---: | :---: |
| 216:13 239:8 | 67:24 86:19,24 | 22198 4:2 | 48:16 50:1,16 |
| 251:21 257:24 | 87:5,20 154:6 | 77:22 | 50:22 51:23 |
| 267:3 310:8 | 211:2,5 270:20 | 221h 51:14 | 52:25 57:1 |
| 2024 79:2 | 22/21 86:25 | 2227 157:10 | 23254-23255 |
| 203h 111:13 | 87:1,6,7 | 22296 183:9 | 3:11 |
| 207 246:9,9 | 22069 6:9 | 22297 183:9 | $2325511: 13$ |
| 268:18 | 150:2 | 222h 51:14 | 48:16 50:1,16 |
| 208 10:4 | 22083 22:5 | 223h 51:4 | 51:6,23 52:25 |
| 20th 35:5 37:24 | 23:7 | 22423 11:3 | 57:2 |
| 40:14 41:2 | 22083-22084 | 38:6,15 48:1 | 232h 51:15 |
| 44:3,8 48:7 | 1:22 | 22423-22426 | 23303 12:2 |
| 86:12 88:13 | 22084 22:5 | 3:6 | 57:14,25 58:14 |
| 95:16,22 | 23:7 | 22424 11:3 | 58:19 60:25 |
| 125:13 153:10 | 22101 8:2 | 38:6 | 66:3 |
| 157:17 158:20 | 206:4,13,16 | 22425 11:3 | 23303-23304 |
| 159:1 162:7 | 209:24 210:14 | 38:6 | 3:17 |
| 170:13 173:10 | 210:19 218:15 | 22426 11:4 | $2330412: 2$ |
| 174:21 184:2 | 301:7 308:24 | 38:6 48:12 | 57:14,25 58:14 |
| 21 36:2 86:24 | 22102 8:10 | 224h 51:4 | 59:14 60:10,15 |
| 87:5 130:15 | 206:21,22 | 225 290:22 | 60:23,25 61:9 |
| 180:11 223:20 | 218:16,18 | 227 212:23 | 63:2 66:3 |
| 223:20 | 308:25 | 268:18 299:22 | 23348 3:21 |
| 210 270:15 | 22103 22:5 | 22751 77:21 | 12:11 66:12 |
| 211 272:6 | 22103-22104 | 22782 7:8 | 67:13 68:8 |
| 213 285:19 | 1:17 | 184:11,24 | 72:776:17 |
| 214 295:10,12 | 22104 22:5 | 22812 111:2 | 23367 4:8 13:2 |
| 21683 1:12 | 22161 36:2,23 | 22h 287:20 | 80:13,19,22 |
| 22:4 | 22161-22164 | 23 127:22 | 83:4 84:23 |
| 21685 1:12 | 3:2 | 154:6 159:18 | 95:12 |
| 22:4 | 22162 36:2 | 270:20 | 23379 4:2 |
| 219 299:22,23 | 22163 36:2 | 23042 2:2 | 12:19 77:10,17 |
| 21h 216:6,9 | 22164 36:2 | 25:10 26:3 | 77:20 79:15 |
| 287:20,21 | $\mathbf{2 2 1 7 9}_{111: 2} 5: 8$ | 231h 51:14 | 80:4 |


| 23380 151:5 | 23407 153:17 | 23422 14:20 | 177:21 179:16 |
| :---: | :---: | :---: | :---: |
| 23393 7:21 | 158:3,14 | 110:1,24 | 23445-23446 |
| 19:12 190:18 | 23409 6:16 | 111:22 112:13 | 6:22 |
| 190:22 191:5 | 17:12 159:7,12 | 114:23 116:11 | 23446 18:12 |
| 192:16 205:4,6 | 163:11 | 23423 14:20 | 170:24 171:4 |
| 23397 13:14 | 23413 5:2 | 110:1,24 | 174:23 177:24 |
| 85:13,21 86:21 | 14:12 103:2,18 | 111:22 112:13 | 179:16 |
| 89:18 90:7,14 | 103:21 105:9 | 114:4 116:11 | 23447 7:2 19:2 |
| 90:16 91:21,25 | 108:11 109:16 | 116:14 | 180:3,8 183:24 |
| 95:15,21 96:5 | 23417 15:12 | 23424 5:12 | 183:25 |
| 23397-23398 | 126:23 127:5 | 15:2 116:23 | 23448 32:23 |
| 4:15 | 127:24 128:24 | 117:15 126:11 | 33:17 35:17 |
| 23398 13:14 | 129:7 130:18 | 126:15,16 | 23448-23455 |
| 85:13,20,21,24 | 132:3 | 23425 2:10 | 2:22 |
| 87:2 89:19 | 23417-23418 | 26:8,24 31:14 | 23449 32:23 |
| 91:21,24 95:15 | 5:17 | 23426 2:15 | 23450 32:23 |
| 95:21 | 23418 15:12 | 31:18 32:2 | 23451 32:23 |
| 23399 85:21 | 126:23 127:5 | 23427 8:2 20:2 | 23452 32:23 |
| 233h 51:4 | 128:6 129:3 | 205:18,24 | 23453 32:23 |
| 23403 14:2 | 130:19 132:3 | 309:24 | 23454 32:23 |
| 96:21 97:10,12 | 23419 18:2 | 23428 16:2 | 23455 32:24 |
| 99:23 102:14 | 164:1,11 167:5 | 132:11,25 | 33:18 |
| 23403-23404 | 167:11 | 133:5,12 | 234h 51:5 |
| 4:19 | 23419-23420 | 148:11 186:2 | 23h 287:20 |
| 23404 14:2 | 6:13 | 23428-23429 | 23rd 70:7,9 |
| 97:9,10,13 | 23420 18:2 | 6:2 | 24 81:4 154:6 |
| 99:23 102:14 | 164:1,11 167:9 | 23429 16:2 | 191:11 228:24 |
| 23405 6:8 | 167:11 | 132:11,25 | 256:3,4,5 |
| 16:16 149:13 | 23421 14:20 | 133:6,14 | 270:23 271:7 |
| 149:17 153:1,2 | 109:25 110:21 | 139:13 148:11 | 240 97:15 |
| 23406 17:2 | 110:24 111:22 | 23438 7:16 | 24h 216:10 |
| 153:17,24 | 112:13 116:11 | 185:21 190:14 | 287:20 |
| 154:1,2 157:15 | 23421-23423 | 190:16 | 24th 125:3,6 |
| $\begin{gathered} \text { 23406-23407 } \\ 6: 12 \end{gathered}$ | 5:6 | $\begin{array}{\|rr\|} \hline 23445 & 18: 12 \\ 170: 24 & 171: 3 \end{array}$ | 24y 287:20 |


| 25 38:5 53:22 | 3 | 33 58:16,23 | 97:19 127:16 |
| :---: | :---: | :---: | :---: |
| 58:17,23 59:12 | 3 11:7 16:20 | 59:11,18,25 | 128:2,9 133:13 |
| 59:19 77:25 | - 17:6,16 18:6 | 67:24 85:13 | 133:16 150:25 |
| 79:2 118:14 | 18.16 19.6 | 97:19 211:5 | 152:1,8 153:7 |
| 225:10 | $42 \cdot 14,2160 \cdot 1$ | 223:21 | 155:10 169:8 |
| 250 287:6,14 | 63:17 68:2,3,3 | 33/18 97:16 | 174:3 176:22 |
| 25h 287:20 | 75:15 76:15 | 330 27:11 | 182:3 298:22 |
| 26 48:16 58:17 | 150:24 155:3 | 59:10 104:6 | 4,000 298:22 |
| 58:24 59:13,20 | 161:4 165:22 | 147:25 171:16 | 4/19 97:17 |
| 171:12 | 165:25 168:20 | 34 67:24 85:14 | 4/20 179:11 |
| 261/262 20:3,5 | 173:15 176:8 | 159:19 211:4 | 40 109:25 |
| 26522 311:20 | 181:14 298:23 | 35 50:19 51:1 | 191:15,23 |
| 27 48:16 50:20 | 3,000 256:12 | 51:10 96:21 | 193:14 |
| 51:2,11 58:17 | 3,200 138:19 | 111:9,12,12 | 400 127:25 |
| 58:18,24,25 | $30 \quad 66: 1288: 11$ | 127:22 191:11 | 128:7 290:24 |
| 59:12,13,19,20 | 211:6 238:2 | 35/36 51:4,14 | 401h 98:2 |
| 86:19 154:7 | 239:10 | 35ear 128:25 | 402h 98:3 |
| 180:12 211:3 | 300 74:13,15,18 | 129:3 | 403 97:21 98:1 |
| 27113 312:17 | $287: 4 \text { 290:22 }$ | 36 50:20 51:2 | 404 97:22 98:2 |
| 28 57:14 58:16 | 30th 252:6 | 51:11 111:9 | 410 191:14 |
| 58:23 59:11,18 | 31 41:10 77:6 | 36s 55:24 | 193:13 196:16 |
| 59:25 60:7 | 77:10 97:16,18 | 37 103:2 | 419 167:15 |
| 67:24 77:25 | 211:5 217:14 | 38 103:25 | 42 126:23 |
| 81:4 111:10 | 238:3 239:10 | 109:25 | 420 167:19 |
| 131:21 164:22 | 31st 251:21 | 39 109:25 | 422 110:21 |
| 167:18 189:16 | 257:17 | 3:39 268:24 | 423 110:22 |
| 280 28:23 29:3 | 32 41:11 67:24 | 3:40 262:7 | 113:2,15 |
| 283 10:6 | 80:13 150:5 | 3a 173:6,12,17 | 424 38:15 48:1 |
| 28e 81:6,19 | 211:2 | 3rd 252:8 | 425 38:15 48:1 |
| 29 57:14 | $320 \quad 41: 16$ | 4 | 426 38:15 |
| 171:12 247:7 <br> 297298 | 81:2 103:23 | 4 11:8 16:21 | 46:24 48:1 |
| 297/298 20:7,8 | 104:9 118:9 | 17:7,17 18:7 | 42780 80:25 |
| 20:9 | 156:18 183:10 | 18:17 19:7 | 43 126:23 |
| 2nd 258:13 | 320s 183:6 | $\begin{aligned} & 43: 158: 17,24 \\ & 59: 12,19,25 \end{aligned}$ | 44 11:5,6,7,8,9 |


| 445 171:10 | 179:24 182:4 | 58 21:18 | 708h 59:3 |
| :---: | :---: | :---: | :---: |
| 449 35:17 | 182:13,16 | 205:18 | 709h 59:3 |
| $45 \quad 129: 23$ | 184:6 | 5h 104:2,6 | 71 237:8 |
| 450 35:17 | 50 27:15 44:23 | 217:14 | 238:11 |
| 287:15,25 | 163:25 231:5 | 6 | 710h 59:4 |
| 451 35:17 | 264:6 | 6 8:14 21:3 | 72 238:11 |
| 452 35:17 | 500 290:24 | 6 70:17 149:12 | 72/76 12:12,13 |
| 453 35:17 | 501h 59:22 | $167.2310: 8$ | 12:15 |
| 454 35:17 | 98:2 | $60 \quad 193: 19$ | 725 291:3 |
| 455 35:17 | 50270 118:11 | 601h 98:2 | 73 238:25,25 |
| 46 149:12 | 502h 59:22 | 602h 98:3 | 239:24 |
| 47 153:17 | 98:3 | 61609 7:11 | 74 239:25 |
| 48 153:18 | 503h 59:22 | 62/66 12:4,6,7 | 240:1 |
| $480 \quad 50: 2451: 8$ | 504h 59:23 | $639131: 9$ | 74h 288:10 |
| $49 \quad 159: 7$ | 51687 235:14 | $640 \quad 86: 2287: 3$ | 79/80 12:20,21 |
| 4:40 307:10 | 51930 191:7 | 183:5 | 7h 78:2 |
| 4h 287:10 | 51940 193:9 | 65 249:12 | 8 |
| 4th 24:10,15,18 | 52 170:20,21 | 652 203:12 | 8 192:20 |
| 24:22 25:9 | 231:25 | 69 131:16 | 8,000 42:2 |
| 162:9 163:18 | 520h 59:22 | 6:45 310:10 | 160:7 165:10 |
| 163:18 252:9 | 521h 59:23 | 7 | 168:7 171:22 |
| 5 | 52769 127:15 |  | 175:14 |
| 5 11:9 17:8,18 | 53 170:20,21 | $\left\lvert\, \begin{array}{cc} 7 \quad 41: 1147: 12 \\ 70: 1788: 1 \end{array}\right.$ | 8,800 154:14 |
| 18:8,18 19:8 | $\begin{aligned} & \text { 53/57 11:15,17 } \\ & 11: 19 \end{aligned}$ | $180: 19,21$ | $80 \quad 44: 24$ |
| 43:4,15 44:9 | 11:19 | 70 236:25 | 800 42:3 160:8 |
| 44:12 155:14 | $\begin{gathered} 54 \text { 170:20 } \\ 180: 3 \end{gathered}$ | $\begin{array}{lr}700 & 291: 3\end{array}$ | 165:10 168:7 |
| 155:21 156:6 | $180: 3$ $55 \quad 53.18$ | 701h 59:2 | 171:22 175:14 |
| 157:20 161:19 | 55 53:18 | 702h 59:2 | 191:22 193:20 |
| 162:3,12 | $\begin{array}{rrr} 184: 12 & \\ \mathbf{5 5 2 8 8 5 9} & 8.23 \end{array}$ | 703h 59:2 | 194:12 195:8 |
| 163:20 166:13 | $56 \quad 90: 1493: 7$ | 704h 59.3 | 290:19 |
| 166:22,24 | $185: 21$ | 705h 59:3 | 801h 59:2 |
| 169:14,24 | 185:21 <br> 57 92.23 | 706h 59:3,9 | 802h 59:2 |
| 170:16 174:10 | 190:17 263.22 | 707h 59:3 | 803h 59:3 |
| 174:20 176:24 | 190:17 263.22 |  | 804h 59:3 |
| 177:7,10 |  |  |  |

[805h - acting]

| 805h 59:3 | a3 53:15 88:18 | 260:9,10 | achievement |
| :---: | :---: | :---: | :---: |
| 806h 59:4 | 104:19,20 | 264:11 280:23 | 117:23 |
| 83/85 13:3,4,5 | 105:5 106:21 | 282:24 296:16 | acre 6:2 50:24 |
| 13:6,8,10 | 107:4,8 108:14 | 303:6 308:16 | 58:22 59:5,7 |
| 835 235:4 | 108:18,21 | above 191:17 | 59:17 67:17,22 |
| 835a 266:13,13 | 109:2,19 114:4 | 193:17 194:10 | 81:2 86:22 |
| 85 44:25 | 115:4 116:14 | 196:16 251:13 | 87:3 97:15 |
| 850 290:19 | 119:6 193:3,15 | 255:12 282:19 | 103:23 104:9 |
| 87501 8:21 | a4 193:3 | 287:3 291:19 | 118:9 127:25 |
| 88 144:21 | a4a 119:7 | 292:16 302:14 | 128:7 133:3 |
| 89/95 13:16,18 | a4b 119:11 | abundance | 156:18 183:5 |
| 13:20,22 | a4c 119:14 | 119:19 121:24 | 183:10 191:15 |
| 9 | a5 60:14 88:21 | 125:19 | 191:23 193:14 |
| 9 118:13 | 119:16 193:5 | acceptable | acreage 29:12 |
| 127:16 128:3 | 193:18 | 37:20 | 34:7 45:21 |
| 128:10 133:13 | a6 88:22 | accepted 69:3 | 46:5,6 68:4 |
| 133:16 150:8 | 119:21 | 78:11 81:13 | 72:2 86:18 |
| 9,000 218:2 | a7 119:23 | 87:15 98:12,25 | 127:16,19 |
| 933 217:22 | a8 119:1 120:5 | 128:18 209:2 | 129:14 135:2,7 |
| 218:1 | 123:8 | 285:5 | 135:14 140:3 |
| $98220 \text { 86:18 }$ | aapl 68:24 | accessing 21:13 | 141:25 142:1 |
| $\mathbf{9 8 2 4 6} \quad 127: 18$ | abadie 23:6 | accomplish | 159:23 161:23 |
| 9:16 8:15 | 33:2 77:14 | 60:10 | 162:23 163:1,3 |
| 9th 70:2,13 | 164:7 184:15 | accomplished | 166:16 169:18 |
| 151:2,3 268:20 | abandoned | 202:2 | 169:18 174:25 |
| 268:24 | 242:1 | accordance | 206:23 210:24 |
| a | ability 74:16 | 178:21 | 213:8 309:2 |
| a.m. 8:15 | 312:7 | 304:20 | 127:21 |
| 268:24 | able 28:15 60:5 | accurate 273:6 | acres 41:16 |
| a1 87:18 119:1 | 94:21,23 | 311:9 312:5 | 131:9 |
| 119:2 192:25 | 140:21 142:19 | accurately | acrobat 125:1 |
| a2 87:23,24 | 145:7 196:17 | 273:6 | acted 25:25 |
| 119:4 193:2 | 229:4,5 246:13 | achieve 228:16 | acting 121:13 |

[action - admitted]

| action $311: 12$ | $102: 4186: 6,11$ | $239: 9,11,16$ | adjustment |
| :---: | :---: | :---: | :--- |
| $311: 16312: 8$ | $186: 19211: 14$ | $244: 15257: 20$ | 299:12 |
| 312:12 | $211: 16,20$ | $259: 21,23$ | admin $178: 9$ |
| actively $266: 25$ | $212: 8216: 14$ | $260: 23269: 24$ | $188: 7$ |
| activities 228:8 | $216: 17217: 11$ | $269: 24274: 24$ | administrative |
| actual $74: 16$ | $223: 25259: 9$ | $276: 15279: 20$ | $178: 4180: 22$ |
| $233: 17270: 12$ | $260: 9,23$ | $285: 10291: 19$ | $186: 11,14$ |
| 272:15 298:21 | $295: 18309: 2$ | $295: 18296: 8$ | $187: 19188: 17$ |
| 300:3 | added $35: 4$ | $297: 3,16$ | administrativ... |
| actually $28: 13$ | $222: 17239: 9$ | $302: 14308: 2$ | $186: 23187: 1$ |
| $28: 16,18,23$ | $239: 11$ | $308: 18$ | $187: 14188: 2$ |
| $29: 531: 8$ | adding $35: 8$ | additionally | $189: 24190: 8$ |
| $35: 2550: 13$ | $212: 10,11$ | $121: 3255: 15$ | administrator |
| $53: 1764: 24$ | $235: 24$ | $282: 4$ | $27: 18$ |
| $75: 14111: 17$ | addition $136: 4$ | address $104: 17$ | admission $44: 9$ |
| $111: 19113: 7$ | $138: 17192: 9$ | $185: 6192: 17$ | $152: 1166: 21$ |
| $118: 4124: 1$ | $214: 4,6244: 12$ | $229: 24236: 9$ | $169: 24177: 6$ |
| $145: 23196: 7$ | $260: 3261: 7$ | $255: 21260: 23$ | $182: 13261: 20$ |
| $197: 16203: 22$ | $285: 10$ | $266: 22268: 2$ | $294: 22296: 23$ |
| $213: 17247: 21$ | additional $5: 7$ | $295: 1,3296: 22$ | $297: 21$ |
| $251: 11254: 7$ | $8: 523: 25$ | $306: 6$ | admissions |
| $268: 14273: 7$ | $43: 1256: 18,20$ | addressed | $174: 20$ |
| $279: 2301: 11$ | $95: 12105: 8$ | $105: 20267: 25$ | admit $56: 16$ |
| $302: 17306: 10$ | $110: 25111: 15$ | addresses | $170: 11310: 1$ |
| ad $171: 20$ | $111: 18112: 2$ | $99: 14$ | admitted $52: 24$ |
| adam $9: 422: 9$ | $129: 24138: 7$ | addressing | $57: 266: 471: 8$ |
| $25: 1226: 10$ | $139: 24154: 20$ | $295: 2$ | $72: 776: 18$ |
| $33: 1336: 8,16$ | $170: 14172: 13$ | adequate | $79: 1580: 4$ |
| $38: 1292: 2$ | $186: 20206: 7$ | $295: 24$ | $83: 389: 18$ |
| $103: 9117: 9$ | $206: 13210: 3,6$ | adjoining | $95: 2199: 23$ |
| $132: 13148: 22$ | $210: 15211: 20$ | $29: 11$ | $102: 15105: 9$ |
| $185: 24205: 19$ | $212: 8216: 5$ | adjudication | $109: 17112: 12$ |
| $220: 5$ | $217: 11,13$ | $185: 4200: 24$ | $116: 12122: 5$ |
| add $8: 524: 24$ | $225: 5,9235: 18$ | adjust $150: 22$ | $126: 15130: 18$ |
| $35: 346: 3$ | $235: 19237: 24$ |  | $132: 4148: 12$ |
|  |  |  |  |
|  |  |  |  |

[admitted - afternoon]

| 153:2 155:21 | 120:1 129:22 | 62:8 66:23 | 173:16 174:11 |
| :---: | :---: | :---: | :---: |
| 157:16 162:3 | 155:1 160:22 | 67:8 70:18,19 | 174:14 175:7 |
| 163:12 179:17 | 165:20 168:17 | 81:15 82:16,25 | 175:12,17 |
| 184:1 190:15 | 172:25 175:15 | 83:16,23 84:4 | 176:8,22,24 |
| 209:11 261:24 | 176:5 181:12 | 84:7 85:1 86:6 | 177:2 181:2,14 |
| 298:3 310:1 | affect 278:10 | 89:13 90:6,8 | 182:3,4,8 |
| adobe 125:1 | 302:16 305:24 | 90:16,22 91:9 | 294:19 296:5 |
| adopt 200:25 | affected 54:18 | 91:20,23,24 | 296:21,24 |
| advance 122:1 | 54:19 70:2 | 92:23 93:9,14 | 297:10,18 |
| advantage | 136:18 140:8 | 93:23,23 98:22 | affidavits 11:9 |
| 244:22 | 243:7,9 244:1 | 99:13,20 | 16:21 43:4 |
| adverse 261:9 | 244:5 297:1,16 | 103:12 108:17 | 81:10 91:12 |
| 292:22 296:3 | 306:1 307:12 | 110:19 112:9 | 92:5,8 98:6,9 |
| 296:14 | 307:14,15,24 | 117:12 121:12 | 100:13 128:15 |
| advice 31:11 | 307:25 | 122:2 124:13 | 137:5 146:11 |
| advisement | affecting | 125:6 128:19 | 146:16 172:25 |
| 53:1 56:17 | 306:13 | 130:5,14 | affirmed 11:18 |
| 57:4 66:5 | affidavit 11:7,8 | 132:21 134:2,7 | 13:7,15,17,19 |
| 76:19 79:16 | 13:5,6,9,21 | 134:19 137:16 | 15:3,5,7,17 |
| 80:5 83:5 | 14:5,6,7,8 | 139:1 140:4,5 | 16:5,7 52:13 |
| 84:24 89:19 | 15:15,16,19 | 140:23 146:1 | 82:23 87:12,12 |
| 99:24 102:16 | 16:9,10,12,19 | 146:14 150:15 | 87:17 88:25 |
| 105:10 109:18 | 16:20 17:5,6,7 | 150:24,25 | 89:11 107:2 |
| 112:14 116:13 | 17:8,15,16,17 | 152:3 154:13 | 118:24 120:10 |
| 122:7 126:17 | 17:18 18:5,6,7 | 155:3,10,14,15 | 121:17 130:12 |
| 130:19 132:5 | 18:8,15,16,17 | 155:18,19 | 133:23 134:8 |
| 141:1 148:13 | 18:18 19:5,6,7 | 158:10 160:4,6 | 134:23 136:22 |
| 153:4 190:16 | 19:8 20:6,8,9 | 160:16 161:4 | 136:25 137:20 |
| 205:7 308:21 | 21:21 37:4,12 | 161:11,12,19 | 138:3 187:7 |
| 310:2 | 39:6 41:18 | 162:5 164:13 | 207:5 294:20 |
| advisors 117:2 | 42:4,5,14 43:1 | 165:8,22 166:9 | 296:9 |
| afe 112:3 113:2 | 43:16,16 47:1 | 166:13,17 | afternoon |
| afes 42:12 52:7 | 48:11,13 50:5 | 168:4,20 169:1 | 152:2 167:3 |
| 61:670:17 | 50:8 52:19 | 169:14,19,20 | 185:24 190:19 |
| 82:13 88:22 | 56:20 58:2,5 | 171:20 172:20 | 283:12 |

[agenda - answered]

| agenda 21:11 | 257:7 258:23 | 201:24 | 237:1,6 261:7 |
| :---: | :---: | :---: | :---: |
| ago 98:5 | 274:3 | amazing 77:1 | 285:9 288:18 |
| 151:10 | allocations | amber 16:6 | 288:24 298:8 |
| agree 24:25 | 142:10 | 133:24 | analyzes 138:6 |
| 31:8 102:1 | allow 30:10 | amend 4:2 6:8 | 233:18 234:12 |
| 141:22 | 40:12 95:19 | 7:16 8:2 77:21 | 235:23 293:19 |
| agreeable | 104:9 134:13 | 108:21 150:2 | andres 103:22 |
| 37:12 | 134:14 138:14 | 186:19 187:15 | 204:5 |
| agreement | 138:15 141:12 | 201:1 203:4 | andrew 12:6 |
| 23:23 27:25 | 192:3,11 | 206:3 | 61:13 |
| 39:2 141:19 | allowable 8:7 | amended 1:16 | angell 51:4,14 |
| 161:16 166:12 | 191:14,18,22 | 20:4 88:10 | angle 42:23 |
| 169:12 174:8 | 192:2,6 193:13 | 104:18,19,20 | angus 90:8 |
| 175:23 293:20 | 193:17,20 | 105:4 107:7 | 91:9 |
| agreements | 194:11,12 | 108:18 120:4 | announcements |
| 107:17 134:9 | 195:5 196:24 | 123:22 129:23 | 21:24 |
| 134:14 | 198:22 199:18 | 152:3 169:20 | annular 226:22 |
| ahead 31:6 | 202:11 206:10 | 206:23 213:11 | 226:23 228:8 |
| 40:4,12 41:1 | 210:10 228:11 | 214:1 | annuli 255:4 |
| 127:10 132:1 | 228:18 229:1,5 | amending | annulus 227:1 |
| 185:14,17 | 229:11,22 | 308:17 | 253:9 255:7 |
| 219:4 246:3,7 | 230:22 231:22 | amendment | 279:1 |
| 264:23 273:23 | 232:4 259:11 | 213:14 308:24 | anomaly |
| 276:9 295:12 | 282:5,21 | amendments | 269:14 |
| 298:17 305:18 | allowables | 210:17 259:10 | answer 60:21 |
| ain't 266:18 | 202:9 | 309:1 | 72:8,8 79:16 |
| 275:5 | allowed 73:1 | amount 169:19 | 117:18 194:25 |
| align 228:18 | 138:12 | 175:9 260:1 | 195:16 266:7 |
| aligns 293:16 | allows 78:6 | 269:1 304:7 | 267:11 274:5,6 |
| alive 115:14 | 150:11 | amuse 107:13 | 283:2 294:24 |
| allocate 245:13 | alpers 19:13 | analysis 136:25 | 294:25 298:8 |
| 276:16 | 192:22,25 | 137:2 211:9 | 298:19 302:19 |
| allocation | 193:6 194:16 | 233:4,9,14 | 303:20 306:4,6 |
| 141:19 244:24 | 198:24 199:4,6 | 234:9,9,17,20 | answered |
| 245:1,6,7 | 199:6,12 | 236:19,21 | 156:16 |

[answering - appreciate]

| answering | api 214:9 230:4 | 205:20 | 193:1 209:5,17 |
| :---: | :---: | :---: | :---: |
| 141:7 | 241:10 | applicant's | 209:18,21 |
| answers 195:19 | apologize 39:24 | 56:3 | 210:9 214:8,17 |
| 262:17 | 102:8 146:6 | application | 216:11 224:17 |
| anticipated | 185:7 213:1 | 1:11,16,21 2:1 | 235:17 243:2 |
| 231:2,3 | 299:22 | 2:9,14,21 3:1,5 | 245:8 259:8,12 |
| antonio 117:2 | appear 21:21 | 3:10,16,20 4:1 | 260:14 262:20 |
| anybody | appearance | 4:7,14,18 5:1,5 | 284:20 293:10 |
| 125:14 | 23:16 50:14 | 5:11,16 6:1,7 | 293:12,22 |
| anymore | 58:7 67:12 | 6:11,15,21 7:1 | 296:6 297:1,12 |
| 107:19 283:3 | 113:19 117:6 | 7:7,10,15,20 | applications |
| anyway 40:9 | 117:15 149:17 | 8:1 13:3 16:3,4 | 2:16 14:4 |
| 41:4 146:17 | 154:2 164:5 | 16:17 17:3,13 | 15:13 25:1 |
| aor 237:6,9,11 | 167:6 184:18 | 18:3,13 19:3 | 33:22,25 34:3 |
| 237:16 238:8,9 | appearing 22:9 | 20:3 27:19,21 | 39:14 41:5 |
| 238:15,23 | 25:13 33:14 | 28:1,7 29:25 | 51:16 59:24 |
| 239:2,3,7,7,10 | 36:9,13,17 | 30:13,20 33:20 | 87:10 88:3 |
| 239:18,22 | 38:8,13 77:14 | 52:1 57:8 61:3 | 97:13,24 98:6 |
| 240:8,25 241:2 | 103:10 117:3 | 64:4 69:6 81:9 | 98:8,15 128:14 |
| 241:2,8 243:1 | 117:10 132:13 | 95:2 100:23 | 137:1 175:5 |
| apache 26:14 | 158:9,11 | 111:25 118:17 | applied 50:22 |
| 26:18 27:20 | 185:24 205:20 | 119:3 133:20 | 51:7 58:20 |
| 28:5,7,9,23 | 207:13 | 133:22 140:9 | 59:15 78:20 |
| 29:5,11,13,18 | appears 63:5 | 150:14 151:3,6 | 189:24 230:22 |
| 29:21,24 30:18 | 144:24 | 151:11 154:11 | 258:23 |
| 30:22 31:6,9 | appellate | 154:21,24,25 | applies 191:5 |
| 36:15,18,21 | 158:11 | 158:21 160:3 | 202:6 |
| 49:21,24 50:4 | applicable | 165:7 168:3 | apply 197:8 |
| 50:7,8 54:6 | 269:17 | 171:19 175:11 | 198:23 199:18 |
| apache's 27:17 | applicant 22:9 | 180:16,18,24 | 231:21 271:16 |
| 29:9,10,14,22 | 25:13 26:11 | 180:25 183:2 | 274:3 282:6 |
| apd 31:10 56:5 | 80:17 85:18 | 183:18 186:6 | applying 199:1 |
| 56:8,11 96:8 | 127:3 132:13 | 186:10,15 | 257:6 |
| 96:10 157:8 | 174:24 185:25 | 187:4,6,20 | appreciate |
|  | 191:8 200:25 | 188:18 191:3 | 80:11 97:7 |

Page 11

## [appreciate - asking]

| 142:24 185:8 | 151:12 161:16 | area 8:542:19 | 303:5 |
| :---: | :---: | :---: | :---: |
| 185:19 221:25 | 166:12 169:12 | 42:22 60:3 | areas 181:18 |
| 261:19 283:2 | 183:6,18 206:5 | 68:5 71:25 | 211:1 218:23 |
| 308:14,20 | 211:17 216:2 | 99:6 150:16 | 218:23 219:7 |
| approach | 217:7 218:6,11 | 161:7 166:2,3 | 219:17,18 |
| 229:1 | 233:2 241:4 | 173:8,19 | 223:2,7,12 |
| approaches | 244:24 245:2 | 176:11,19 | 236:22 289:2 |
| 274:19 | 248:20 249:8 | 181:17,19 | arguably |
| appropriate | 250:13 258:24 | 194:4 199:22 | 147:16 |
| 33:8 137:3 | approves | 206:6,20,23 | argument 76:6 |
| 246:16 | 187:19 | 210:1,23,24,25 | argus 52:21 |
| approval 2:10 | approving | 211:4 213:8,12 | 79:10 99:21 |
| 2:16 3:12 4:8 | 148:7 183:14 | 215:16 216:22 | 119:21 121:25 |
| 5:17 6:2,17,23 | approximate | 216:24 217:12 | armstrong 7:20 |
| 7:3,9 27:19 | 217:21 289:17 | 218:14,15,24 | 19:12 190:18 |
| 51:17,19 56:6 | 291:11 | 219:2,3,23 | 190:20,23 |
| 60:9,11 63:20 | approximately | 220:1,3,7,13 | 191:5,8,19 |
| 63:25 64:1 | 27:14 97:14 | 221:14,17 | 192:3,13,23 |
| 86:16 88:4 | 138:19 217:18 | 222:2,15,15 | 193:7 194:1,18 |
| 127:11 133:2 | 304:2 | 223:9,10,11,13 | 198:22 199:8 |
| 141:23 180:22 | april 8:14 21:3 | 231:8 235:1 | 201:7 205:10 |
| 183:9,16 | 37:23 44:3,8 | 236:19,20 | arrangement |
| 186:11 188:2 | 48:7 86:12 | 237:1,8,9,14,16 | 142:12 |
| 196:23 210:25 | 88:13 95:16,22 | 238:9,10,13 | arriba 7:12 |
| 259:19 260:14 | 125:13 149:12 | 239:3,24 240:2 | artesia 157:13 |
| approvals | 153:10 157:17 | 240:3,13,23 | artificial |
| 134:20 | 159:1 162:7 | 241:24 242:1 | 226:18 265:9 |
| approve 54:13 | 167:2 170:13 | 243:5,12,22,23 | artificially |
| 134:3,13 142:1 | 173:10 174:21 | 247:1 248:6 | 221:12 |
| 142:6,13 174:7 | 179:18 184:2 | 249:9 259:9,22 | asked 24:14 |
| 185:14 186:23 | 227:23 246:25 | 277:18 285:25 | 29:14 76:20 |
| 188:17 | 310:8 | 286:6 290:18 | 141:7 187:3 |
| approved 8:3 | aquifers 291:22 | 290:21,23 | asking 52:4 |
| 56:4,5,8 61:22 | 291:24 | 291:2 292:15 | 54:13 56:10 |
| 64:7,7 141:20 |  | 295:18 300:12 | 75:9 101:9 |

[asking - b]

| 155:8 160:7 | 137:5,20 138:3 | 187:22 190:8 | avogato 209:23 |
| :---: | :---: | :---: | :---: |
| 183:12 187:17 | 168:22 176:8 | authorization | 215:9 216:19 |
| 187:23 210:1,2 | 213:6 245:8 | 27:7 30:14 | 216:22 217:8 |
| 267:9 278:23 | 296:8 297:9,11 | 142:5 186:21 | 217:12 218:23 |
| 279:8 305:10 | attachment | 212:5 | 219:25 221:17 |
| aspects 241:8 | 42:5,20 47:18 | authorize | 221:22 222:2 |
| assess 278:3 | 154:18 160:24 | 141:19,22 | 222:15,23 |
| assessment | 161:6 165:15 | 206:7,7 213:13 | 223:10 237:8 |
| 242:18 260:17 | 165:24 168:8 | 218:16 | 237:14,21 |
| 261:8 275:8 | 168:11,15 | authorized | 238:10 239:3 |
| 292:15 | 169:1,6 172:2 | 27:16 186:13 | 239:24 243:23 |
| assigned | 172:6,15 173:2 | 186:16 206:10 | 249:5,7,21,22 |
| 135:11 201:21 | 173:21,23 | 206:20 210:9 | 249:22,23 |
| assigning | 175:14,17,24 | authorizing | 250:15 251:13 |
| 202:10 | 176:5 181:4,7 | 141:25 210:3 | 251:14,20 |
| associated | 181:11,15,21 | 277:13 | 269:13,22 |
| 127:16,19 | 182:1 | automatically | 270:15 272:6 |
| 129:2,14 | attachments | 34:19 | 286:24 287:10 |
| 210:14 240:12 | 165:11 169:1 | availability | 287:20 288:10 |
| 269:19 | 297:21 | 34:14 | 290:3,3 |
| assume 185:10 | attempted | available 60:21 | avoid 189:25 |
| 262:18 265:20 | 172:16,21 | 79:16 190:25 | 232:16 |
| 276:19 | 176:3 | 194:16 246:4 | aware 96:16 |
| assumed 149:3 | attempting | 269:14,17 | 157:7 299:14 |
| assuming 24:3 | 140:15 | avalon 211:23 | 299:16,19 |
| 188:6 189:4 | attention 88:6 | 212:6,12 | axes 257:14 |
| 263:24 | 143:12 308:15 | 214:22 215:23 | axis 247:14,22 |
| assumption | 308:20 | 217:3 234:10 | 248:3 250:1,2 |
| 231:17 266:13 | attorney | 286:21 287:4 | 252:5,14,21 |
| asterisks | 311:14 312:10 | 289:9 290:7,8 | 257:13 |
| 160:20 | audio 49:1 | 290:17,18 | b |
| attach 120:1 | 50:13 311:8 | 291:9 | b 11:1,16 12:5 |
| attached | 312:3 | average 248:25 | 12:13,21 13:4 |
| 108:24 134:7 | authority $2: 3$ | 251:4 | 13:17 14:4,14 |
| 134:22 135:16 | 26:1 187:5,19 |  | 14:22 15:5,14 |

[b - behalf]

| 16:4 19:14 | b3 69:11,12 | band 106:9 | 308:3,5 |
| :---: | :---: | :---: | :---: |
| 20:4 52:9,12 | 89:4 120:23,25 | bare 136:6 | basic 150:18 |
| 52:23 53:3 | 194:5 | barely 48:20 | 291:11 |
| 57:10 61:12 | b4 69:24 89:4 | barrel 121:4 | basically 37:15 |
| 62:13 66:8 | 121:4 194:6 | 215:1,8,9,15,16 | 142:8 178:3 |
| 68:10,15 72:5 | b5 69:23,24 | 216:19 | 195:3 227:25 |
| 72:11 76:23 | 121:7 | barrels 191:14 | 252:8 |
| 79:3,14,19 | b6 120:11 | 191:22 193:13 | basin 284:15 |
| 80:8 88:25 | 121:9 | 193:20 194:12 | 284:18 |
| 98:8 104:3,22 | b8 68:19 70:21 | 195:8 196:16 | basins 284:12 |
| 105:8,12 | baber 113:15 | 264:7 272:14 | basis 119:13,13 |
| 109:21 112:5 | 113:18 115:20 | barrier 291:16 | 135:17,18,24 |
| 112:12,16 | bachelor's | barriers 291:15 | 259:15 |
| 116:16 120:9 | 284:6 | 291:21,23 | batteries 63:24 |
| 122:5,10 | back 34:25 | bars 250:23 | 222:3 |
| 126:19 133:21 | 37:5 68:15 | base 159:21 | battery 220:20 |
| 154:18,20 | 96:4 108:12 | based 28:11 | 220:21 |
| 165:15 168:11 | 149:9 172:17 | 59:5 137:21 | beard 203:4 |
| 172:6 175:17 | 172:23 200:7 | 200:11 203:15 | beatty $23: 1$ |
| 181:4,21 | 221:10 222:9 | 212:18,24 | 97:1 |
| 193:24 194:19 | 232:15 236:24 | 222:10 229:10 | beginning |
| 205:11 213:7 | 248:15 254:5 | 235:22 236:16 | 223:20 236:25 |
| 213:16 214:1,4 | 254:10,14,16 | 241:23 242:17 | 245:9 251:21 |
| 214:7 224:4 | 254:18 257:25 | 245:22 248:19 | 252:8 291:10 |
| 229:14 242:12 | 268:23 272:16 | 249:15 258:9 | behalf $22: 9$ |
| 246:8 261:14 | 288:18 | 258:22 261:7 | 23:6,16 25:13 |
| 261:20,21 | background | 264:22 271:18 | 25:19 26:11,16 |
| 262:1 283:24 | 123:21 | 272:17,17,22 | 26:17 31:21 |
| 285:15 | backup 47:6 | 273:2,17 | 33:2,14 36:10 |
| b1 61:15 69:6 | 48:10 | 274:21 277:23 | 36:13,17,21 |
| 89:1 120:11,18 | backwards | 292:14 293:4 | 38:13 49:23 |
| 194:3,25 | 146:14 | 299:3,14 302:5 | 50:15 57:17,22 |
| 196:25 197:16 | bad 21:15 | 302:6 303:2 | 66:15,21 67:4 |
| b2 69:7 89:3 | badly 40:7 | 304:6,8 305:3 | 77:14 80:16 |
| 120:20 194:4 |  | 307:15,22,24 | 85:18,23 103:5 |

Page 14
[behalf - bond]

| $103: 10110: 3,9$ | $234: 15,24$ | better $49: 3$ | blank $46: 7$ |
| :---: | :---: | :---: | :--- |
| $117: 3,10127: 2$ | $240: 9243: 20$ | $109: 12201: 15$ | $83: 1884: 7$ |
| $132: 13149: 15$ | $249: 5251: 16$ | beyond $27: 15$ | $90: 7,12,23$ |
| $158: 9164: 2,8$ | $256: 18262: 21$ | $64: 6140: 2$ | $91: 892: 24$ |
| 184:15 185:25 | $263: 10,11$ | $173: 25274: 22$ | $93: 5$ |
| 190:20 205:20 | $265: 24267: 7$ | $282: 19$ | blind $91: 23$ |
| believe $21: 18$ | $268: 7271: 1$ | big $237: 15$ | blm $55: 1,2$ |
| 23:9,17 24:3,8 | $285: 18299: 5$ | $266: 7279: 8$ | $56: 1263: 20$ |
| 24:9,12 25:21 | $305: 12,24$ | bigger $39: 18$ | $64: 2,21,22$ |
| 26:24 27:3 | $308: 23310: 7$ | $64: 11$ | $65: 378: 20$ |
| $33: 19,2138: 16$ | belt $126: 1$ | bill $8: 1621: 6$ | $134: 10,13,21$ |
| $45: 1346: 14$ | ben $9: 14117: 2$ | $93: 2195: 20$ | $136: 8141: 11$ |
| $50: 255: 2,4,6$ | benefit $138: 4$ | bill's $196: 8$ | $141: 21142: 1,6$ |
| $56: 9,1163: 15$ | $138: 22296: 15$ | bit $21: 1335: 13$ | $142: 13144: 4$ |
| $73: 1076: 16$ | $296: 15$ | $41: 2367: 22$ | $161: 25162: 7,9$ |
| $94: 15100: 12$ | benefits $282: 2$ | $80: 10142: 3$ | $163: 17169: 13$ |
| $100: 13103: 7$ | bennett $9: 9$ | $226: 16237: 17$ | $174: 7179: 7$ |
| $107: 9,16,18$ | $26: 15,16,17,21$ | $239: 1245: 20$ | $183: 13244: 4$ |
| $108: 11110: 14$ | $28: 631: 12,16$ | $247: 10,19,25$ | blown $196: 7$ |
| $113: 6,17$ | $36: 19,2049: 22$ | $247: 25254: 8$ | blue $221: 3$ |
| $116: 13123: 8$ | $49: 2350: 6$ | $256: 2265: 25$ | $223: 11,12$ |
| $123: 10125: 4$ | $54: 7,857: 21$ | $272: 10277: 11$ | $230: 15237: 15$ |
| $129: 23139: 24$ | $57: 2258: 3$ | $294: 19$ | $238: 14249: 22$ |
| $143: 10145: 12$ | $62: 1766: 14,15$ | black $122: 24$ | $250: 23253: 14$ |
| $146: 1147: 24$ | $67: 1469: 4$ | $122: 25216: 2$ | $253: 15254: 12$ |
| $148: 1158: 5$ | $71: 974: 6,14$ | $217: 6220: 14$ | $255: 10289: 2$ |
| $162: 22170: 20$ | $74: 2475: 2,10$ | $227: 21230: 6$ | blurb $237: 15$ |
| $184: 10,25$ | $75: 1376: 7,25$ | $237: 18,20$ | $238: 14$ |
| $185: 11188: 11$ | $77: 2$ | $238: 16239: 14$ | board $96: 4$ |
| $188: 15189: 6$ | best $271: 14$ | $241: 2,3$ | bold $241: 2,3$ |
| $195: 11197: 5$ | $293: 23311: 9$ | blake $15: 16$ | $270: 6$ |
| $197: 25198: 24$ | $312: 6$ | $128: 16130: 8$ | bollenbach |
| $199: 19201: 7,8$ | beth $9: 1236: 12$ | blake's $130: 4$ | $13: 581: 11,15$ |
| $202: 22217: 23$ | $132: 18$ | blandford | bond $226: 2$ |
| $223: 20225: 14$ |  | $41: 18$ |  |
|  |  |  |  |

[bone - bruce's]

| bone $42: 21$ | $288: 3,7,10$ | $190: 4262: 15$ | $32: 15,1936: 4$ |
| :--- | :---: | :---: | :--- |
| $50: 2451: 8$ | $289: 9,10,21,21$ | $280: 1294: 8$ | $36: 437: 19$ |
| $58: 1559: 16$ | $290: 20,21,23$ | $298: 16306: 18$ | $38: 7,7,19,22$ |
| 60:4,11 $80: 23$ | $290: 24291: 1,2$ | braxton $41: 18$ | $39: 10,11,17,20$ |
| $80: 2497: 15,25$ | $291: 20,21$ | break $149: 8$ | $40: 2,5,8,15,22$ |
| $99: 4,10,10$ | $292: 7,10,11,12$ | $237: 12248: 21$ | $41: 344: 20$ |
| $111: 6127: 11$ | born $165: 4$ | $252: 4257: 8$ | $45: 4,9,14,19,24$ |
| $127: 14,17$ | bother $295: 13$ | $262: 7$ | $46: 8,11,20,23$ |
| $133: 6,14$ | bottom $46: 9$ | breakdown | $47: 3,8,13,20$ |
| $135: 21137: 10$ | $104: 4135: 22$ | $221: 13241: 12$ | $48: 14110: 8,9$ |
| $139: 12,18$ | $217: 5230: 8,8$ | breaking | $110: 11,14,17$ |
| $142: 15145: 13$ | $237: 13255: 16$ | $220: 11$ | $115: 11,13,14$ |
| $150: 7159: 21$ | boundaries | breaks $227: 14$ | $115: 17116: 3,7$ |
| $159: 21,23$ | $243: 11$ | $241: 1$ | $149: 14,14,19$ |
| $160: 1164: 20$ | boundary | brief $115: 12$ | $152: 20153: 9$ |
| $165: 3166: 2,6$ | $201: 21$ | briefly $60: 19$ | $153: 14,19,21$ |
| $167: 16,25,25$ | boxes $289: 2$ | $119: 2164: 19$ | $153: 23154: 4$ |
| $168: 23,24,24$ | boy $108: 5$ | $209: 19291: 6$ | $156: 16,20,23$ |
| $171: 9175: 2,2$ | $154: 8$ | brine $96: 6$ | $157: 4,9,22$ |
| $176: 10,17$ | bracket $191: 14$ | $157: 3230: 23$ | $158: 1,4,4,14,17$ |
| $180: 14181: 18$ | $191: 22192: 2$ | $231: 3$ | $159: 3,9,9,14$ |
| $206: 9210: 7$ | $193: 13,20$ | bring $30: 20$ | $162: 16,17,25$ |
| $211: 19,21,21$ | $194: 11196: 23$ | $88: 6260: 10$ | $163: 22164: 2,2$ |
| $212: 9,13,13,14$ | $198: 22199: 17$ | $269: 23,25$ | $164: 18167: 8$ |
| $214: 20,23,23$ | $202: 9,10$ | $280: 25$ | $167: 12,13$ |
| $215: 22,24,25$ | brad $16: 19$ | bringing $183: 8$ | $170: 8,18,22,25$ |
| $216: 5217: 2,3$ | $17: 5150: 15$ | $267: 7274: 24$ | $170: 25171: 5$ |
| $217: 4,5234: 14$ | $154: 12$ | broad $123: 19$ | $172: 2177: 21$ |
| $234: 17,21$ | brain $255: 3$ | $300: 10$ | $177: 23178: 1$ |
| $235: 8,13,25$ | brancard $8: 16$ | broke $49: 15$ | $178: 10,23$ |
| $239: 21240: 9$ | $21: 646: 3,14$ | $268: 11270: 8$ | $179: 2,8180: 1$ |
| $243: 22262: 24$ | $49: 672: 24$ | broken $289: 7$ | $180: 5,5,10$ |
| $263: 2,3,7,8,11$ | $84: 1285: 6$ | brought $231: 17$ | $183: 1,7184: 8$ |
| $285: 11287: 9$ | $96: 24117: 18$ | bruce $9: 11$ | bruce's $116: 2$ |
| $287: 11,18$ | $123: 20142: 25$ | $31: 24,2432: 7$ |  |
|  |  |  |  |

[brugioni - camera]

| brugioni 13:6 | c | c102s 41:20 | c7 82:12 129:21 |
| :---: | :---: | :---: | :---: |
| 81:11 82:19 | c 9:1 11:18 12:7 | 47:8,9 52:2 | 129:23 |
| brugioni's | 12:14 13:5,19 | 61:3 69:7 82:6 | c8 82:13 130:2 |
| 82:15 | 14:5,16 15:7 | 88:18 119:6 | c9 $71: 19$ |
| bta 2:14 31:18 | 15:15 16:5 | 129:11,14 | ca 141:22 142:1 |
| 31:21 32:4 | 19:15 20:6 | 131:9,9,16,21 | 142:6 |
| build 253:20 | 21:1 42:5 | 134:23 135:1 | calculate 251:7 |
| 279:3 | 52:24 53:3 | 135:10 147:15 | 275:10 |
| building 49:18 | $57: 1062: 2,13$ | 148:20 154:15 | calculated |
| 303:18 | $66: 8$ 68:12,13 | 156:2,4 157:18 | 230:11 257:4 |
| buildup 255:8 | 70:23 72:5,11 | 160:17 161:21 | 258:8 272:23 |
| built 169:3 | 76:23 81:15 | 162:5 163:1,17 | 273:20 282:10 |
| 175:10 274:20 | 89:10 98:9,19 | 165:12 166:15 | calculating |
| 304:1 | 104:4,25 105:8 | 168:8 169:17 | 273:4 276:11 |
| bulk 239:2 | 105:12 109:21 | 172:4 175:16 | calculation |
| bump 220:4 | $\begin{aligned} & 105: 12109: 2 \\ & 121: 16122: 5 \end{aligned}$ | 177:4 181:4 | 230:10,21 |
| bunch 21:19 | 122.10 $126 \cdot 19$ | 182:10 223:17 | 231:9 258:23 |
| 73:24 106:22 | 128:19 133:23 | c2 81:20 98:18 | 274:1,25 282:5 |
| 230:14 | 135 | 108:2 122:2 | calculat |
| buratowski | 72:15 173:21 | 129:6 134:22 | 229:9 |
| 12:15 68:13 | 175:24 181:7 | 200:5 | 231:13 276:16 |
| 70:24 71:6,22 | 182:1 192:17 | c3 82:5 98:19 | 277:19 |
| buratowski's | 194:19 205:11 | 129:9 135:13 | call 22:3 60:21 |
| 71:10,10 72:3 | $208 \cdot 1295: 6$ | c4 82:7 98:20 | 97:9 158:3 |
| burnett 16:8 | 297:21,23 | 101:3,7,13,14 | 208:12 215:15 |
| 136:23 | 298:2,4 | 101:20,23 | called 1:7 65:12 |
| burst 230:21 | c1 81:16 98:17 | 102:3,17 | 106:2 113:3 |
| 231:5 | 121:19 128:20 | 129:11 136:10 | 154:8 180:15 |
| business 125:8 | 134:8 296:9 | c4s 101:7,20 | 198:12 199:13 |
| 261:16 | c10 72:3 | 102:1 | 208:6 |
| busy 143:11 | $\text { c102 } 48: 10$ | c5 82:7 98:21 | calling 250:8 |
| butchered | 104:16 129.15 | 101:23 129:17 | 279:21 |
| 178:25 | $155 \cdot 24170 \cdot 20$ | 136:14 | camera 49:15 |
| button 54:10 | 184:3 193:2 | $\begin{gathered} \text { c6 82:10 129:18 } \\ 136: 17,21 \end{gathered}$ | 49:16 |

[camp - case]

| camp 60:4 | carbon 172:8 | 14:12 15:2 | 93:15,25 94:6 |
| :---: | :---: | :---: | :---: |
| 64:12 67:16,17 | 172:18 174:5 | 16:16 17:2,12 | 94:10 95:11,22 |
| 67:20,23 69:9 | card 200:7 | 19:2,12 20:2 | 96:5,11,21 |
| 69:10 71:17 | cards 39:20 | 23:19 25:9,13 | 97:4,9 102:14 |
| 77:24 86:17 | 44:25 52:18 | 26:3,8,12,24 | 102:15 103:2 |
| 111:6 133:4,11 | 62:7 99:19 | 30:2,17,25 | 103:10,12,16 |
| 135:21 137:10 | 101:18 112:8 | 31:4,10 32:2 | 103:18,21 |
| 139:7,13,18 | 125:24 152:4 | 34:18 36:17 | 105:9,18 |
| 142:15 145:14 | 152:22 155:20 | 37:3 38:17 | 108:10 109:12 |
| 147:10,11,13 | 166:17 169:20 | 39:6 43:20,25 | 109:16,17 |
| 154:8 155:6 | 182:9 | 46:3,22,24 | 110:24 111:22 |
| 156:2 171:8,13 | care 148:19 | 48:12 50:4,7 | 112:12 113:7 |
| 171:15 | 179:12 | 50:15,22 51:6 | 113:11,19 |
| cancel 25:25 | career 284:10 | 51:23 52:24 | 114:21,23 |
| candidate | careful 276:3 | 53:16,18 55:2 | 115:9 116:23 |
| 216:6 | carlsbad 43:6 | 56:12 57:4 | 117:10,12,15 |
| candidates | 52:20 62:9 | 58:1,4,14,19 | 118:7 119:7,10 |
| 237:25 | 79:9 90:8 91:8 | 59:14 60:10,23 | 119:15,18 |
| canyon 303:4 | 93:9 96:6 | 60:25 61:8 | 120:2 125:12 |
| 304:12 | 112:10 119:20 | 63:2,2 66:12 | 125:18 126:11 |
| capable 191:17 | 121:25 157:3 | 66:23 67:7,12 | 126:15,16 |
| 193:16 194:10 | carlson 187:8 | 67:15,16,16 | 127:24 128:6 |
| capacity | carried 115:1 | 68:1,8,17 69:6 | 128:24 129:2,7 |
| 208:20 269:24 | carroll 17:16 | 72:774:2 | 129:7 130:18 |
| 269:25 281:1 | 161:5 | 76:17,19 77:10 | 131:19,23 |
| 283:15 | carry 267:18 | 77:17,20,21 | 132:2,21,25 |
| capture 8:4 | cart 142:4 | 79:15 80:4,5 | 133:5,6,10,11 |
| 206:6 209:24 | case 1:11,16,21 | 80:13,19,22 | 133:14,22 |
| 211:12 218:7 | 2:1,9,14,21 3:1 | 82:19 83:4 | 134:4,25 |
| 218:12 229:25 | 3:5,10,16,20 | 84:23,23 85:24 | 137:10 139:7,7 |
| captured | 4:1,7,14,18 5:1 | 86:6,21 87:2 | 139:10,12,12 |
| 162:22 | 5:5,11,16 6:1,7 | 89:18,20 90:7 | 142:21 145:13 |
| capturing | 6:11,15,21 7:1 | 90:7,13 91:20 | 147:5,19 148:2 |
| 259:3 | 7:7,15,20 8:1 | 91:21,24 92:4 | 149:12,17,22 |
|  | 12:11,19 13:2 | 92:8,15 93:4 | 150:1 151:5,8 |

Page 18
[case - central]

| 151:9 152:19 | cases 11:3,13 | 132:3,5,11,14 | 268:17 287:21 |
| :---: | :---: | :---: | :---: |
| 152:24 153:1,2 | 12:2 13:14 | 133:2,7,24 | 290:1 298:23 |
| 153:2,3,13 | 14:2,20 15:12 | 134:13 138:5 | 304:2 |
| 154:2,4 155:17 | 16:2 18:2,12 | 139:5 141:1 | catch 271:25 |
| 157:11,15,17 | 21:18,20,21,22 | 143:12 145:12 | catches 237:15 |
| 158:3,13,16,23 | 22:4,10 23:7 | 148:11,12 | catching |
| 159:7,12,14 | 23:12 24:2,3,5 | 149:21 151:13 | 123:17 |
| 160:13 163:11 | 24:9,21 25:8 | 151:18,22 | category 54:15 |
| 163:17,25 | 32:22 33:5,17 | 153:10,17,19 | caught 84:21 |
| 164:12,19 | 35:16,17,23 | 164:1,11 | cause 48:25 |
| 167:5,15,19 | 36:2,23 37:22 | 166:15 170:20 | 78:7,14 92:16 |
| 168:2 170:12 | 38:5,15,23,25 | 171:3,6 173:4 | 93:19 101:22 |
| 170:24 171:7,8 | 39:1,3,5,18 | 177:2 178:13 | 102:23 122:20 |
| 171:13,17 | 40:12,18 41:1 | 179:16 201:12 | 147:9 148:6 |
| 174:13,22,24 | 41:8,17 42:15 | casing 192:11 | 178:16 195:25 |
| 179:18 180:3,8 | 43:7 44:22 | 224:1,25 227:1 | 240:19 304:14 |
| 180:10 183:24 | 45:7,7,12 46:2 | 230:24,24 | caused 119:20 |
| 184:1,11,24 | 46:7 47:25 | 231:4 241:15 | 121:24 297:8 |
| 185:21,25 | 48:6,9,16 50:1 | 241:15 251:25 | causing 193:22 |
| 186:2 188:3,13 | 50:17 52:25 | 253:7,9,20 | 299:8 |
| 190:14,17,22 | 54:12 57:1,14 | 254:1,16,22 | caution 119:19 |
| 191:5 192:16 | 57:25 60:20 | 255:5,7,7,11,14 | 121:24 125:19 |
| 201:9,16 | 66:2,4 81:8 | 255:17,18 | 201:10 |
| 204:15 205:4,6 | 85:20 86:5,11 | 263:15 | cbls 226:6 |
| 205:17,18,20 | 86:15 87:9 | cat 215:8,10,16 | cedar 303:4 |
| 205:24 206:14 | 88:14 89:7 | 216:6,10,23 | 304:12 |
| 207:8 209:6,17 | 91:15 92:22,22 | 218:23 219:23 | cells 269:17 |
| 210:16 225:16 | 93:2 94:2,24 | 220:3,6,12,15 | cement 224:1 |
| 263:20,21,22 | 95:22 97:10 | 221:13 222:14 | 225:1,1,25 |
| 264:23 266:17 | 109:25 110:21 | 222:22 223:11 | 226:1,2 241:16 |
| 279:18,19 | 111:18 112:13 | 238:13,16,17 | 279:1,3 |
| 284:3,20 | 115:9 116:1,10 | 240:2,3 243:22 | center 286:9 |
| 295:16 301:6 | 116:12 126:23 | 246:19 247:1 | central 63:23 |
| 305:23 308:21 | 127:5,21 | 247:13 248:7 | 220:20,21 |
| 309:24 310:1 | 128:13 130:8 | 249:4,10,24 |  |

Page 19
[centralized - clgc]

| centralized | changed | 47:5 48:9 | 78:24 79:18 |
| :---: | :---: | :---: | :---: |
| 222:3 228:20 | 222:13 236:16 | 68:10 81:10 | 80:7 |
| 281:22 | 236:17 | 98:5,8 101:22 | circle 216:2,7 |
| certain 70:13 | changes 211:7 | 108:24 118:17 | 234:12 |
| 133:11 151:22 | 211:10 222:19 | 122:16 128:15 | circles 217:6,10 |
| 181:18 213:2 | 223:6 245:5 | 153:12 155:23 | circulated |
| 277:24 | 254:4,4 259:13 | 156:17 162:4 | 146:4 |
| certainly 109:4 | 265:10 | 163:13 166:19 | circumstance |
| 125:17 | changing 245:3 | 169:22 174:16 | 222:11 |
| certificate | 265:9 | 177:3 182:10 | circumstances |
| 311:1 312:1 | charles 11:7 | 184:3,12 | 302:7 |
| certified 52:17 | 18:6 19:6 | checklists 16:3 | clarified |
| 62:6 68:24,24 | 42:14 165:23 | 39:19,21 87:11 | 148:14 |
| 112:8 140:12 | 168:21 181:14 | 133:20 151:15 | clarifies 69:19 |
| 146:3 155:12 | chart 52:15 | 157:18 161:22 | 136:1 |
| 155:18 161:12 | 62:4 105:2 | 179:19 | clarify 63:16 |
| 166:17,18 | 114:13 249:24 | chevron 57:20 | 122:16 131:13 |
| 169:21 176:3 | 250:7 252:15 | 57:22 58:1,4,5 | 146:17 162:22 |
| 176:23 181:10 | 252:19 256:25 | 62:16 | 189:3 197:15 |
| 182:9 297:4,15 | 257:4 | choice 56:2,3 | 303:25 304:19 |
| certify 311:3 | charts 275:16 | choosing | clarifying 70:6 |
| 312:2 | chase 187:14 | 264:13 | 70:7 268:7 |
| cetera 40:20 | check 22:21 | chose 297:17 | clear 28:12 |
| 196:3 201:1 | 23:13 54:6 | chronology | 34:22 73:12 |
| cgl 220:24 | 55:5 77:6 86:5 | 52:7 61:6 | 116:5 143:20 |
| 221:4 222:5 | 92:17 124:3 | 82:14 88:23 | 187:17 190:6 |
| chaka 16:9 | 144:11 157:10 | 98:21 112:4 | 216:12 218:5 |
| 137:16 | checked 56:19 | 120:5 123:5 | 235:7,16 |
| change 73:3 | 93:12 | 130:2 136:14 | clearly 21:10 |
| 197:7 219:9 | checking 92:15 | cimarex 2:21 | 64:22 101:4 |
| 223:4 253:14 | 94:13 | 4:1 12:19 23:3 | 277:8 |
| 254:11 255:17 | checklist 12:12 | 23:6 32:24 | clerk 52:20 |
| 286:2 304:14 | 13:4 14:3 | 33:2,19 77:10 | clge 210:3 |
| 305:14,24 | 15:14 40:10,19 | 77:14,18,20 | 216:13 241:4 |
|  | 40:24 46:1 | 78:12,16,20,23 |  |

[client - common]

| client 157:11 | $\boldsymbol{\operatorname { c o g }}$ 3:16 12:2 | columns | comingling |
| :---: | :---: | :---: | :---: |
| 163:2 180:18 | 36:11,13 37:1 | 230:11 231:12 | 142:22 183:14 |
| clients 110:18 | 57:15,18 58:11 | 231:13 241:17 | 187:2,14 188:4 |
| 115:19 116:2 | 58:14,19 59:14 | 250:16 | 190:8 235:2,19 |
| clipping 83:17 | 59:24 60:8,11 | com 2:5 51:4 | commence |
| close 23:24 | 60:20 62:12 | 51:14 59:2,9 | 150:10 |
| 25:3 96:6,13 | 63:16 66:7 | 78:2 98:1,3 | commencem... |
| 157:6 248:13 | 67:15 101:4,7 | 111:12 128:5 | 4:4 77:23 79:2 |
| 250:4,4 | 101:9 132:15 | 128:12 129:8 | 150:3 |
| closed 8:3 | 132:17,20 | 133:13 | commend |
| 206:6 209:23 | 133:19 140:21 | combination | 118:5 |
| 211:11 218:6 | 174:9 | 74:15 256:13 | comment |
| 218:11 226:9 | cog's 60:1 | 278:15 | 260:23 |
| 229:25 | colgate 5:5 | combine 63:8 | comments 66:2 |
| closer 27:16 | 14:20 110:1,3 | 147:22 219:10 | 116:10 179:15 |
| 237:17 | 110:18,22,24 | combined 64:9 | 183:24 309:24 |
| closes 24:1 25:4 | 111:14,17 | 153:19,21 | commingle |
| closure 7:10 | 112:1,15 | 223:3,6,12 | 142:19 186:21 |
| clue 189:9 | 116:15 | 234:5 250:18 | commingling |
| co2 138:20 | colleague 93:12 | combining | 142:13 183:14 |
| code 80:24 | collected | 147:17 | 186:6,13,17 |
| 86:18 118:11 | 256:20 | combo 286:7 | 187:13 189:24 |
| 127:15,18 | collectively | 289:12 | 233:3 266:18 |
| 135:10 155:25 | 41:9 | come 63:22 | 266:24 |
| 161:21 162:24 | colliding 260:6 | 96:4 118:3 | commission |
| 166:16 169:18 | color 122:17 | 154:21 196:5 | 58:11 134:1 |
| 169:18 177:5 | colorado 284:8 | 218:20,22 | commit 120:7 |
| 182:11 191:7 | coloring 221:19 | 219:8 291:23 | committed |
| 193:9 203:21 | colorings | comes 172:23 | 69:20 73:16 |
| 213:12 235:10 | 222:17 | coming 142:14 | 97:14,25 98:15 |
| 235:12,14 | colors 230:14 | 259:21,24 | 154:16,17 |
| codes 172:5 | 230:14 | 272:5 | 175:21 |
| 213:22 | column 230:9 | comingle 187:5 | common |
| coffman 12:21 | 230:25 250:22 | 187:22 | 175:22 275:21 |
| 78:9,16 | 282:8 |  |  |

[communicating - concerns]

| communicating | $167: 6170: 15$ | completing | $128: 1,8159: 17$ |
| :---: | :---: | :--- | :--- |
| 123:21 | $170: 24172: 14$ | $120: 13$ | $191: 10286: 25$ |
| communicati... | $177: 9179: 23$ | completion | $287: 11,22$ |
| $42: 6,7104: 15$ | $180: 4182: 15$ | $29: 20150: 22$ | $288: 11$ |
| $120: 7160: 21$ | $184: 5185: 22$ | $241: 14300: 24$ | comprising |
| $168: 16175: 25$ | compared | complicated | $41: 15$ |
| $181: 8$ | $303: 17$ | $35: 12$ | compulsory |
| communitiza... | comparing | complied | $1: 13,18,22$ |
| $134: 9,14136: 8$ | $300: 3$ | $189: 10,12$ | $2: 243: 2,6,11$ |
| $141: 18,18$ | comparison | $201: 2$ | $3: 17,214: 10$ |
| $166: 12174: 8$ | $231: 21300: 2$ | comply $225: 23$ | $4: 15,205: 2,13$ |
| company $1: 12$ | comparisons | components | $5: 196: 4,12,16$ |
| $1: 172: 23: 2,6$ | $230: 21$ | $216: 24220: 8$ | $6: 227: 212: 12$ |
| $4: 8,155: 176: 8$ | compatibility | $221: 16,19$ | $13: 415: 14$ |
| $6: 12,16,227: 2$ | $235: 24$ | $222: 6,16$ | $68: 1081: 9$ |
| $7: 1611: 313: 2$ | compatible | $237: 10238: 12$ | $87: 11118: 17$ |
| $13: 1415: 12$ | $233: 10$ | $238: 20239: 12$ | $128: 14144: 1$ |
| $16: 1617: 2,12$ | competing | composition | $177: 22,25$ |
| $18: 2,1219: 2$ | $23: 2133: 24$ | $267: 8$ | $178: 18183: 4$ |
| $22: 623: 7$ | $34: 3,9$ | comprehend | computed |
| $25: 1033: 3$ | competition | $173: 25$ | $305: 25$ |
| $36: 338: 6,10$ | $118: 2$ | compressor | computer |
| $44: 1166: 18,21$ | complete $27: 8$ | $220: 22222: 5$ | $49: 15$ |
| $77: 1580: 13,17$ | $27: 1928: 2,16$ | $228: 20282: 22$ | computing |
| $83: 885: 2,14$ | $30: 1483: 23$ | compressors | $274: 21275: 20$ |
| $85: 18,2389: 22$ | completed | $281: 22$ | concern $231: 6$ |
| $95: 23110: 12$ | $29: 1242: 17$ | comprise $41: 15$ | $240: 23272: 21$ |
| $126: 24127: 3$ | $59: 860: 4$ | $210: 25223: 13$ | $273: 8281: 20$ |
| $130: 21132: 7$ | $104: 5120: 4$ | $291: 13$ | $282: 12299: 6$ |
| $149: 13152: 7$ | $174: 16191: 16$ | comprised | concerns $30: 18$ |
| $153: 6,18156: 5$ | $193: 10241: 18$ | $50: 2551: 9$ | $37: 2144: 19$ |
| $157: 19158: 3$ | $241: 18278: 4$ | $58: 2359: 18$ | $57: 158: 5$ |
| $159: 8,15$ | completely | $81: 286: 23$ | $104: 18122: 13$ |
| $162: 11163: 19$ | $81: 18$ | $87: 4103: 24$ | $148: 11235: 23$ |
| $164: 1,8166: 23$ |  | $111: 8118: 12$ | $236: 1255: 10$ |
|  |  |  |  |
|  |  |  |  |

Page 22
[concerns - containing]

| 255:19 | confine 292:19 | connecting | consistent |
| :---: | :---: | :---: | :---: |
| concho 101:4,8 | confining 287:3 | 221:11 | 74:19 137:14 |
| 101:9 133:19 | 287:13,24 | connection | 161:24 166:14 |
| concluded | 291:15,19 | 293:6 | consolidate |
| 246:8 310:11 | 292:16 | connectivity | 51:20 97:4 |
| concur 93:21 | confirm 22:22 | 264:15 300:15 | consolidated |
| condense | 29:18 94:23 | conocophillips | 119:13 167:8 |
| 141:12 | 100:16 103:14 | 61:18 65:7 | conspicuously |
| condition 228:1 | 123:25 124:8 | consenting | 69:17 |
| 242:4,18 | 147:25 148:5 | 42:9 | constitute |
| 250:13 | 173:10 188:9 | consequence | 261:15 |
| conditional | 216:20 232:5 | 260:17 | constructed |
| 250:23 | 232:10 233:6,9 | conservation | 60:15 |
| conditions 96:9 | 263:10 266:16 | 1:3,7 21:4 | construction |
| 96:13 206:16 | 268:8 292:14 | 167:4 184:18 | 224:22 228:10 |
| 225:24 254:24 | confirmation | 192:5 | contact 52:7 |
| 265:11 277:4 | 25:25 179:21 | consider | 61:6 112:4 |
| conduct 228:1 | 226:10 306:11 | 228:25 258:9 | 119:14 157:11 |
| conducted | confirmed | 259:12 274:8 | 157:12 172:16 |
| 29:21 227:10 | 105:21 226:11 | 274:15 275:15 | 176:3 291:23 |
| 229:9 233:18 | 295:22 | 276:15 | contacts 69:24 |
| 236:20 237:6 | confirms | consideration | 82:14 88:23 |
| 239:7,8 284:23 | 246:15 296:3 | 185:8 188:22 | 98:21 120:6 |
| 302:7 | confused 38:21 | 211:7 277:9 | 121:19 123:5,6 |
| conduit 242:20 | 100:23 106:17 | 295:22 303:18 | 130:3 136:15 |
| conference | 113:1 131:12 | 308:15 | 165:19 |
| 23:10 24:18,22 | 145:21 | considerations | contain 51:24 |
| 25:8 30:2 31:4 | confusing | 264:19 | 60:25 98:5 |
| 31:15 37:10 | 102:8,10 213:1 | considered | 111:23 155:24 |
| conferences | confusion | 70:16 147:21 | 176:17 |
| 21:19 | 69:20 146:6 | 219:2 | contained |
| confident 25:2 | connect 222:22 | considering 1:9 | 172:24 |
| configuration | 223 | 55:23 273:1,7 | containing |
| 226:16 | connected | 306:11 309:14 | 171:21 176:19 |
|  | 231:14 | 309:17 | 181:2 |

[contains - correct]

| contains 41:19 | 162:8 | control 204:7 | correct 25:22 |
| :---: | :---: | :---: | :---: |
| 42:6,16,24 | continue 24:9 | conventional | 32:4,5 33:21 |
| 43:4 68:11,14 | 34:20,25 35:8 | 226:25 227:4 | 37:1 40:4 47:3 |
| 98:18 107:4 | 37:23 56:20 | 228:3,6 263:14 | 47:13 48:14 |
| 119:6,11 | 64:25 86:12 | 264:24 265:5 | 53:24 55:3 |
| 121:19 150:13 | 95:15 107:20 | 265:22 | 63:9,14 76:21 |
| 154:13,15,25 | 125:12,18,21 | converted | 85:1 86:2 |
| 155:9 160:6,16 | 153:12 158:20 | 226:15 227:4 | 90:25 95:15,17 |
| 161:5,10 | 158:25 162:7 | 264:24 266:3 | 101:1 102:1 |
| 165:23 168:6 | 179:9 282:18 | conveyed 34:13 | 107:23 108:16 |
| 168:11 171:19 | continued | coordinate | 110:16,17 |
| 171:23 173:16 | 31:15 40:13 | 96:17 280:24 | 113:13 114:13 |
| 173:23 175:25 | 41:2 43:22 | 280:25 | 115:1,4,24 |
| 176:9 181:4,9 | 44:4 48:6 | coordination | 124:10,11,22 |
| 181:12 | 88:14 95:22 | 64:12 | 124:23 125:3 |
| contartesi | 153:10 157:17 | copied 114:20 | 125:23 129:24 |
| 312:2,18 | 163:18 166:20 | copies 195:25 | 139:13 144:1 |
| contemplated | 167:4 169:25 | copy 13:3 | 145:8,14 146:9 |
| 201:2 | 170:13 174:21 | 15:13 16:4 | 146:12 147:7,8 |
| content 75:6 | 177:8 179:18 | 42:11 78:4 | 147:19 153:14 |
| contested 27:1 | 182:14 184:2 | 81:8,21 83:21 | 156:19,20,23 |
| 30:8 32:11 | continues | 84:11,13 87:10 | 167:10 168:10 |
| 34:5,15,25 | 107:7 | 99:16 119:2,23 | 170:22,22 |
| context 259:18 | continuing | 128:13 133:21 | 178:1,5,7 |
| 275:25 299:2 | 30:21 89:20 | 136:14 168:17 | 179:21 183:8 |
| 301:4 | 281:16 | 209:16 | 185:1,2 187:16 |
| contingencies | continuous | corner 50:18 | 196:15 197:5 |
| 79:11 280:10 | 181:22 | 50:19 191:11 | 199:23 201:8 |
| 280:13,17 | continuously | 242:25 | 210:20 211:18 |
| contingency | 271:24 | corp 113:3 | 211:25 212:7 |
| 281:1,11 | contracts | corporation | 213:8,9,18,19 |
| continuance | 192:13 | 7:21 19:12 | 213:24 214:2 |
| 23:9 25:3 | contributing | 26:14,18 49:21 | 214:18,24,25 |
| 37:15 38:2 | 235:20 | 49:24 190:18 | 215:5 216:15 |
| 43:21 157:24 |  | 194:18 205:10 | 216:16 218:3,8 |

[correct - credentials]

| 219:1 223:13 | 304:15,18 | coshow's | 127:22 150:6 |
| :---: | :---: | :---: | :---: |
| 223:14,21,22 | correlate 278:9 | 124:13 | 154:7 159:19 |
| 224:7 228:4 | correlated | cost 75:9 | 180:13 191:12 |
| 232:8,13,14,20 | 277:7 | 138:11 160:13 | 297:7 |
| 233:12,20 | correlates | costs 74:16 | couple 28:8 |
| 235:3,6,15,21 | 253:7,11 | 75:23 134:16 | 45:1 98:5 |
| 236:6 237:2 | 277:21 | 136:12 | 151:21 172:22 |
| 242:9,10,14 | correlation | counsel 11:10 | 178:12 220:25 |
| 243:18 244:2,3 | 249:16 265:3 | 11:20 12:8,16 | 241:17 246:20 |
| 244:6,11 245:4 | 265:15,20 | 12:22 13:11,23 | 247:24 250:9 |
| 245:5,10,11,18 | 277:5 | 14:9,17,23 | 250:16 252:25 |
| 245:24 246:6 | correlative | 15:9,21 16:13 | 257:13 280:8 |
| 260:16 262:25 | 137:4 192:5 | 16:22 17:9,19 | 289:4,5,6 |
| 263:16,17 | 243:5 260:19 | 18:9,19 19:9 | course 27:13 |
| 264:16 265:6 | 293:23 | 19:16 20:10 | 43:776:11 |
| 265:23 267:23 | correspond | 57:5 123:20 | 83:6 88:5 |
| 267:24 268:15 | 239:18 252:13 | 184:4 185:1 | 155:22 171:15 |
| 268:16 269:9 | 265:11 | 311:10,13 | 181:24 247:1 |
| 270:10,10 | corresponding | 312:7,10 | 273:8 277:15 |
| 272:3,3 276:20 | 214:22 281:9 | counties 43:5 | court 21:9 77:7 |
| 282:20 285:17 | corresponds | county 1:13,18 | cover 202:14 |
| 292:21,25 | 120:24 240:14 | 1:23 2:7,11,19 | covered 46:18 |
| 299:17 302:1,3 | 252:23 268:25 | 2:24 3:3,7,7,13 | 144:11,12 |
| 302:9 304:22 | 277:22 | 3:18,22 4:5,11 | 235:1 237:19 |
| 309:7 | corrosion | 4:16,21 5:3,8 | covering 97:15 |
| corrected 88:8 | 233:10 235:24 | 5:13,20 6:5,9 | covers 67:23 |
| 101:7 156:2,4 | 236:8,9,11,13 | 6:13,19,24 7:5 | 98:20 202:5 |
| 162:5 286:3 | 263:19 267:20 | 7:13,17,24 | 223:8 228:9 |
| correcting | 268:5,5 279:17 | 8:11 41:11,12 | create 59:7 |
| 116:14 | 309:9 | 43:19 44:5 | 64:9 200:10 |
| corrections | corrosive | 50:21 51:12 | created 69:14 |
| 102:17 268:2 | 267:19 | 58:18 71:23 | 204:13 300:11 |
| correctly 110:7 | cosby 181:14 | 78:1 81:4 | creation 104:9 |
| 139:7 203:17 | coshow 15:4 | 86:19 103:25 | credentials |
| 270:25 273:20 | 118:20,25 | 111:10 118:14 | 78:10 81:13 |

[credentials - date]

| 87:15 128:18 | 210:11 224:17 | d2 82:17 99:3 | data 29:7,15 |
| :---: | :---: | :---: | :---: |
| 137:19 209:1 | 227:8 230:16 | 130:6 | 44:7 93:19 |
| crosby 11:7 | 236:12 241:10 | d3 82:18 99:9 | 155:4 193:3,5 |
| 18:6 19:6 | 241:18,21 | 130:7 | 193:16,18 |
| 42:15 165:23 | 264:16,22 | d4 99: 131376 | 223:24 224:16 |
| 168:21 | 282:25 286:12 | d5 99:3 | 224:21 225:4,9 |
| cross 42:16 | currently 186:7 | d6 99:9 | 225:15 226:1 |
| 52:11 62:1,1 | 191:13 196:16 | d8 99:3 | 240:15,21 |
| 71:13,14 82:18 | 197:20,23 | d9 99:9 | 245:22 246:1,4 |
| 89:2,3 99:9 | 212:1,6 217:9 | damage 175:8 | 246:12 248:17 |
| 104:24 120:24 | 224:13 225:21 | 193:21 | 248:18,19 |
| 130:7 137:7,8 | 226:21 228:12 | damaging | 249:1,21 250:9 |
| 137:11 166:5,6 | 234:10 235:4 | 202:19 | 250:10,12 |
| 168:22 173:17 | 241:19 264:21 | dan 13:6 81:11 | 251:14,22 |
| 176:14 181:21 | 267:14 275:22 | dana 8:22 | 252:2,4,7,7 |
| 194:7 288:21 | 277:14 281:23 | 11:19 52:13 | 254:4,4 255:9 |
| 289:3,6,7,10,16 | curve 304:3 | 77:7 116:20 | 255:11 256:20 |
| 289:20,25 | cut 41:4 108:4 | 149:5 311:2,21 | 256:22,23 |
| crowning | 166:22 | dance 77:3 80:6 | 257:1,12 259:1 |
| 117:22 | cx 10:2 | 85:5 95:7 | 259:4 260:25 |
| ctb 220:20,24 | d | 102:23 144:9 | 261:1,2 269:4 |
| 221:4 222:4,7 | d 10:1 13:6,21 | dang 54:9 | 269:15 270:13 |
| cubic 247:3 | $14: 6 \text { 15:16 }$ | dangerous | 270:14,20,24 |
| 248:10,14 | 14.615 .16 | 148:4 | 271:8,20,20 |
| 249:13 | 82.16 89.13 | daniel 16:8 | 273:17 275:15 |
| cuff 278:2 | 95.24 98.22 | 136:23 | 276:23 277:3 |
| cumulative | $130 \cdot 5136 \cdot 22$ | darin 9:7 23:5 | 277:13,16 |
| 258:6,14 | 173:23 176:5 | 33:1 77:12,13 | 278:3 293:4 |
| 270:23 | 181:12 207:20 | 85:22 164:7 | 299:20 303:13 |
| cure 149:25 | $296: 23,24$ | 184:14 | 304:24 305:4 |
| curious 45:11 | $297: 10,22,23$ | dark 253:14,15 | date 8:14 30:4 |
| 73:8 91:2 | $\begin{aligned} & 29 /: 10,2 \\ & 298: 2.4 \end{aligned}$ | 254:12 | 30:20 32:16 |
| 141:14 | d1 82:17 99:1 | dashed 223:11 | 33:22 35:1,4 |
| current 52:21 | 130:6 137:5 | 223:12 | 52:16,17 62:5 |
| 79:10 90:8 |  |  | 79:2 112:7 |

[date - descending]

| 170:10 191:25 | dealing 43:25 | dedicated | denoting |
| :---: | :---: | :---: | :---: |
| 245:22 246:4 | 96:8 231:14 | 41:13 51:3,13 | 160:20 |
| 246:20 247:14 | dean 8:19 | 59:1,21 104:1 | density 286:9 |
| 250:17 261:2 | 188:16 306:4 | 111:11 134:5 | department 1:2 |
| 261:12 296:4 | deana 9:9 | 135:2,7 186:8 | 21:5 203:5 |
| dated 88:1,11 | 26:16,17 36:20 | deemed 119:18 | depending |
| dates 241:15 | 49:23 57:22 | deeper 215:24 | 196:8 265:7 |
| david 15:15 | 66:15 | 215:25 225:23 | 274:2 |
| 128:15 | december 45:2 | deepest 217:2 | depicting 119:5 |
| day 34:5 77:4 | 45:2,4 52:22 | 217:20,23,24 | 120:20 |
| 102:25 125:9 | 70:6,8 | 234:22 | depicts 98:20 |
| 191:14,23 | decent 21:11 | defect 88:7 | 121:5,9 |
| 193:13,21 | decide 76:10 | deficit 179:13 | deposition |
| 194:12 196:17 | 190:4 | defined 214:12 | 311:1 |
| 247:7 248:1 | decided 27:6 | definitely 41:24 | depressed |
| 252:20 256:10 | 169:5 185:3 | 45:2 102:9 | 272:13,23 |
| 257:18,19,20 | 201:8 | 271:19,24 | 273:3,5,7 |
| 257:20 264:7 | decides 200:17 | 274:14 275:23 | depth 139:15 |
| 272:14 276:17 | decks 308:5 | 276:3 280:16 | 139:25 191:13 |
| 304:24 310:4 | declaration | definition | 191:22 192:2 |
| days 98:5 122:1 | 12:13,14,21 | 54:19 | 193:13,20 |
| 125:8 193:19 | 68:11,12,19 | degree 302:17 | 194:10 196:23 |
| 247:8,15 248:2 | 69:570:24 | delach 16:6 | 198:22 199:17 |
| 248:22,22 | 71:11,22 | 133:25 | 202:8,10 |
| 258:21 277:6 | decline 265:4,8 | delaware | 217:19,22,23 |
| 302:22 304:1 | 265:16,17 | 284:15,18 | 217:25 231:9 |
| 304:22 | decrease 229:2 | delay 37:4 | 231:16,16 |
| de 50:9 58:8 | 255:14 | delays 78:21 | 291:11 |
| deadline 4:4 | decreased | delete 189:22 | depths 214:22 |
| 77:23 151:24 | 194:13 | deleted 189:5 | 215:22 217:22 |
| deadlines 150:3 | dedicate 69:8 | deliverable | 225:8,13,18 |
| 206:12 210:13 | 81:5 86:24 | 176:4 | 241:15,20 |
| deal 25:2 96:8 | 87:5 128:4,11 | de | descending |
| $\text { 96:11 } 266: 7$ | 133:11,12,15 | demonstrating 211:9 | 215:22 281:3 |

[describe - dismiss]

| describe 67:21 | determining | difference | 283:10 |
| :---: | :---: | :---: | :---: |
| 280:10 291:10 | 57:6 | 214:3 221:21 | direction |
| described | develop 34:7 | 222:1 239:6 | 181:16 185:4 |
| 140:20 282:17 | 59:24 | 266:22 272:18 | 261:15 |
| 287:21 | developed | 278:12 301:1 | directional |
| describes 168:5 | 161:7 173:8 | differences | 47:17 |
| describing | 181:17 215:19 | 24:4 221:18 | directly 83:21 |
| 286:18 | 242:5 267:2 | 300:21 | 185:5 216:9 |
| description | developing | different 71:16 | 272:2 278:9 |
| 11:2,12 12:1 | 99:8 121:14 | 113:25 129:13 | 301:25 |
| 12:10,18 13:1 | development | 129:14 135:14 | disagreement |
| 13:13 14:1,11 | 34:8 45:23 | 142:14,16,20 | 293:17 |
| 14:19 15:1,11 | 64:13 78:17 | 142:22 178:17 | disappointed |
| 16:1,15 17:1 | 120:16 137:3 | 185:4 212:4 | 151:17 185:15 |
| 17:11 18:1,11 | 215:16 216:24 | 214:20,21 | discovered |
| 19:1,11 20:1 | 259:21,23 | 219:19,20 | 70:15 204:12 |
| design 224:12 | 260:3 268:1 | 222:3,4,6,7,8 | discrepancy |
| designated | 284:14,16 | 240:1 252:4 | 266:12 300:9 |
| 101:10 165:4 | devon 86:3,6 | 268:11 274:3 | 300:12 |
| 165:17 201:5 | 90:1 164:5,8 | 276:2 277:4 | discuss 30:21 |
| 307:23 | 164:12,14 | 300:8 303:5,8 | 45:17 139:22 |
| designed | 165:18 167:6 | differentials | 274:7 277:17 |
| 202:14 | 168:13 170:3 | 303:15,21 | 291:18 298:24 |
| desk 43:14 | devonian 7:23 | difficult 40:18 | discussed 29:8 |
| desktop 93:3 | 191:7 193:4,9 | 40:20 272:10 | 157:6 179:19 |
| detail 218:20 | 194:5,6 204:10 | difficulties | discussing |
| detailed 120:12 | diagram 81:16 | 93:18 | 144:22 290:10 |
| 246:21 | 87:19 121:4,7 | digest 278:3 | discussions |
| details 120:6 | 128:20 129:4 | digging 230:13 | 23:20,22 27:3 |
| 121:12 223:25 | 215:17 243:1 | digital 311:8 | dismiss 8:10 |
| determination | diagrams | 312:3 | 25:1,5,21,24 |
| 273:18 277:14 | 224:18,19 | diligence 23:25 | 28:1 31:5,7 |
| determine | 242:5,11,23 | dipping 290:12 | 184:25 186:20 |
| 203:2 301:8 | diamond 85:23 | direct 189:23 | 187:4,12,18 |
| 304:13 |  | 208:14 237:3 | 206:22 218:17 |

[dismiss - drilling]

| 308:25 | 142:5 167:4 | dizzy 221:24 | downhole |
| :---: | :---: | :---: | :---: |
| dismissal 28:7 | 177:1 178:13 | docket 1:6 30:4 | 186:6,13,17,21 |
| 185:15 218:6 | 180:23 183:16 | 34:16,19,24 | 187:1,5,13,14 |
| 218:11 | 184:19 185:10 | 48:7 86:13 | 187:22 188:4 |
| dismissed 26:4 | 186:15,22 | 88:13 118:18 | 189:23 226:15 |
| 29:25 30:17 | 187:4,18 188:9 | 125:13,21 | 227:4 265:10 |
| 31:1 151:9 | 188:11 191:4 | 157:25 170:13 | download |
| 180:24 188:4 | 191:20 195:24 | 179:11 | 92:11 93:3,24 |
| display 289:10 | 197:11 201:4 | document | 94:10 95:10 |
| 289:11 | 206:2 208:24 | 64:21 93:22 | downloaded |
| disposal 192:12 | 209:3 213:6,11 | 233:5 306:6 | 93:2,22 95:10 |
| disputes 23:21 | 213:21 215:11 | documentation | downloading |
| district 157:12 | 226:8 229:19 | 47:6 48:10 | 94:24 |
| disturbance | 229:24 243:2 | 66:6 152:18 | downwards |
| 68:4 | 244:13 245:2 | 163:14,15 | 256:12 |
| diversely | 246:2,14 | documents | dozen 151:18 |
| 266:17 | 258:24 259:6 | 158:22 159:1 | draft 189:22 |
| division 1:3,8 | 259:12 262:5 | doing 64:12 | drafting 205:8 |
| 20:5 21:4 22:8 | 267:22 274:15 | 77:2,7,8 | dragonstone |
| 25:12,25 28:14 | 283:18,25 | 116:20 148:3 | 150:6 |
| 34:9 41:21 | 285:3 293:12 | 149:5,6 153:20 | draw 118:10 |
| 51:23 60:25 | 294:3,23 | 169:4 205:23 | drawing 46:5 |
| 61:14 68:18 | 307:23 | 238:25 255:9 | drill 2:17 27:10 |
| 71:1 72:8 | division's 29:9 | dome 113:3 | 60:1 150:6 |
| 81:12 83:5,6 | 136:20 186:24 | door 49:17 | 165:3 |
| 87:15 88:7 | 211:10 214:15 | dot 216:13 | drilled 28:21 |
| 89:19 92:5 | 215:3 226:3 | 234:18 | 28:22 29:12 |
| 96:7 97:23 | 229:10,20 | dots 46:9 | 60:5 81:25 |
| 98:11,25 | 232:6 233:8 | dotted 220:12 | 104:2 150:17 |
| 100:11 102:2 | 236:19 243:8 | double 22:21 | 159:24 173:18 |
| 111:1,4,22 | 244:8,21,24 | 55:5 92:15,17 | 176:11 211:24 |
| 118:22 122:6 | 245:21 297:2 | downey 127:8 | 217:15 223:17 |
| 128:17 130:20 | 307:13,16 | 128:5,12,25 | drilling 27:13 |
| 134:1 135:6 | 308:14,20 | 129:3,8 | 42:2,25 78:19 |
| 137:18,23 |  |  | 78:23 79:1 |

[drilling - either]

| 82:21 89:9 | dx 10:2 | 247:19 | 175:10 |
| :---: | :---: | :---: | :---: |
| 130:10 150:3 | e | easiest 158:23 | eddy $2: 73: 7,13$ |
| 150:19,22 | e 9:1,1 10:1 | 183:15 | 3:17,22 4:5,11 |
| 154:7 160:8 | $11: 1 \text { 13:7 14:7 }$ | east 41:9,10,12 | 4:16,21 5:8,13 |
| 161:10 167:23 | 15:17 16:9 | 50:21 51:2,11 | 6:13,24 7:5 |
| 169:7 175:2 | 20:9 21:1,1 | 58:17,18,24,25 | 41:10 43:19 |
| 180:13 182:1 | 82:22 99:13 | 59:11,12,13,19 | 50:21 51:11 |
| 196:3 241:14 | 101:17 116:1 | 59:20 60:6 | 58:18 71:23 |
| drinking 293:7 | 130:11 137:16 | 67:25 72:1 | 78:1 81:4 |
| drop 254:6 | 160:24 169:6 | 77:25 81:4 | 86:19 111:10 |
| 272:1 | $172 \cdot 13173.2$ | 86:19 97:16,17 | 118:14 154:7 |
| dropped 254:7 | $198: 6,6,7$ | 97:18,18,18,19 | 180:13 |
| due 63:19 | $199: 7,7 \quad 207: 20$ | 97:21,22,22 | education |
| 71:22 107:21 | 207:21,21,25 | 103:25 104:8 | 137:19 283:21 |
| 245:25 246:3 | 207:25 208:1 | 111:10 118:14 | 284:4 |
| duly 65:12 | 296:23 297:9 | 127:22 128:3,9 | effect 56:20 |
| 198:12 199:13 | 297:18,22,24 | 128:10,10 | 124:12 267:8 |
| 208:6 311:5 | $298: 2,5$ | 150:4,5 154:7 | 296:12 301:12 |
| dunn 16:19 | e.g | 159:19 164:23 | effective |
| 17:5 150:15 | e1 137:20 | 167:18 171:12 | 191:25 192:4 |
| 154:12 | e2 138:6, | 180:12 191:11 | effectively |
| duration | e3 138:6,21 | 211:2,5,22 | 223:3 236:3 |
| 247:14,15,20 | earlier 144:19 | 215:20 216:9 | effects 296:3 |
| 248:22,22 | 148:7 157:6 | 216:23,25 | 301:8 302:2 |
| 249:18,25 | 257:6 282 | 222:15 237:20 | efficient 207:3 |
| 250:1,21,21,22 | $\text { earliest } 32: 16$ | 239:9 249:7 | efforts 120:7 |
| 250:24 251:7 | early 258:17 | 290:13 | 136:15 201:25 |
| 268:20,25 | earnest 9:5 | easterly 215:18 | egl 22:13 |
| durations | 22:14 158:8 | eastward | eight 26:8 69:8 |
| 247:24 249:15 | earthstone | 239:11 | 107:3 172:22 |
| 306:1 | $22: 13,1523: 19$ | easy 74:2 85:4 | either 29:6 |
| duvall 12:13 | 36:7,10 | 184:11 237:19 | 56:17 64:23 |
| 68:11,16,25 | easier 148:6 | eckel 204:5 | 71:24 101:11 |
| duvall's 69:5 | 186:25 187:15 | economic 51:21 | 106:15 108:9 |
| 70:21 | 207:2 243:2 | 138:15 160:15 | 131:5 186:18 |

[either - especially]

| 189:16 233:7,9 | 312:11 | 199:8 205:10 | entities 110:9 |
| :---: | :---: | :---: | :---: |
| 263:3 270:2 | employee | 284:13 | 113:18 |
| 274:23 296:20 | 311:13 312:10 | engineer 20:7 | entitled 192:19 |
| 298:13 | encapsulates | 137:17 190:25 | 243:17 |
| election 145:6 | 252:9 | 197:14 208:22 | entity 68:23 |
| electric 226:21 | enclosed | 274:2 275:8 | 115:25 |
| electronic | 223:10,11 | 294:21 295:14 | entries 22:5,17 |
| 226:2 | encourage | 298:20 303:12 | 66:18 67:12 |
| element 258:11 | 27:22 | 309:12 | 117:15 149:17 |
| elements | encroaching | engineer's | 154:1 167:5 |
| 133:21 229:18 | 282:13 | 296:21 | entry 36:7 38:9 |
| 232:6 240:21 | endeavor 2:6 | engineering | 57:20 86:1 |
| 257:11 | 25:15,19 31:9 | 137:24 192:15 | 103:7 110:5 |
| eleven 211:15 | ends 252:7 | 192:23 199:8 | 117:6 158:6 |
| eliminating | 254:2 257:23 | 202:16,18,23 | 164:5 184:18 |
| 134:16 190:7 | 271:21 | 207:4 209:2,9 | 269:15 |
| elvis 118:1 | energy 1:2 2:6 | 298:8,14 303:2 | environmental |
| email 83:21 | 2:9,21 4:1 5:1 | 306:5 | 51:21 |
| 84:11 143:2,10 | 7:15,20 12:19 | enhanced | $\boldsymbol{\operatorname { e o g }} 22: 23$ 23:1 |
| 146:4 200:16 | 14:12 19:12 | 282:2 | 98:23 165:18 |
| emergencies | 21:4 22:18 | enhancing | 168:13 |
| 232:17 | 23:3,6 25:15 | 274:23 275:3 | eog's 53:20 |
| emergency | 25:19 26:8,12 | enlarge 63:13 | eor 303:3 |
| 221:6 259:25 | 32:24 33:2 | ensure 121:13 | equalize 253:23 |
| emission | 77:10,14 79:18 | enter 23:16 | equalizes |
| 138:19 | 80:7 85:23 | entered 50:14 | 253:20 |
| emissions | 86:1,3 103:3,5 | 58:6 111:5,14 | equally 181:25 |
| 134:17 | 103:19 105:11 | 113:18 150:8 | 268:4 |
| emphasize | 109:20 110:6,7 | entering 58:6 | equipment |
| 228:5 | 110:7 117:3 | entire 93:13 | 265:11 |
| employed | 164:5,8,9 | 137:15 196:24 | equivalent |
| 208:19 283:15 | 167:7 172:9,9 | 269:8 300:11 | 138:20 |
| 283:16 284:9 | 172:9,18 174:5 | 304:3 | es 311:4 |
| 284:16 311:11 | 185:21 190:18 | entirety 59:24 | especially |
| 311:14 312:8 | 192:7 194:1,18 | 304:21 | 44:21 183:11 |

[essence - examiner]

| essence 231:10 | 245:17 247:6 | 102:24 118:5 | 25:23 26:2,7,9 |
| :---: | :---: | :---: | :---: |
| 282:11 303:20 | 247:15,17,24 | 124:16 139:20 | 26:13,16,19,23 |
| essentially | 248:1,10,12,14 | 310:3 | 27:2 28:4,6 |
| 51:24 276:19 | 249:2,15,17 | evidence 57:11 | 30:10,13 31:2 |
| 277:12 295:14 | 250:17 251:6,8 | 66:9 76:24 | 31:13,14,17,20 |
| 296:4 301:10 | 251:11,12,21 | 80:8 85:3 | 31:22,24 32:1 |
| 304:17 | 252:2,10,11,23 | 95:25 102:21 | 32:6,8,13,17,21 |
| establish | 252:25 253:3 | 109:22 116:16 | 33:1,4,10,13,16 |
| 191:20 | 253:25 254:2 | 122:6 126:20 | 34:2,4,10,12,17 |
| establishing | 255:19,22 | 132:8 148:16 | 34:21 35:2,7 |
| 197:12 203:3 | 256:6,9,11,17 | 153:8 157:21 | 35:11,15,20,22 |
| estate 113:12 | 256:21 257:2,8 | 163:21 170:17 | 36:4,6,8,11,14 |
| estates 108:8 | 257:17,22,23 | 179:25 184:7 | 36:16,18,20,22 |
| estimate | 258:10,16 | 205:12 262:2 | 37:2,8,14,17,21 |
| 271:14 | 259:3 268:9,10 | 293:5 298:5 | 38:1,4,7,9,11 |
| estimated | 268:19 270:8 | 310:1 | 38:14 39:4,7,8 |
| 136:12 | 270:25 271:4 | exact 264:4 | 39:11,17,25 |
| et 40:20 196:3 | 271:21,25 | 292:10 | 40:3,6,9,17,23 |
| 201:1 | 272:14 275:9 | exactly 200:3 | 43:13 44:14,16 |
| evaluate | 280:11,12,12 | 274:11 278:6 | 45:3,5,10,16,20 |
| 267:20 | 280:19,21 | 301:9 302:5 | 45:25 46:13,15 |
| evaluates | 305:1 | examination | 46:17,19,25 |
| 296:11 | events 228:24 | 208:14 283:10 | 47:4,9,15,23 |
| evd 11:2,12 | 236:14 245:22 | examined | 48:4,5,15,18,20 |
| 12:1,10,18 | 246:2 247:1,2 | 65:14 198:14 | 48:23 49:2,9 |
| 13:1,13 14:1 | 247:4,13,20 | 199:15 208:8 | 49:14,20,23,25 |
| 14:11,19 15:1 | 248:11,17 | examiner 8:16 | 50:6,10,12 |
| 15:11 16:1,15 | 249:9 250:6,15 | 8:17,18,19 | 53:5,7,9,10,12 |
| 17:1,11 18:1 | 250:21 251:1 | 21:2,6,25 22:2 | 53:17,20 54:1 |
| 18:11 19:1,11 | 260:6 261:8,12 | 22:8,12,14,16 | 54:4,11 55:6,7 |
| 20:1 | 268:11 269:11 | 22:19,23 23:2 | 55:13,17,22 |
| evening 28:11 | 270:1 274:12 | 23:5,8,16 24:6 | 56:14,22,24,25 |
| event 228:25 | 280:18 | 24:8,10,17,19 | 57:12,13,16,19 |
| 229:8 230:18 | everybody | 24:20,24 25:6 | 57:24 58:3,10 |
| 244:25 245:14 | 23:11 44:21 | 25:11,15,18,20 | 58:13 61:21,23 |

Page 32
[examiner - examiner]

| $62: 15,18,20,22$ | $97: 3,8100: 4,6$ | $131: 18,22$ | $170: 2,5,19,23$ |
| :--- | :--- | :--- | :--- |
| $62: 23,2563: 3$ | $100: 8,9,15,19$ | $132: 1,10,12,15$ | $170: 25171: 2,5$ |
| $63: 4,10,11$ | $100: 22101: 2$ | $132: 19,23$ | $171: 25177: 12$ |
| $64: 3,14,15$ | $101: 12,21$ | $133: 1,17$ | $177: 14,16,18$ |
| $65: 2,4,8,15,19$ | $102: 3,7,11$ | $134: 24135: 4,9$ | $177: 20,24$ |
| $65: 2466: 1,10$ | $103: 1,6,8,11,13$ | $137: 21,25$ | $178: 2,6,10,15$ |
| $66: 11,17,20,22$ | $103: 17,20$ | $138: 2,25$ | $178: 24179: 4$ |
| $67: 1,5,6,10,11$ | $105: 14,16,23$ | $139: 11,15,23$ | $179: 14180: 2,5$ |
| $69: 271: 7$ | $105: 25106: 6$ | $140: 10,24$ | $180: 7,10182: 5$ |
| $72: 13,16,17,20$ | $106: 11,13,14$ | $141: 4,6,9$ | $182: 18,20,22$ |
| $72: 21,23,25$ | $106: 16,20$ | $142: 2,7,23$ | $182: 24183: 1$ |
| $73: 2,10,17,18$ | $107: 12108: 1$ | $143: 1,5,7,13,16$ | $183: 21184: 9$ |
| $73: 20,2374: 1$ | $108: 13,16,19$ | $143: 17,22,24$ | $184: 14,17,21$ |
| $74: 4,8,21,25$ | $109: 5,6,14,23$ | $144: 4,7,10,13$ | $184: 23185: 9$ |
| $75: 4,1176: 4$ | $109: 24110: 4,8$ | $144: 15,17$ | $185: 13,18,20$ |
| $76: 1477: 1,5,9$ | $110: 10,13,20$ | $145: 11,18,20$ | $185: 24186: 1,5$ |
| $77: 12,1679: 13$ | $110: 23112: 18$ | $146: 10,13,23$ | $187: 9,11,25$ |
| $79: 21,23,25$ | $112: 20,22,23$ | $147: 1,4,8,9,14$ | $188: 5,19,23,25$ |
| $80: 1,2,12,15,18$ | $112: 25113: 10$ | $147: 20148: 3$ | $189: 2,8,12,15$ |
| $80: 2283: 11,13$ | $113: 14,17,21$ | $148: 18,21,25$ | $189: 20190: 5$ |
| $83: 2584: 6,14$ | $113: 24114: 3,8$ | $149: 2,4,7,11,14$ | $190: 10,13,20$ |
| $84: 16,18,20$ | $114: 15,19$ | $149: 16,19$ | $190: 21,24$ |
| $85: 7,10,12,16$ | $115: 3,6,8,11,13$ | $152: 10,12,14$ | $194: 15,21,23$ |
| $85: 19,2586: 4$ | $115: 15116: 4,9$ | $152: 15,17,21$ | $195: 13,18$ |
| $86: 8,1189: 25$ | $116: 17,19,22$ | $153: 11,16,22$ | $196: 10,12,18$ |
| $90: 3,4,5,13,21$ | $117: 1,5,8,11,14$ | $153: 25154: 4$ | $196: 20197: 2,7$ |
| $90: 2491: 1,7$ | $122: 12,15,23$ | $156: 8,10,12,13$ | $197: 9,10,17,22$ |
| $91: 13,17,22$ | $123: 2,9,11,12$ | $156: 15,21,24$ | $198: 3,8,15,21$ |
| $92: 10,19,21$ | $123: 14,18$ | $157: 5,14,23$ | $199: 3,9,16,21$ |
| $93: 1,6,8,11,16$ | $124: 5,15,19,24$ | $158: 2,5,8,12,24$ | $199: 24200: 8$ |
| $93: 2194: 1,3,7$ | $125: 7,11,22$ | $159: 6,9,11,14$ | $200: 14,18,21$ |
| $94: 9,12,14,16$ | $126: 4,6,8,10,14$ | $162: 14,19,21$ | $201: 4,11,17$ |
| $94: 18,2295: 3$ | $126: 22127: 1,4$ | $163: 4,6,8,10,24$ | $202: 4,8,12,13$ |
| $95: 4,9,14,18,19$ | $130: 24131: 1,3$ | $164: 4,10,16,18$ | $202: 18,21,24$ |
| $96: 2,16,18,20$ | $131: 4,6,14,15$ | $167: 2,10,15$ | $203: 7,9,10,13$ |
|  |  |  |  |

Page 33
[examiner - exhibit]

| $203: 15,18,20$ | $298: 1,6,12,15$ | $161: 11166: 4$ | $53: 1555: 12,13$ |
| :--- | :---: | :---: | :--- |
| $203: 23,24$ | $298: 17,18$ | $168: 23172: 25$ | $57: 9,9,10$ |
| $204: 3,6,9,14,19$ | $299: 1,21,24$ | $175: 15176: 7$ | $60: 14,15,24$ |
| $204: 21,24$ | $300: 1,6301: 3$ | $221: 17231: 2$ | $61: 1,12,15$ |
| $205: 1,3,13,14$ | $301: 24302: 4$ | $238: 8240: 2$ | $62: 2,12,12,13$ |
| $205: 16,19,22$ | $302: 12303: 24$ | $251: 9$ | $66: 7,7,868: 19$ |
| $206: 2,25207: 6$ | $305: 9,21306: 8$ | exemption | $69: 5,11,12,14$ |
| $207: 9,11,14,18$ | $306: 17,20,22$ | $271: 12,15$ | $69: 23,24,24$ |
| $207: 22208: 2,9$ | $306: 24,25$ | exercise $278: 18$ | $70: 16,17,17,21$ |
| $208: 11209: 8$ | $307: 2308: 8,11$ | exhibit $11: 5,6,7$ | $71: 19,2172: 3$ |
| $209: 10212: 16$ | $308: 13,22$ | $11: 8,9,14,16,18$ | $72: 10,11,11$ |
| $261: 18,23$ | $309: 6,19,21,23$ | $12: 3,5,7,12,13$ | $76: 22,23,23$ |
| $262: 3,6,10,12$ | $310: 5,7$ | $12: 14,20,21$ | $78: 879: 3,18$ |
| $262: 14263: 5$ | examiners $21: 7$ | $13: 3,4,5,6,7,9$ | $79: 1980: 7,8$ |
| $263: 13,18$ | $77: 13173: 6$ | $13: 15,17,19,21$ | $81: 15,2082: 5$ |
| $264: 2,10265: 2$ | $184: 14240: 16$ | $14: 3,4,5,6,7,8$ | $82: 7,16,22,25$ |
| $265: 14266: 4,9$ | $284: 4294: 3$ | $14: 13,14,16,21$ | $83: 8,9,16,22$ |
| $267: 5,17268: 6$ | example | $14: 2215: 3,5,7$ | $85: 2,386: 14$ |
| $269: 5,12,20$ | $114: 23234: 16$ | $15: 13,14,15,16$ | $87: 18,2388: 18$ |
| $270: 3,11,17$ | exceed $282: 24$ | $15: 17,1916: 3$ | $88: 18,2589: 1$ |
| $271: 5,22272: 4$ | excel $274: 20$ | $16: 4,5,7,9,10$ | $89: 10,13,22,23$ |
| $272: 9,20$ | excellent $77: 9$ | $16: 12,17,19,20$ | $95: 23,2498: 4$ |
| $273: 15,21$ | 95:13 $208: 9$ | $16: 2117: 3,5,6$ | $98: 7,8,9,19,22$ |
| $274: 10275: 18$ | except 42:22 | $17: 7,8,13,15,16$ | $99: 13,20100: 1$ |
| $276: 8,18,22$ | $151: 14$ | $17: 17,1818: 3$ | $100: 2101: 3,6$ |
| $277: 1278: 5,21$ | exception | $18: 5,6,7,8,13$ | $101: 7,14,17,19$ |
| $279: 7,11,24,25$ | $210: 17$ | $18: 15,16,17,18$ | $101: 20,23$ |
| $280: 2,4,6,7,16$ | excess $201: 10$ | $19: 3,5,6,7,8,13$ | $102: 1,17,19,20$ |
| $281: 14282: 16$ | excessive | $19: 14,1520: 3$ | $104: 12,19,20$ |
| $283: 1,5,7$ | $233: 10$ | $20: 4,4,6,8,9$ | $104: 22,25$ |
| $285: 1,4294: 1$ | excited $80: 10$ | $39: 1542: 14,20$ | $105: 5,11,12,12$ |
| $294: 4,7,9,11,13$ | exciting $118: 6$ | $43: 1,4,9,11,15$ | $106: 21107: 2,4$ |
| $294: 14,16,18$ | exco $172: 13$ | $44: 11,1247: 19$ | $107: 8108: 2,14$ |
| $295: 4,5,9$ | excuse 44:3 | $51: 22,2452: 9$ | $108: 15,18,21$ |
| $296: 19297: 20$ | $69: 23125: 20$ | $52: 1253: 2,2,3$ | $109: 2,2,19,20$ |
|  |  |  |  |

Page 34
[exhibit - exhibits]

| $109: 21,21$ | $153: 7154: 11$ | $209: 16,18$ | $17: 9,1918: 9$ |
| :--- | :--- | :--- | :--- |
| $111: 21,23$ | $154: 12,18$ | $212: 24213: 10$ | $18: 1919: 9,16$ |
| $112: 5,15,16$ | $155: 3,10,14$ | $213: 16214: 1,4$ | $20: 1041: 6,19$ |
| $114: 4115: 4$ | $156: 5,6157: 19$ | $214: 7215: 6,13$ | $44: 945: 18$ |
| $116: 5,14,15,16$ | $157: 20160: 3,4$ | $215: 14219: 5$ | $51: 2552: 10,23$ |
| $118: 16,23$ | $160: 24161: 4$ | $219: 16222: 12$ | $57: 260: 19$ |
| $119: 6,7,11,14$ | $161: 19162: 11$ | $223: 16,20$ | $61: 2,8,24$ |
| $119: 16,21,23$ | $162: 12163: 19$ | $224: 4,6,6$ | $65: 2166: 3$ |
| $120: 4,5,9,23,25$ | $163: 20165: 6,7$ | $227: 7229: 14$ | $68: 6,7,7,9,12$ |
| $120: 25121: 4,7$ | $165: 16,18,22$ | $229: 15233: 13$ | $68: 1470: 15$ |
| $121: 9,16,19$ | $165: 25166: 13$ | $233: 17236: 25$ | $71: 1272: 5,5,6$ |
| $122: 2,9,10,10$ | $166: 23,24$ | $242: 8,12,13$ | $73: 976: 18$ |
| $124: 17126: 18$ | $168: 2,3,18,20$ | $243: 14244: 9$ | $79: 14,1480: 3$ |
| $126: 19,19$ | $169: 8,14$ | $245: 9246: 8,8$ | $81: 1682: 17$ |
| $128: 19129: 6,9$ | $170: 15,16$ | $251: 18261: 21$ | $83: 3,384: 24$ |
| $129: 11,17,22$ | $171: 19,20$ | $261: 21262: 1,1$ | $87: 1889: 5,17$ |
| $130: 2,5,11,14$ | $173: 6,12,15,17$ | $279: 19,20$ | $89: 1795: 21$ |
| $130: 21,22$ | $174: 3,10$ | $283: 24285: 15$ | $99: 22102: 15$ |
| $132: 7,8133: 18$ | $175: 11,12$ | $285: 19288: 19$ | $104: 11,13,18$ |
| $133: 19,21,23$ | $176: 8,22,24$ | $288: 20293: 2$ | $105: 8109: 17$ |
| $134: 8,22135: 9$ | $177: 9,10$ | $295: 6,6296: 7$ | $111: 24112: 11$ |
| $135: 13136: 14$ | $179: 23,24$ | $296: 9,24297: 9$ | $115: 18116: 11$ |
| $136: 17,22$ | $180: 19,21,21$ | $297: 10,11,18$ | $118: 25119: 1$ |
| $137: 16,20$ | $180: 25181: 1$ | $297: 21,22,23$ | $119: 25120: 11$ |
| $138: 7,21,25$ | $181: 14182: 3,4$ | $297: 23,24$ | $122: 5123: 4,22$ |
| $140: 4,15,16,16$ | $182: 15,16$ | $298: 4,4,5$ | $126: 15127: 13$ |
| $141: 2,2143: 3$ | $184: 5,6192: 17$ | $301: 14307: 18$ | $128: 20130: 6$ |
| $143: 3,18,20,25$ | $192: 22,25$ | $307: 18309: 9$ | $130: 17,17$ |
| $145: 22,23,25$ | $193: 1,3,3,5,15$ | $309: 10$ | $132: 4133: 18$ |
| $145: 25146: 5,8$ | $193: 18,24$ | exhibits $11: 10$ | $137: 8140: 11$ |
| $146: 9,11,16,17$ | $194: 3,4,5,6,18$ | $11: 15,17,20$ | $144: 21145: 4$ |
| $148: 13,15,15$ | $194: 19,19,25$ | $12: 4,6,8,16,22$ | $148: 11152: 1$ |
| $150: 13,13,14$ | $195: 17196: 25$ | $13: 11,2314: 9$ | $153: 2155: 21$ |
| $150: 24,25$ | $197: 16200: 5$ | $14: 17,2315: 9$ | $157: 16162: 2$ |
| $152: 7,8153: 6$ | $205: 10,11,11$ | $15: 2116: 13,22$ | $163: 11166: 22$ |
|  |  |  |  |
|  |  |  |  |

Page 35
[exhibits - factoring]

| 169:24 170:12 | expanded | 215:12 218:9 | 50:17,22 51:6 |
| :---: | :---: | :---: | :---: |
| 174:20 177:7 | 210:23 223:13 | 219:7 228:14 | 51:16 53:2 |
| 179:16 182:13 | 239:10 | 229:18 240:15 | 55:2 57:9 |
| 183:3,25 | expanding | 240:21 246:13 | 82:25 83:9 |
| 190:15 192:16 | 210:1 | 259:17 285:23 | 85:3 100:2 |
| 192:24 194:2 | expansion | 307:5 | 102:20 130:14 |
| 195:22 205:5 | 206:18 218:13 | explains 134:11 | 130:22 132:8 |
| 209:15 212:15 | 218:13 227:15 | 134:18 138:4 | 138:25 143:18 |
| 213:7 224:8 | 230:7 241:5 | 219:9 | 145:22 146:5 |
| 261:14,20 | expect $24: 4$ | explanation | 146:11 202:9 |
| 296:6,8,11,22 | expected | 47:19 72:4 | faces 291:12 |
| 296:23 298:2 | 138:18 | exploration | facilitate |
| 301:5,6 309:25 | expecting | 193:25 284:11 | 214:15,17 |
| existence | 106:7 | exposure | 215:2 |
| 186:12 | expedited | 281:16 | facilities 51:20 |
| existing 78:14 | 259:14,15 | extend 8:8 | 60:2,13,16 |
| 87:21 121:10 | experience | 150:2 206:12 | 61:9 63:25 |
| 128:24 129:1 | 75:19 137:19 | 210:13 309:2 | 137:17,23 |
| 159:22 181:18 | 283:21 284:4 | extended | 138:8,18,23 |
| 186:8,9,16,17 | experienced | 280:11,12,18 | 141:12 142:9 |
| 203:3 206:4,13 | 78:21 | extending 79:1 | 160:14 175:8,9 |
| 206:16,21 | experiencing | extension 4:3 | 192:10 196:13 |
| 210:18 212:5 | 228:23 | 77:22 78:6,15 | 219:7 220:9 |
| 216:2 222:21 | expert 61:20 | 79:1 150:11,18 | facility 219:6 |
| 227:14,21 | 68:25 71:6 | exterior 243:11 | 219:24 220:1,7 |
| 230:6 234:11 | 78:11 98:12 | extra 309:10 | facility's |
| 235:1 236:8 | 99:1 137:23,24 | eye 237:15 | 222:13 |
| 237:21 238:15 | 209:2,9 285:2 | eyeballing | fact 63:19 |
| 238:17 239:14 | experts 118:21 | 252:19 | 75:21 117:22 |
| 240:4 260:10 | expirations | eyeing 272:17 | 151:4 171:6 |
| 301:14 | 107:21 | f | 172:18 300:7 |
| exists 78:14 | expire $88: 2,12$ | f $3: 1011: 13$ | factored |
| expand 8:3 | explain 48:11 |  | 264:19 |
| 206:5 209:23 | 75:11 86:13 | $15: 19 \text { 16:10 }$ | factoring 265:8 |
| 259:9 309:1 | 186:3 209:19 | 48:17 50:11,15 |  |

[fair - finally]

| fair $42: 13$ | faulting $82: 19$ | feet $27: 14$ | filed $21: 14$ |
| :---: | :---: | :---: | :--- |
| $155: 1 \quad 160: 23$ | $89: 899: 7$ | $28: 17,2329: 3$ | $27: 18,2033: 22$ |
| $165: 20173: 1$ | $120: 15130: 8$ | $59: 10104: 6$ | $34: 637: 338: 3$ |
| $176: 6265: 16$ | $293: 5299: 5$ | $171: 16193: 11$ | $43: 368: 6,7,9$ |
| fairly $107: 24$ | faults $290: 13$ | $217: 22,24$ | $69: 672: 6$ |
| 201:13 $252: 16$ | favored $161: 9$ | $218: 1247: 3$ | $83: 2298: 5$ |
| faith 78:17 | $176: 12$ | $248: 10,14$ | $110: 14120: 1$ |
| fall $54: 14229: 2$ | favorite $117: 21$ | $249: 13287: 5,6$ | $123: 16124: 1$ |
| $240: 12254: 16$ | fe $1: 48: 21$ | $287: 14,15,25$ | $133: 17135: 6$ |
| $286: 15$ | $22: 1023: 5$ | $288: 1,14,16$ | $140: 11146: 2$ |
| familiar $78: 9$ | $25: 1426: 10$ | $290: 19,22,25$ | $151: 3,4,12$ |
| $209: 5284: 19$ | $33: 1,1336: 9$ | $291: 3$ | $158: 18159: 2$ |
| $301: 21302: 8$ | $38: 1277: 13$ | felt $151: 14$ | $180: 18185: 7$ |
| fan $154: 9$ | $80: 1685: 17$ | fewer $134: 15$ | $186: 6,10188: 7$ |
| fancy $221: 24$ | $103: 9117: 9$ | field $280: 24$ | $209: 6,15,17$ |
| $262: 17$ | $127: 2$ | $284: 10298: 21$ | $226: 6242: 24$ |
| far $28: 12$ | features $224: 11$ | figure $40: 18$ | $284: 20$ |
| $186: 25225: 25$ | february $82: 24$ | $277: 3$ | files $93: 4$ |
| $231: 4264: 3$ | $83: 1192: 20$ | figures $264: 4$ | filing $33: 24$ |
| $265: 15301: 12$ | $252: 8,8257: 24$ | file $25: 21,24$ | $39: 2241: 4$ |
| farley $12: 13$ | $258: 13$ | $31: 5,9,10$ | $84: 1,3,11$ |
| 68:11,16 | fed $51: 4,14$ | $34: 18,2335: 2$ | $90: 1792: 4$ |
| fashion $281: 3$ | $59: 2,998: 1,3$ | $38: 239: 13$ | $95: 8120: 3$ |
| $281: 15$ | $111: 12133: 13$ | $43: 13,2085: 1$ | $123: 22140: 13$ |
| fasken $103: 7,10$ | federal $54: 25$ | $92: 4,893: 25$ | $147: 2$ |
| $103: 11,15$ | $78: 2,19144: 5$ | $95: 11,12$ | filings $118: 1$ |
| $104: 21105: 3$ | $161: 17,23$ | $140: 15143: 21$ | filled $279: 1$ |
| $105: 15107: 17$ | $179: 6$ | $143: 23145: 4$ | filtered $266: 24$ |
| $107: 24117: 7$ | feds $60: 18$ | $146: 7148: 14$ | final $43: 946: 24$ |
| $117: 10,12$ | $142: 20$ | $152: 2156: 2$ | $53: 21140: 16$ |
| $122: 13$ | fee $86: 2587: 1,7$ | $157: 24158: 17$ | $221: 8,8223: 4$ |
| fasken's $105: 19$ | $87: 7104: 2,6$ | $158: 21159: 5$ | $288: 2$ |
| faster $207: 2$ | $142: 17$ | $162: 8178: 12$ | finalize $107: 18$ |
| fat $117: 25$ | feel $185: 18$ | $226: 4306: 5$ | finally $52: 12,19$ |
|  |  | $62: 2,8112: 8$ |  |
|  |  |  |  |

[finally - form]

| $119: 14120: 5$ | $129: 7139: 6$ | fix $28: 13$ | followed $82: 15$ |
| :---: | :--- | :--- | :--- |
| $121: 9,16$ | $142: 5151: 1$ | flaming $59: 2,9$ | $88: 19,2499: 18$ |
| $169: 21210: 12$ | $159: 21160: 1$ | $59: 2267: 15$ | $129: 21130: 4$ |
| $216: 8217: 4,13$ | $161: 20162: 2$ | flare $221: 5$ | following $82: 5$ |
| $231: 12234: 20$ | $164: 19168: 23$ | $222: 7232: 17$ | $88: 1798: 1$ |
| $241: 17251: 6$ | $170: 3171: 7,16$ | flaring $221: 6$ | $206: 4209: 25$ |
| $253: 13255: 20$ | $180: 14189: 5$ | $260: 1,1$ | $229: 10233: 16$ |
| $257: 1258: 11$ | $191: 25192: 17$ | fletcher $12: 6$ | $244: 25257: 20$ |
| $291: 1,25$ | $198: 12199: 13$ | $61: 13,13,20$ | $261: 10271: 7$ |
| $296: 18297: 18$ | $208: 6,12$ | fletcher's $61: 16$ | $271: 24272: 2$ |
| financial $43: 24$ | $209: 25,25$ | $61: 24$ | $272: 14297: 14$ |
| financially | $211: 1212: 13$ | flexibility | $308: 1$ |
| $311: 15312: 11$ | $214: 23215: 24$ | $60: 13$ | follows $65: 14$ |
| find $36: 143: 19$ | $217: 3220: 16$ | float $254: 10$ | $198: 14199: 15$ |
| $55: 2156: 21$ | $222: 1,19$ | flow $220: 23,24$ | $208: 8$ |
| $64: 2394: 21,23$ | $224: 15233: 24$ | $221: 9,20$ | foot $27: 11,15$ |
| $109: 1,13125: 5$ | $234: 2,3,7,14$ | $225: 22226: 23$ | $171: 18231: 11$ |
| $170: 21197: 11$ | $237: 8,14$ | $228: 8252: 13$ | footage $129: 25$ |
| $203: 4$ | $250: 16254: 6$ | $252: 16254: 7$ | force $41: 9$ |
| finding $204: 18$ | $268: 19269: 22$ | $254: 14291: 16$ | $150: 16154: 5$ |
| fine $25: 356: 23$ | $276: 13,13,19$ | fluids $220: 23$ | $154: 23164: 20$ |
| $73: 1977: 8$ | $276: 19280: 16$ | $220: 25254: 13$ | $164: 25167: 19$ |
| $108: 19109: 7$ | $285: 14286: 21$ | $258: 1$ | $171: 10$ |
| $115: 10131: 23$ | $287: 8,11289: 7$ | fly $53: 25$ | foregoing |
| $149: 6189: 21$ | $289: 9290: 16$ | fob $49: 17$ | $311: 3,4312: 4$ |
| $266: 10279: 15$ | $290: 20,21$ | focus $239: 1$ | foresee $282: 23$ |
| finished $41: 2$ | $291: 6292: 10$ | $252: 12257: 12$ | foreseeable |
| fire $278: 19$ | $301: 20304: 1$ | focused $269: 22$ | $267: 3$ |
| firm $52: 14$ | $304: 21$ | focusing | forgot $39: 14$ |
| first $28: 934: 19$ | fisher $63: 6$ | $220: 12240: 3$ | $48: 1148: 19$ |
| $39: 1344: 17$ | fitting $75: 5$ | folks $157: 7$ | $284: 3$ |
| $54: 6,1265: 12$ | five $114: 11,17$ | $178: 3188: 15$ | form $42: 25$ |
| $74: 1775: 14$ | $114: 24,24,25$ | follow $129: 24$ | $98: 18173: 23$ |
| $77: 699: 4,10$ | $124: 20197: 3$ | $188: 14213: 4$ | $174: 1225: 10$ |
| $99: 10127: 14$ | $197: 15204: 10$ |  |  |
|  |  |  |  |

[format - garcia]

| format 292:10 | forth 57:5 | frankly 186:25 | 294:2,15 |
| :---: | :---: | :---: | :---: |
| formation | 213:23 246:17 | free 31:11 | 300:15 301:4 |
| 77:24 80:23 | forward 24:5 | frequency | 308:12,14,19 |
| 97:15 103:22 | 39:6 50:4,7 | 270:24 271:2 | 311:12 312:9 |
| 118:10 120:21 | 58:1,4 66:23 | frequently | future 187:15 |
| 121:6 127:12 | 67:778:25 | 76:12 | 199:22 267:3 |
| 133:5,6 139:8 | 86:6 107:20 | fresh 243:4 | 286:14 |
| 139:14 147:18 | 132:21 164:13 | 292:23 | fyi $124: 4$ |
| 164:20 167:16 | 185:12 187:1 | freshwater | g |
| 171:8,9 186:7 | 245:3 276:4 | 291:22,24 | g 16:12 21:1 |
| 194:6 201:20 | 277:20 | 292:2 | $133: 18 \text { 140:4 }$ |
| 206:9 210:7 | found 201:7 | front 260:8 | 140:16 141:3 |
| 211:16 231:14 | 239:19 240:7 | 295:12 301:25 | 143:21 145:23 |
| 231:19,23,25 | 241:1,8 260:19 | frozen 200:17 | 146:6,8,17 |
| 235:8 243:25 | 260:22 261:9 | ftp 220:16 | 148:16 154:20 |
| 262:23 279:15 | 261:11 293:5 | fulfilling 65:21 | 198:7 |
| 280:13 281:17 | four $2: 1644: 24$ | full 135:1,7 | gamma 99:11 |
| 286:21 287:9 | 45:7 63:5,7 | 196:7 208:16 | 286:8 |
| 287:17 288:4 | 79:6 88:19 | 256:2 283:13 | $\text { gap } 187: 21,24$ |
| 290:7,12,24 | 119:7 124:6 | fully 93:3 | 188:7 |
| 291:9,13,17,20 | 133:15 142:21 | fulton 8:22 | garcia 8:17 |
| 292:5,11 | 151:10 155:11 | 311:2,21 | 21:7,24,25 |
| 295:25 | 165:17 169:9,9 | fun 106:5 118:3 | 44:15,16 45:3 |
| formations | 189:10 196:24 | funny $42: 23$ | 45:5,10,16,20 |
| 58:16 71:17 | 199:22 227:21 | 122:20 | $45: 25 \text { 46:13,18 }$ |
| 99:4,11 111:6 | 230:14 234:10 | further 30:25 | 53:6,7 62:19 |
| 135:12 137:10 | 246:25 247:2 | 75:1 76:16 | 62:20 66:20 |
| 145:17 147:7 | 252:20 253:17 | 100:20 105:15 | 72:22,23 73:2 |
| 233:1 282:10 | fourteen 250:6 | 105:21 122:3,4 | 73:17,20 74:1 |
| 282:15 291:7 | frack 29:16 | 142:25 144:16 | 74:7 75:8 |
| formatting | fractional | 145:19 147:5 | 79:22,23 80:15 |
| 250:23 | 73:24 | 179:9 189:23 | 83:12,13 84:12 |
| former 117:19 | fracture 295:25 | 216:23 228:23 | 84:14,21 85:16 |
| formula 244:24 | frame $125: 14$ | 230:13 277:17 | $90: 4,5,12,13,24$ |
| 245:1 | 280:14 308:16 | 282:18 291:14 | 91:7,13,17,22 |

Page 39
[garcia - geologic]

| $92: 10,19$ 93:1 | 294:11 306:21 | $232: 25233: 2,4$ | $266: 20,22,23$ |
| :--- | :---: | :--- | :--- |
| $93: 8,11,16,22$ | 306:22 | $233: 9,14234: 4$ | $267: 9,19268: 3$ |
| $94: 1,11,12,18$ | garcia's $117: 19$ | $234: 4,6,8,11,12$ | $268: 4269: 2$ |
| $95: 496: 24$ | garner $19: 14$ | $234: 13,17,20$ | $270: 21271: 21$ |
| $100: 5,6105: 24$ | $193: 25194: 16$ | $234: 22,25$ | $273: 19274: 18$ |
| $105: 25106: 6$ | $195: 16197: 25$ | $235: 20,22$ | $274: 24275: 4,6$ |
| $106: 11112: 19$ | $197: 25198: 1,3$ | $236: 4,4,12,14$ | $275: 12276: 12$ |
| $112: 20122: 14$ | $198: 6,6,11$ | $237: 21,21$ | $276: 16281: 2,8$ |
| $122: 15,23$ | garner's $194: 3$ | $239: 9,14240: 4$ | $281: 21,22$ |
| $123: 2,9,18$ | $194: 9$ | $240: 5242: 20$ | $282: 7,8291: 16$ |
| $126: 2,6127: 1$ | gas $8: 4158: 6,7$ | $244: 19,20,24$ | $291: 23292: 19$ |
| $130: 25131: 1$ | $158: 9171: 13$ | $244: 25245: 1,6$ | $292: 23303: 3$ |
| $141: 8,9142: 2$ | $172: 10192: 8$ | $245: 7,13,14,16$ | $308: 4,6$ |
| $142: 7,12,23$ | $192: 11,14$ | $247: 3,7,8,13$ | gaslib $220: 21$ |
| $143: 4,7,11,17$ | $206: 6,9209: 24$ | $248: 6,10,14,14$ | gather $23: 11$ |
| $143: 22144: 12$ | $210: 4,6211: 11$ | $249: 2,7,8,11,13$ | gathering |
| $144: 15148: 19$ | $214: 6,13216: 2$ | $250: 1251: 11$ | $219: 19222: 10$ |
| $148: 21149: 2$ | $216: 5217: 7,9$ | $251: 20252: 12$ | $232: 25234: 6$ |
| $152: 11,12$ | $217: 11218: 7$ | $252: 16,20,22$ | $244: 20277: 3$ |
| $156: 9,10$ | $218: 12219: 17$ | $252: 23,24$ | gears $184: 10$ |
| $162: 20,21$ | $219: 19,20,20$ | $253: 8254: 2,3$ | general $29: 15$ |
| $163: 4170: 6,6$ | $220: 8,14221: 1$ | $254: 7,18255: 1$ | $75: 1898: 17$ |
| $177: 13,14$ | $221: 1,2,6,9,11$ | $255: 21,23$ | $119: 4121: 1$ |
| $178: 3,6,15,24$ | $221: 13,22$ | $256: 8,10,12,14$ | $137: 7217: 18$ |
| $182: 19,20$ | $222: 1,8,10,21$ | $256: 15,15$ | $241: 9262: 17$ |
| $187: 10,11,25$ | $222: 22,25$ | $257: 7,8,9,9,10$ | $264: 8,12$ |
| $188: 5,13,19$ | $223: 4,5225: 22$ | $257: 25258: 3,5$ | $285: 25300: 19$ |
| $194: 22,23$ | $226: 9,16,22,23$ | $258: 5,6,8,9,14$ | generally |
| $195: 13,18$ | $226: 25227: 4$ | $258: 15,18,22$ | $227: 12240: 21$ |
| $196: 21203: 7$ | $227: 21,24$ | $258: 23260: 4$ | $271: 9$ |
| $203: 10,13,15$ | $228: 3,6,7,19$ | $260: 11,21$ | generating |
| $203: 19,20,24$ | $229: 25230: 18$ | $261: 12262: 22$ | $274: 13$ |
| $204: 6,14,18,19$ | $231: 17,22$ | $263: 14264: 21$ | gentlemen $92: 2$ |
| $204: 22,24$ | $232: 9,11,15,22$ | $264: 24,25$ | geologic $82: 20$ |
| $280: 3,4294: 10$ | $232: 23,24,24$ | $265: 5,17,21,22$ | $89: 899: 7$ |
|  |  |  |  |
|  |  |  |  |

Page 40
[geologic - going]

| 120:13,15 | george 81:6 | 31:6 39:23 | 66:23 67:7 |
| :---: | :---: | :---: | :---: |
| 130:9 202:14 | 82:4 93:14 | 40:4,12 41:1 | 86:6 88:2 |
| 202:16 291:4 | 94:5,10 | 54:9 86:14 | 90:20 92:17 |
| 293:4 300:23 | geoscientist | 104:20 108:24 | 94:23 95:15 |
| geologist 18:16 | 61:18 | 109:2 125:5 | 106:4 107:20 |
| 42:4 47:16,19 | getting 35:23 | 127:10 152:22 | 118:10 119:25 |
| 48:11 68:13 | 76:9 108:2 | 157:7 158:23 | 122:7 123:19 |
| 70:24 71:4,6 | 123:16 124:1 | 164:18 170:3 | 132:21 143:20 |
| 81:11 87:13 | 213:2 266:14 | 178:4,9,21 | 144:20 162:15 |
| 118:20 120:10 | gilbertson 15:6 | 183:15 185:3 | 164:12 167:13 |
| 128:16 136:23 | 118:20 120:11 | 185:14,17 | 178:8 184:10 |
| 155:4 161:5 | 120:14 121:1 | 186:25 196:22 | 191:2 195:4 |
| 165:23 168:21 | gilbertson's | 221:1,7 224:9 | 200:4 209:14 |
| 173:7 181:15 | 120:18 121:11 | 228:13 237:12 | 212:4,11,12,16 |
| 191:1 263:10 | give 96:4 | 239:25 250:10 | 212:18 213:17 |
| 283:8,16,22 | 143:14 162:6 | 250:17 252:21 | 214:4 217:1 |
| 284:5,9,14,17 | 200:14 214:15 | 252:21 264:23 | 219:4 223:19 |
| 293:9,15 | 224:5 244:23 | 272:16 273:22 | 224:5 236:24 |
| geologist's | 250:10 259:18 | 276:8,11,13,13 | 240:17,17 |
| 176:8 | 285:25 301:4 | 276:14 295:12 | 242:15 245:3 |
| geology 11:16 | given 28:16 | 298:13,17 | 245:13,15 |
| 12:5 14:14 | 45:2 64:21 | 305:17 | 246:7 250:10 |
| 52:9,10 61:12 | 76:2 97:23 | goal 190:11,12 | 253:1,2,8 |
| 61:17,20,24 | 161:18 162:9 | god 54:9 | 262:7 265:19 |
| 68:14 71:3,11 | 174:10 280:20 | goes 254:5 | 266:6,6,14,19 |
| 98:23 99:6 | gives 168:14 | 307:20 | 270:4 271:6,23 |
| 104:22 136:25 | giving 31:11 | going 25:2 27:7 | 272:10 274:12 |
| 137:13 192:15 | 207:15 | 27:25 29:13 | 274:25 275:11 |
| 193:24,25 | glimpse 259:2 | 31:3,3 35:25 | 275:20 277:20 |
| 195:17 202:22 | glitch 53:13 | 37:9 39:6 | 278:6 280:21 |
| 284:7,8,21,24 | 54:5 83:14 | 40:10,11,12,25 | 281:23 283:2 |
| 285:3,9,25 | 90:20 | 43:10,18 44:1 | 284:2 285:13 |
| 292:15,19 | glitches 123:15 | 49:12 50:4,7 | 286:18 288:19 |
| 293:11 299:3 | go 21:23 22:21 | 53:25 55:5 | 289:4 290:14 |
|  | 24:2,5 27:23 | 58:1 60:17 | 299:2 300:12 |

Page 41
[going - guys]

| 302:22 303:16 | gotten 43:3 | 275:1 | 178:7 187:11 |
| :---: | :---: | :---: | :---: |
| 306:12 | 57:7 109:11 | green 39:20 | 187:20 195:2,7 |
| gold 133:13,15 | 183:13 | 44:25 99:18 | 195:7 202:25 |
| good 22:7,12 | government | 101:18 125:24 | 236:8 260:14 |
| 22:25 23:4,15 | 54:25 161:17 | 152:4,22 | 266:1 267:9,18 |
| 25:11,17 26:9 | gradient | 155:20 166:17 | 270:12,14 |
| 26:15,19 31:19 | 230:23 231:8 | 169:20 182:8 | 272:21,24 |
| 32:25 33:12 | 231:18,20 | 195:4 200:7 | 273:10 274:25 |
| 36:12,19 49:22 | 282:9 | 220:18,19,24 | 275:21 276:4 |
| 55:23 57:21 | gradients | 231:12,13 | 277:12 278:13 |
| 66:14,19 77:11 | 231:11 | 238:18 240:6 | 278:13 285:13 |
| 77:12 78:7,13 | grain 238:5,5 | greg 12:14 | 292:13 296:19 |
| 78:14,17 80:14 | grande 86:25 | 68:13 70:24 | 298:6 299:2,10 |
| 85:15,22 96:23 | 87:1,6,7,22 | grey 203:4 | 299:15 301:4 |
| 116:25 126:25 | 165:5 167:24 | gross 71:15 | 301:20 303:20 |
| 146:10 151:14 | grant 31:7 | 176:13 248:22 | 305:10 306:13 |
| 163:5 184:13 | 78:15 | 250:20 268:12 | 308:16 |
| 184:14 190:19 | granted 2:3 | 268:20 | guest 262:11 |
| 206:1 264:3 | 63:21 64:1 | group 22:22 | guidance 226:8 |
| 266:21,21 | granting | 44:21 117:3 | 229:10,20,24 |
| 268:7 269:16 | 293:22 | 185:5 | 232:7 233:4,5 |
| 272:5 274:7 | graph 270:14 | grouped 222:9 | 236:20 244:8 |
| 293:21 300:17 | 306:10 | groups 33:5 | 244:13,22 |
| 300:17 302:19 | graphed | 169:10 | 297:2 307:13 |
| 305:17 | 270:13 | growing 166:8 | guide 213:21 |
| goodness 48:23 | gray 231:8 | grows 53:21 | 246:10 |
| 85:9 240:16 | 249:23 252:12 | guarantee | guidelines |
| goofing 127:7 | great 30:6 | 205:7 | 211:10,11 |
| gor 257:7 | 65:20 77:4 | guess 21:14 | 243:8 |
| 258:22 272:21 | 102:25 109:9 | 34:22 44:17 | gun 121:4 |
| 275:9,20 | 144:8 204:21 | 45:6 50:3 73:8 | 215:1,8,9,15,15 |
| 276:12 | 226:7 278:18 | 73:22 90:5,17 | 216:19 |
| gosh 62:25 | 310:4 | 91:4 92:11,13 | guys 49:7 120:2 |
| gosier 110:6 | greater 202:10 | 108:3,20 | 228:12 298:20 |
|  | 228:24 269:2 | 131:12 149:3 | 305:16 |

[h - heard]

| h | hand 65:9 | hard 131:8 | 182:22,24 |
| :---: | :---: | :---: | :---: |
| h 11:1 87:7 | 198:9 199:10 | 241:3 253:25 | 188:24,25 |
| 207:25 | 208:3 216:25 | 299:10 | 196:11,12,18 |
| half $41: 9,11$ | 219:25 221:14 | hardy 11:19 | 204:22 205:1 |
| 45:7,12,12,13 | 221:15 225:2 | 52:14 | 280:6,7 281:14 |
| 45:22,22 47:22 | 231:7 242:25 | harkey 262:23 | 282:16 283:1 |
| 47:24 50:19 | 246:22 247:9 | 263:1,3,6 | 294:13,14 |
| 51:1,10 59:11 | 249:20 252:14 | 279:15 288:3,5 | 306:24,25 |
| 59:11 60:6,6 | handful 260:11 | harm 192:7 | harrison's |
| 77:24 81:3,3 | handle 196:14 | 194:13 233:7 | 143:10 |
| 86:23 87:5,20 | 196:17 | harris 21:8 | hart 22:11 |
| 89:2,4,6 97:16 | hanna 13:5 | harrison 8:18 | 25:14 26:11 |
| 97:16,17,18,18 | 81:10 | 21:8 46:16,17 | 33:14 36:9 |
| 97:19,21,22,22 | hapl 68:24 | 53:9,11 62:22 | 38:12 66:21 |
| 97:22 103:24 | happen 182:6 | 62:23 66:20 | 80:16 85:17 |
| 104:8,8,8,8 | 252:24 253:5 | 74:5,8,21,25 | 103:9 117:9 |
| 111:8,8,9,9 | happened | 75:3 79:25 | 127:2 |
| 118:13 128:2,3 | 27:10 49:11 | 80:1,15 84:12 | hay 59:16 |
| 128:3,9,10,10 | 92:7 151:21 | 84:17,18 85:16 | hazards 99:7 |
| 147:22 150:4,4 | 159:4 189:16 | 94:14,20,22 | head 85:5 |
| 150:5 151:18 | 222:19 227:17 | 96:24 100:8,9 | 106:5 148:4 |
| 154:5,6 159:17 | 246:20 247:13 | 100:15,19 | 255:3 278:24 |
| 159:18 164:21 | 251:21 279:8 | 106:13,14 | 278:25 279:4 |
| 164:21,22,22 | happening | 112:22,23 | headache 163:2 |
| 164:25,25 | 200:16 260:5,6 | 123:11,12 | heads 280:20 |
| 165:1,1 167:17 | happens | 126:2,4 127:1 | headset 49:15 |
| 167:17,18,18 | 107:13 294:23 | 131:3,4 143:4 | hear 48:18,21 |
| 167:20,20,20 | happy $72: 7$ | 143:5,13 | 49:3,3,4,5,7,8,9 |
| 167:21 171:12 | 77:2 80:6 | 144:12,13,16 | 49:11 177:13 |
| 175:1 180:11 | 83:20 85:5 | 144:17 145:3 | 177:15 198:1 |
| 180:12 211:3,3 | 95:7 102:23 | 145:11,15,18 | 267:10 281:19 |
| 236:21 239:3,4 | 120:3 125:16 | 152:14,15 | 306:15 |
| 239:9 240:8,13 | 125:17,19 | 156:12,13 | heard 34:9 |
| 241:1 243:11 | 144:9 298:9 | 163:7,8 170:6 | 67:16 103:12 |
| 248:2 |  | 177:17,18 | 117:12 148:23 |

Page 43
[heard - hearing]

| $151: 10167: 5$ | $49: 2,9,14,20,25$ | $95: 9,14,17,19$ | $141: 4,6143: 1$ |
| :--- | :--- | :--- | :--- |
| $171: 24172: 17$ | $50: 1,2,1052: 2$ | $96: 2,15,18,20$ | $143: 16,24$ |
| 177:16 | $53: 5,9,12,17,20$ | $97: 3,8,10$ | $144: 7,10$ |
| hearing 1:6 7:8 | $54: 1,4,11,13$ | $100: 4,8,22$ | $145: 20146: 10$ |
| $8: 13,1612: 20$ | $55: 7,13,17,22$ | $101: 2,12,21$ | $146: 13,23$ |
| $21: 2,6,2022: 2$ | $56: 4,7,10,14,22$ | $102: 3,7,11,14$ | $147: 1,4,9,14,20$ |
| $22: 12,16,23$ | $56: 2557: 2,13$ | $103: 1,6,11,17$ | $148: 3,18,25$ |
| $23: 2,824: 6,10$ | $57: 19,2458: 10$ | $103: 19104: 16$ | $149: 4,7,11,16$ |
| $24: 17,20,21$ | $61: 3,21,21$ | $105: 14,23$ | $149: 18152: 10$ |
| $25: 6,15,18,18$ | $62: 15,18,22,25$ | $106: 13,16,20$ | $152: 14,17,21$ |
| $25: 2026: 2,3,7$ | $63: 4,1164: 3$ | $107: 12,20$ | $153: 1,11,16,22$ |
| $26: 13,19,23,24$ | $64: 1565: 4,8$ | $108: 1,13,19$ | $153: 25154: 2$ |
| $27: 1,21,23$ | $65: 15,1966: 1$ | $109: 6,14,16,24$ | $156: 8,12,15,21$ |
| $28: 430: 8,10$ | $66: 3,11,17,19$ | $110: 4,10,13,20$ | $156: 24157: 5$ |
| $31: 2,14,17,22$ | $66: 2267: 1,6$ | $110: 22111: 25$ | $157: 14,16,23$ |
| $32: 1,2,4,8,9,11$ | $67: 11,1369: 2$ | $112: 18,22,25$ | $158: 2,5,10,12$ |
| $32: 13,17,18,21$ | $69: 271: 7,8$ | $113: 10,14,21$ | $158: 16,24$ |
| $33: 4,10,16,18$ | $72: 13,17,21,25$ | $113: 24114: 3,8$ | $159: 5,6,11,12$ |
| $33: 2234: 2,5$ | $73: 10,18,23$ | $114: 15,19$ | $162: 9,14,19$ |
| $34: 10,15,17,25$ | $74: 475: 4,11$ | $115: 3,6,8,13,15$ | $163: 6,10,24$ |
| $35: 2,3,7,9,11$ | $76: 4,14,18$ | $116: 4,9,11,19$ | $164: 4,10,12,16$ |
| $35: 15,16,18,20$ | $77: 1,5,9,12,16$ | $116: 22117: 1,5$ | $167: 2,10170: 2$ |
| $35: 22,23,24$ | $77: 1778: 5,8$ | $117: 11,14,15$ | $170: 5,9,19,23$ |
| $36: 6,11,14,18$ | $79: 3,4,13,21,25$ | $120: 4122: 1,12$ | $171: 2,4,25$ |
| $36: 22,24,25$ | $80: 2,12,14,18$ | $123: 11,14$ | $173: 11177: 12$ |
| $37: 8,13,14,17$ | $80: 20,2183: 11$ | $124: 5,15,19,24$ | $177: 16,20,24$ |
| $37: 21,2238: 1$ | $83: 21,2584: 6$ | $125: 7,9,11,22$ | $178: 2179: 4,14$ |
| $38: 4,9,14,16,17$ | $84: 16,20,23$ | $126: 8,10,11,14$ | $179: 16180: 2,7$ |
| $38: 18,2039: 4$ | $85: 7,10,12,16$ | $126: 14,22,25$ | $180: 8182: 18$ |
| $39: 8,9,17,23,25$ | $85: 19,2586: 4$ | $127: 4,6130: 24$ | $182: 22183: 1$ |
| $40: 3,6,9,17,23$ | $86: 8,1089: 25$ | $131: 3,6,14,15$ | $183: 21,25$ |
| $43: 844: 8,14$ | $90: 4,19,21$ | $131: 18,22$ | $184: 9,13,17,20$ |
| $46: 12,15,19,25$ | $91: 192: 18,21$ | $132: 1,4,10,15$ | $184: 23,25$ |
| $47: 4,9,15,23$ | $93: 6,10,21$ | $132: 19,23,25$ | $185: 9,13,20$ |
| $48: 5,6,15,20,23$ | $94: 3,7,9,16$ | $137: 25,25$ | $186: 1,3,19$ |
|  |  |  |  |
|  |  |  |  |

Page 44
[hearing - horizontal]

| 187:9 188:14 | 310:5,7 | 256:13 296:16 | holdings |
| :---: | :---: | :---: | :---: |
| 188:23 189:2,8 | hearings 21:3 | 305:2 309:15 | 144:23 145:5 |
| 189:12,15,20 | 35:25 149:12 | 309:15 | hole 104:3,4 |
| 190:5,10,13,14 | 167:3 | highlighted | 220:19 238:22 |
| 190:21,23 | heavily 161:7 | 107:6,9,10 | 239:18 240:7 |
| 193:1 194:21 | 173:8 181:17 | 144:24 145:10 | 241:12 |
| 196:6,6,10,20 | 275:24 | 217:16 289:2 | holes 238:1 |
| 197:2,7,10,17 | heck 47:22 | highlighting | holland 22:10 |
| 197:22 198:3,8 | heirs 115:20 | 251:12 | 25:14 26:11 |
| 198:15,21 | 116:1 | hilcorp 7:15 | 33:14 36:9 |
| 199:3,9,16,21 | hell 158:18 | 185:21,25 | 38:12 66:21 |
| 199:24 200:8 | hello 103:4 | 186:3,5,15,18 | 80:16 85:17 |
| 200:18,21 | 166:22 | 187:17,21 | 103:9 117:9 |
| 201:4,11,17 | help 214:14 | 188:15 189:23 | 127:2 |
| 202:4,8,13,18 | 260:15 | hilcorp's 187:7 | holliday 9:14 |
| 202:24 203:9 | helpful 83:22 | hill 13:18 17:6 | 116:25 117:2,3 |
| 203:18,23 | 124:16 | 87:14 89:7 | 117:17 122:19 |
| 204:3,9,21 | helps 203:25 | 155:4 | 123:1,7 124:6 |
| 205:3,5,14,16 | herber 15:16 | hill's 88:24 | 124:11,18,23 |
| 205:22,24 | 128:16 | hinkle 23:17,17 | 125:4,10,15 |
| 207:9,14,18,22 | hereto 311:14 | 31:20 50:14 | 126:9,12,13,21 |
| 208:2,9 209:10 | 312:11 | 57:17 67:3 | hollow 59:16 |
| 209:10 210:5 | hey 124:2 | 103:5 110:2 | hope 77:3 |
| 236:15 261:23 | 178:20 | historical 193:4 | 85:11 158:18 |
| 261:23 262:6 | hi 207:17,24 | history 148:7 | 203:16 |
| 262:10 276:1 | high 76:11 | 227:16,18 | hopefully 58:9 |
| 277:12 280:2,6 | 209:20 221:9 | hit 46:1 | 69:19 89:15 |
| 283:5 285:4,4 | 222:21,22,22 | hm 256:24 | 90:18 95:7 |
| 294:4,9,13,16 | 222:23 224:11 | 300:5 | 148:13 207:13 |
| 295:4,9 298:1 | 224:20 231:17 | hobbs 43:6,22 | hopes 58:11 |
| 298:2,12,17 | 240:19,22 | 46:21 47:2 | hoping 92:24 |
| 306:20,24 | 247:12 271:2 | 48:13 105:6 | 245:20 |
| 307:2 308:8,11 | 281:24 | 192:21 | horizontal 2:22 |
| 308:22 309:6 | higher 75:25 | hold 48:24 | 4:9,19 5:18 6:3 |
| 309:19,23,25 | 230:2 253:22 | 136:6 | 42:25 50:25 |

[horizontal - included]

| 51:9,17 54:17 | i | identify 65:5 | impasse 27:6 |
| :---: | :---: | :---: | :---: |
| 58:22 59:8,17 | idea 110:11 | 69:15 136:15 | impediments |
| 67:18,23 82:21 | $305: 17$ | 198:4 224:10 | 82:20 89:9 |
| 86:23 87:3 | identical 42:15 | 292:1 298:20 | 120:16 130:9 |
| 89:9 99:8 | 92:21 97:13 | identifying | imperm 287:5 |
| 103:23 104:10 | 145:16 | 107:4 115:15 | 287:6,12 |
| 111:7 118:9 | identification | 120:18 133:20 | 288:12 |
| 120:14,16,22 | 44:13 53:4 | 135:13 137:9 | impermeability |
| 121:11,15 | 62:14 72:12 | 297:7 307:14 | 287:16 288:16 |
| 128:1,8 130:10 | 79:20 83:10 | 309:12 | important 91:3 |
| 133:3 137:2 | 89:24 100:3 | identity 42:7 | 92:25 |
| 156:22 161:10 | 105:13 112:17 | ii 5:2,12 14:12 | imposes 226:8 |
| 166:8 169:6 | 122:11 130:23 | 15:2 105:11 | inadvertently |
| 173:24 176:20 | 141:3 152:9 | 109:20 117:4 | 70:3 |
| 182:1 217:15 | 156:7 162:13 | 118:8 122:9 | incident 7:11 |
| 243:21 | 166:25 177:11 | 126:18 | inclination |
| horse 142:4 | 182:17 194:20 | imaged 203:17 | 181:16 |
| host 9:3 | 261:22 297:25 | images 93:13 | include 39:14 |
| hot 262:8 | identified | 93:13 | 52:1,10 61:2 |
| hottest 118:2 | 111:15 114:25 | immediately | 61:25 68:9 |
| hour 256:3,4 | 124:13 133:13 | 99:16 159:5 | 92:25 98:9 |
| 270:23 271:7,8 | 135:21 136:21 | 214:12 | 101:20 104:13 |
| 271:20 | 213:7 214:16 | impact 29:13 | 111:24 140:17 |
| hours 228:24 | 216:10 233:21 | 134:15 296:13 | 155:19 162:23 |
| 247:24 256:5 | 240:23 241:25 | 296:14 302:22 | 172:4 192:25 |
| house 117:20 | 242:19,22 | 303:22 309:14 | 194:3 206:19 |
| hsu 243:21 | 243:9,15,16,24 | 309:17 | 206:23 213:22 |
| hundred | 244:4 290:13 | impacted 268:4 | 218:15 235:18 |
| 252:20 253:17 | 297:2,4 307:12 | impacts 138:22 | 242:25 271:19 |
| hydrocarbon | 307:17 308:1 | 260:18 261:4,9 | included 61:14 |
| 261:4 | identifies 42:7 | 261:12 292:22 | 68:18 69:12 |
| hydrostatic | 134:4 135:10 | impairment | 71:1,15 73:8 |
| 231:4,23 282:8 | 135:25 139:7,9 | 260:19 | 81:8,23 83:24 |
|  | 139:13 213:11 | impairments | 87:10 128:13 |
|  | 307:23 | 233:7 | 140:13 144:6 |

[included - injection]

| 209:25 214:10 | increase 8:6 | 234:19 | initial 81:25 |
| :---: | :---: | :---: | :---: |
| 220:7 224:4 | 194:11 195:8 | indication | 133:12,15 |
| 225:8,9 233:3 | 196:14 206:10 | 64:20 106:25 | 134:4 193:9 |
| 234:18 238:22 | 228:15 229:4,6 | indicative | 261:8 271:25 |
| 239:13,22 | 229:7,11 253:1 | 254:12 | 272:1,1 293:10 |
| 245:7 266:19 | 253:11 255:14 | individual | 303:18 |
| 267:2 296:6 | 295:17,19 | 111:20 117:23 | initially 81:5 |
| 301:5 | 296:16 299:9 | 250:3 251:3 | 86:24 87:5 |
| includes 61:9 | 304:20 305:22 | individuals | 128:4,11 |
| 70:19 81:16 | 309:4 | 307:9 | 268:22 |
| 82:16 87:18 | increased | infects 39:18 | initiated |
| 89:1 98:4,8,17 | 196:23 210:10 | infill $82: 2$ | 252:25 |
| 104:23 105:1 | 281:17 296:12 | information | inject 249:11 |
| 108:3 128:20 | 296:14 302:20 | 29:15 33:25 | 286:14,20 |
| 130:5 163:15 | 303:25 | 41:20,24 55:21 | 289:15,19 |
| 220:15 233:16 | increases | 81:23 82:3 | injected 242:20 |
| including 30:7 | 282:18 | 88:6 92:6 | 247:2 248:5,8 |
| 94:5 119:1 | increasing | 95:12 119:12 | 248:10,13,22 |
| 122:5 163:14 | 75:20,23 76:9 | 119:15 140:12 | 248:24,25 |
| 171:22 243:10 | 192:2,6 210:9 | 154:14 155:9 | 249:12,17 |
| 297:3 | 253:5 275:12 | 160:7 165:24 | 252:20 257:18 |
| inclusion | 296:1 | 168:6,11 | 257:19,21 |
| 142:16 | incrementally | 171:21 173:14 | 260:21 268:14 |
| incompatibility | 229:7 | 174:22 179:12 | 291:16,23 |
| 236:2 | indicate 55:14 | 179:20 181:2 | injecting |
| incorporate | 73:14 139:2 | 181:13 186:25 | 225:12 232:14 |
| 224:12 | 250:24 | 224:22,24 | 235:8 247:18 |
| incorporated | indicated 42:18 | 225:5 226:17 | 247:21 252:16 |
| 26:12 205:21 | 108:22 129:15 | 230:1 231:13 | 269:1,7 286:23 |
| 208:21 | 140:22 216:6 | 241:9,14,16,16 | 286:23 287:10 |
| incorrect | 221:2 | 250:16 251:24 | 287:19 288:9 |
| 251:12 | indicates | 280:9 301:18 | 290:1,4 291:17 |
| incorrectly | 234:1 | informed 28:9 | injection 2:3 |
| 139:13 273:20 | indicating | 185:3 | 8:4,6,8 206:6,8 |
|  | 216:2 217:10 |  | 206:9,11,21 |

[injection - interests]

| 210:3,7,10 | 295:19 296:2 | 267:20 271:23 | 33:17 35:16 |
| :---: | :---: | :---: | :---: |
| 213:14 214:5 | 298:22 300:3,8 | intents 29:4 | 36:23 38:15 |
| 217:19,21 | 300:19 302:14 | interbedded | 47:25 50:1 |
| 218:16 223:24 | 302:18,20,21 | 287:6,14 | 52:15 57:25 |
| 224:2,14,18,21 | 303:4,8,9,14,17 | 288:12 | 62:4 76:17 |
| 225:11,15 | 303:21 304:9 | interest 42:10 | 77:17 80:19 |
| 226:9,23 227:1 | 304:12,21 | 52:3,8 54:21 | 84:22 85:20 |
| 227:1 228:3 | 305:13 306:2 | 54:22,23 61:4 | 97:10 102:13 |
| 229:2,6,12 | 308:18 309:5 | 61:7,10 69:17 | 103:18 109:15 |
| 232:23 233:8 | 309:15 | 69:21 70:12,14 | 110:21 126:11 |
| 234:4,25 | injectors 292:3 | 73:4,13,15 | 127:5 132:3,16 |
| 235:20,25 | input 300:22 | 79:6,7 82:9 | 132:24 153:1 |
| 238:7 239:21 | inputs 275:8 | 88:20 97:14 | 156:25 157:15 |
| 241:24 242:19 | installed | 98:14 99:15 | 158:13 159:12 |
| 242:21 243:10 | 222:24 255:2 | 100:24 101:3 | 164:11 171:3 |
| 245:14,15,17 | installing 225:6 | 107:14 109:11 | 183:23 184:24 |
| 248:20,25 | instance 180:14 | 111:18 112:2,2 | 186:2 190:14 |
| 249:1 250:13 | 209:22 214:11 | 114:10,20 | 190:22 205:4 |
| 251:5,5,23,25 | 220:21 274:18 | 124:21,21 | 311:15 312:12 |
| 252:13,16,22 | 304:8,23 | 129:19 136:7 | interesting |
| 253:1,2,8,11,22 | instances 221:6 | 139:20 145:16 | 21:22 73:11 |
| 254:7,17,17,24 | 280:18 | 154:17,23 | interests 5:7 |
| 257:9 258:3,3 | instituting | 155:15 159:16 | 29:23 50:18,23 |
| 258:14,16 | 191:6 | 160:18,19 | 51:7 52:3 |
| 259:10 260:20 | instructed 25:1 | 161:13 165:13 | 58:15,20 59:15 |
| 261:8 263:15 | integrity | 165:16,17 | 61:5 69:12,18 |
| 265:12,13 | 226:10,11,14 | 166:10 169:10 | 73:24 80:23 |
| 268:12,13,13 | 227:5,9,16,20 | 172:7,8,10 | 82:11,12 86:17 |
| 271:7,10,16 | 227:22 255:1 | 174:6,11 | 98:15,16 |
| 272:14 277:7 | 261:4 | 175:19,21 | 101:14 103:22 |
| 277:22,24 | intended 28:11 | 181:5,22 | 104:14 107:5 |
| 281:24 282:2 | 28:22 | 244:18,19,23 | 111:1,5,15 |
| 282:19 286:12 | intending 34:7 | 245:21 293:23 | 114:11 118:8 |
| 292:7,16,18,19 | intent 198:22 | interested | 124:7 125:23 |
| 293:6 295:16 | 198:25 199:17 | 26:24 32:2 | 127:11 133:8 |

[interests - janacek]

| 135:15,17,20 | 238:8 241:24 | isotonic 176:13 | 205:17 209:25 |
| :---: | :---: | :---: | :---: |
| 135:24 136:4 | 242:19 270:24 | issuance 78:18 | 210:2,8 253:13 |
| 136:12 140:1 | 287:8,17,19 | 206:14 210:15 | 254:6,11 |
| 160:19 168:14 | 288:2,14,15 | issue 24:22 | 255:20 274:7 |
| 175:22 192:4 | 289:7,18 | 26:1,4 27:5 | items 22:3 |
| 246:16 308:4 | 290:14 291:11 | 28:13 34:14 | 32:22 36:1 |
| interim 27:24 | intervals 137:1 | 35:8 43:8 | 38:5 48:16 |
| 30:21 | 137:12 211:22 | 47:10 64:18 | 57:14 85:13 |
| intermediate | 212:9 214:20 | 90:6 107:19,24 | 109:25 126:23 |
| 224:25 254:23 | 215:22 217:3 | 119:7 124:4 | 149:24 153:17 |
| 255:4,5,6,17 | 235:25 241:18 | 140:1 141:15 | 170:20 246:20 |
| intermittent | 267:15 285:10 | 142:4 152:18 | 257:13,15 |
| 206:8 224:14 | 286:12,13,16 | 202:25 225:17 | j |
| 232:12 | 286:19 289:10 | 259:13 260:8 | j 207:20 |
| internal 288:4 | 289:14,22 | 272:12 284:24 | jackie 9:10 |
| internally | 290:9 292:17 | issued 2:17 | 31:20 50:14 |
| 157:1 | 292:20 293:6 | 271:12 | 57:17 67:3 |
| internet 95:5 | introduce | issues 23:25 | 103:4 110:2 |
| interpreted | 192:24 194:2 | 50:13 56:12 | 190:20 |
| 270:25 | involve 171:6 | 107:21 149:21 | james 9:6 |
| interrupt | involved 43:5 | 168:10 202:15 | Ja6:25 |
| 126:12 283:3 | 143:12 160:17 | 225:17,20 | janacek 10:3 |
| interrupting | 165:13,13 | 235:23 236:1 | 207:12,23,24 |
| 162:15 | 168:12,12,18 | 236:10 256:20 | 207:25 208:5 |
| interruption | 172:3 175:15 | 268:3,5 | 208:13,16,18 |
| 78:25 | 175:18,18 | it'll 34:18 44:4 | 209:9,14 |
| interruptions | 181:5,5,6 | 146:8 | 212:16 213:5 |
| 260:5 | 220:8 248:23 | item 25:9 26:7 | 224:9 229:17 |
| interval 59:9 | involving 185:6 | 31:18 43:13 | 237:4 240:11 |
| 71:16 99:12 | iron 41:14 | 66:12 77:6,10 | 240:19 242:17 |
| 104:5 121:2 | islands 41:14 | 80:13 96:21 | 245:20 259:7 |
| 194:8 212:12 | isochores 71:16 | 103:2 149:12 | 260:14 261:13 |
| 214:13 215:23 | isopach 290:16 | 159:7 163:25 | 262:4,7,11,15 |
| 225:11 234:13 | 290:16,21 | 180:3 184:12 | 279:12 280:9 |
| 234:19,22 |  | 185:21 190:17 | 294:24 298:8 |

[janacek - labeled]

| 298:19 306:18 | jolly's 87:17 | 198:11 | 123:15 127:6 |
| :---: | :---: | :---: | :---: |
| 307:11 | jordan 17:16 | kept 135:23 | 134:24 141:13 |
| january 62:10 | 161:5 | 301:13 | 143:4,11 |
| 70:2,7,9,13 | joy 154:20 | key 40:11 49:16 | 149:21 159:4 |
| 251:21 252:6 | 155:12 | 197:6 224:11 | 188:12 189:14 |
| 257:17 | juan 7:17 | 229:18 237:12 | 203:5 213:2 |
| jared 10:5 | juh 295:15 | 238:23 257:13 | 218:21 221:23 |
| 207:12,17 | july 34:15,16 | kick 37:6,9 | 230:14 264:8 |
| 208:5 283:8,14 | 35:5,18 79:2 | kidding 85:10 | 264:12 266:6 |
| jargon 288:5 | 111:4 | kind 44:18 64:6 | 267:11,12,13 |
| jc 68:22 | jump 246:7 | 64:15 114:19 | 267:13,16 |
| jesse 9:15 | 252:22 253:10 | 122:13 124:16 | 273:5,18,25 |
| 184:21 | 288:19 | 144:18 148:5 | 274:5 275:8 |
| jet 98:1,2 | jumped 132:1 | 151:17 178:7 | 276:23 277:23 |
| jim 9:11 31:24 | jumps 125:14 | 178:17 182:5 | 278:23,24,25 |
| 36:4 38:7 | 288:18 | 187:24 195:7 | 279:4,5,9 |
| 110:8 149:14 | june 34:11,14 | 214:17 241:3 | 288:11 293:4 |
| 158:4 159:9 | 34:23,24 | 245:12 255:15 | 298:19 300:7 |
| 164:2 170:25 | jurisdiction | 263:21 264:12 | 300:13 301:1 |
| 180:5 | 190:1 | 267:9,14 270:6 | 302:10 303:7 |
| joa 75:5 107:18 | justification | 274:11 277:2 | 304:25 305:5,7 |
| 145:5 | 71:20 148:8 | 277:18 285:24 | 306:3 307:7 |
| joas 101:8 | justifications | 286:18 288:4,4 | knowledge |
| job 8:23 29:16 | 64:4,5 | 288:6,22 291:6 | 311:9 312:6 |
| john 8:17,18 | k | 299:17 300:14 | known 264:12 |
| 12:21 14:6 | k 198:6 199:7 | 302:24 | 291:21 293:7 |
| 21:7,7 78:9 | 208:1 | klingler 63:15 | kyle 19:13 |
| 94:19 98:23 | kauffma | 65:2,6,7,11,25 | 192:22 199:6 |
| 204:12 | $172: 14$ | know 21:16 | 199:12 |
| johns 15:15 | keara | 43:25 44:22 | 1 |
| 128:16,19 | keep 188:20 | 49:12 60:17 | 1 22:14 158:8 |
| joined 29:6 | keeping 291:16 | 64:6,18 73:5,6 | 198:6 199:7,7 |
| $\begin{aligned} & \text { jolly } 13: 16 \\ & 87: 13 \end{aligned}$ | kelly 204:12 | 75:7 85:7 | labeled 146:8 |
| 87:13 | kelsey 19:14 | 93:17 94:10 | 233:22 239:23 |
|  | 193:25 198:6 | 106:3 115:23 | 240:7 292:3 |

[labeling - lengths]

| labeling 238:4 | 118:19,24 | law 117:3 | 154:16 165:12 |
| :---: | :---: | :---: | :---: |
| 238:21 286:2 | 128:15 133:24 | lawyer 104:2,6 | 168:12 175:18 |
| labels 239:13 | 150:15 154:13 | 106:2 | 181:6 |
| 269:17 | 160:5 165:9 | laydown 41:15 | leave 84:25 |
| laboratory | 168:4,4 175:13 | 42:18,22 71:25 | 95:2 190:3 |
| 233:18 | 176:7 187:7 | 155:7,8 166:3 | 195:20 242:21 |
| lacking 156:17 | landman's 42:5 | 169:3,4 181:19 | 292:13 |
| laid 299:7 | 76:1 171:20 | layers 287:3,13 | leaving 62:25 |
| lake 127:14 | 172:19 173:15 | 287:24 291:19 | 89:20 |
| land 11:14,15 | 175:7,17 181:1 | 292:16 | lecture 96:4 |
| 12:3,4 14:13 | lands 144:5 | layout 216:19 | left 66:5 70:3 |
| 14:21 41:19 | 171:7 284:23 | 289:22,23 | 102:16 140:13 |
| 45:15 51:24,25 | language | lea $1: 13,18,23$ | 215:21 217:1 |
| 54:24 55:1,9,9 | 218:21 | 2:11,19,24 3:3 | 219:23 220:3 |
| 55:24,25 56:1 | laptop 49:16 | 3:7 5:3,20 6:5 | 221:14 225:2 |
| 57:6 60:20 | large 63:18 | 6:9,19 7:23 | 230:15 233:24 |
| 61:1,2,8 64:22 | larger 54:15 | 8:11 41:12 | 242:25 246:22 |
| 64:23 65:3 | 248:12 | 44:5 103:25 | 247:23 286:8 |
| 68:12,16,22 | largest 231:25 | 127:22 150:6 | 286:17 289:25 |
| 78:12 82:7 | 250:5 258:18 | 159:19 191:12 | legacy 4:18 |
| 88:19 98:9 | larry 15:3 | leads 220:20 | 14:2 96:21 |
| 104:12,13 | 118:19,25 | 221:10 250:20 | 97:1,11 100:1 |
| 111:23,24 | lastly 82:22 | leaning 274:11 | 102:19 |
| 129:18 135:13 | 89:10 130:11 | learning | legacy's 98:9 |
| 141:17 144:5 | late 25:21 | 141:10,14 | 98:23 |
| 154:15 160:16 | 43:18 | 142:24 | legal 27:8,11 |
| 165:11 172:2 | lateral 28:17 | lease 28:24 | 28:2,22 29:1 |
| 175:15 179:7,7 | 47:22 75:15 | 29:2,3 55:14 | 31:11 52:20 |
| 181:3 244:5 | laterals 45:11 | 55:18 69:11 | 178:25 |
| landman 17:15 | 45:12 60:2 | 107:21 142:16 | length 76:3 |
| 18:15 19:5 | 72:2 75:15,21 | 154:16 183:14 | 248:1 249:15 |
| 41:18 65:7 | 75:22 76:3,15 | 241:11 | 249:17 250:24 |
| 68:20,23 69:1 | 159:24 | leases 55:25 | lengths 75:15 |
| $\begin{aligned} & 78: 981: 10 \\ & \text { 87:13 117:2 } \end{aligned}$ | latham 110:7 | 64:23 142:13 $142: 17.20$ | 247:6 |

[letter - llc]

| letter 23:23 | lieu 185:4 | limitation | 241:7 248:20 |
| :---: | :---: | :---: | :---: |
| 42:12 52:7,15 | life 117:19 | 228:12 | 250:15 266:11 |
| 52:16 62:4,5 | 151:23 300:25 | limited 159:20 | 309:2 |
| 70:1,5,7,7,9,9 | lifetime 264:21 | 305:4 | listing 160:18 |
| 74:10,12 82:13 | lift 225:22 | line 28:24 29:2 | 214:7 |
| 99:17 104:15 | 226:18,22,23 | 29:3 59:10 | lists 41:21 |
| 105:1 112:3,7 | 226:25 227:4 | 104:7 137:7 | 69:14,15,16 |
| 113:2,4,6,8,11 | 228:3 236:4,12 | 144:19 196:22 | 106:22 129:19 |
| 119:24 121:20 | 254:18 257:9 | 220:18,19,24 | 161:17 |
| 129:22 136:10 | 258:3 263:14 | 221:10 222:21 | little 21:12 |
| 140:11,17 | 264:24 265:5,9 | 222:22 223:11 | 35:13 38:21 |
| 146:2,15,15,16 | 265:10 266:20 | 223:12 253:6,6 | 53:13 64:6,11 |
| 150:25 168:17 | 268:4 281:22 | 254:14 258:12 | 67:22 73:24 |
| 174:3 175:25 | lifted 221:12 | lines 264:14 | 80:10 131:10 |
| 176:1 181:9 | light 186:24 | 270:7 275:23 | 142:3 148:6 |
| 192:20 297:11 | 255:10 | 278:11 | 183:13 226:16 |
| letterhead | likelihood | lion's 205:23 | 237:17 238:25 |
| 88:11 | 55:23 | list 52:3 61:5 | 247:10,19,25 |
| lettering | likes 41:21 | 69:20 73:4 | 247:25 250:8 |
| 122:17,22 | lime 212:14 | 82:8,10 88:20 | 256:2 259:18 |
| 227:12 | 214:24 217:5 | 99:17 101:14 | 265:25 272:10 |
| letters 45:1 | 234:21 263:2,4 | 101:18,20 | 277:11 301:4 |
| 61:6 65:18,21 | 263:7,12 288:3 | 118:4 119:14 | live $32: 4,9$ |
| 70:10,18 79:5 | 288:7,10 | 135:16 143:25 | 154:10 207:1 |
| 79:6 82:23 | 289:21 290:5 | 145:7 153:18 | lives 226:19 |
| 88:22 89:12 | 291:2,3 292:12 | 160:17 162:4 | llc 2:15,18 3:16 |
| 99:14 113:9 | limes 287:25 | 180:21 244:2,7 | 3:21 5:2,6,12 |
| 130:13 160:22 | limestone | 266:23 276:15 | 7:8 12:2,11 |
| 165:20 181:11 | 287:7,16 288:1 | 307:25 308:1 | 14:12,20 15:2 |
| letting 64:5 | limestones | listed 21:18 | 62:12 66:7,13 |
| level 209:20 | 287:5,14 | 74:12 124:8 | 66:16 72:10 |
| 224:11,20 | 288:13,15,17 | 136:9 144:23 | 76:22 86:3 |
| 240:19,22 | limit 175:9 | 165:16 214:6 | 105:11 109:20 |
| 247:12 | 282:19 | 221:16 230:3,7 | 112:15 116:15 |
|  |  | 231:1 233:5 | 117:4 122:9 |

[llc - lot]

| 126:18 145:5 | 89:1 99:1 | 154:19 161:6 | 247:9 248:4,4 |
| :---: | :---: | :---: | :---: |
| locatable | 130:6 194:4 | 168:25 173:11 | 248:7 249:20 |
| 119:19 | 288:25 | 173:17 176:1 | 251:19,22 |
| locate 136:15 | $\boldsymbol{\operatorname { l o g }}$ 133:13,15 | 176:10 183:4 | 252:1,5,18 |
| 201:25 | 196:4 285:14 | 204:9 216:18 | 255:9,13 257:1 |
| located 59:10 | 285:20,23 | 223:9 230:21 | 257:3,14,14,16 |
| 96:5 104:6 | 286:4,5,7,11 | 237:17 247:8 | 258:2 269:3 |
| 191:9 193:7 | 289:10,11,12 | 247:20 248:3 | 270:5 273:22 |
| 219:1 220:22 | 289:22 | 253:5 255:10 | 274:8,17 278:7 |
| 221:5 222:7 | logic 75:12 | 261:1 264:9,11 | 282:4 303:13 |
| 238:2 243:11 | logs 99:12 | 268:17,19 | 304:2,3,8 |
| 258:7 307:18 | 195:21,23 | 270:12 271:18 | looks 33:23 |
| location 2:11 | 196:1,7 226:3 | 272:15 275:14 | 47:16,20 73:19 |
| 8:20 27:5,7,11 | 286:6 | 275:23 281:5,6 | 73:23 74:11 |
| 27:12,15 28:1 | long 43:14 | 282:18 | 94:21 147:15 |
| 29:19 46:9,10 | 173:23 174:1,1 | looked 115:17 | 196:24 197:3 |
| 52:10 60:14 | 198:18 248:2 | 231:19 281:21 | 204:12,17 |
| 61:25 98:17 | 277:7 280:19 | looking 24:11 | 258:20 266:10 |
| 104:3,4,23 | 280:21 304:13 | 28:15 34:11 | 272:12 274:22 |
| 119:4,5 121:1 | longer 30:15 | 35:5 36:1 | 300:3 304:1 |
| 121:5,10 137:7 | 45:11 75:15 | 37:15 46:20 | 305:3 |
| 177:22 181:3 | 113:19 116:2 | 92:3,7 96:12 | loop 8:3 206:6 |
| 220:19 221:8 | 138:15 183:19 | 106:21 113:1 | 209:23 211:11 |
| 238:22 264:14 | 185:15 228:24 | 114:3 131:15 | 218:7,12 226:9 |
| 289:1,3,17 | 228:25 248:11 | 131:16 147:15 | 229:25 |
| locations 6:24 | 250:6,25 | 158:18 189:3 | lost 48:25 |
| 27:8,20 28:3 | 281:10 303:3,3 | 196:25 200:9 | lot 29:8 42:8 |
| 28:22 30:15 | 304:25 309:14 | 200:18 211:20 | 56:13 106:8 |
| 99:2 171:14 | longest 248:1 | 212:8,20 | 118:3 144:20 |
| 173:3,6,13 | 248:12 | 215:11,15 | 160:11 204:13 |
| 174:18 178:4 | look 42:19 | 216:1,20 | 220:9 224:9 |
| 213:22 239:18 | 43:15 44:22 | 228:23 231:8 | 242:16 250:15 |
| 240:7 241:13 | 53:24 63:1,12 | 234:3 237:8 | 251:24 259:23 |
| locator 71:12 | 114:22 129:22 | 239:12 240:4 | 278:2 303:19 |
| 71:13 82:17 | 143:14 150:20 | 243:14 246:18 | 303:20 |

Page 53
[lots - marathon]

| lots 46:1 109:8 | mailed 70:19 | 83:19 92:12 | 120:18,20 |
| :---: | :---: | :---: | :---: |
| 200:15 | 79:5 82:24 | 96:16 105:17 | 129:18 130:6,7 |
| low 203:16 | 89:12 99:14,17 | 108:4 109:10 | 137:7 155:5 |
| 222:25 252:16 | 124:25 129:25 | 115:11 123:19 | 161:6 165:12 |
| 287:1,5,6,11,14 | 130:13 | 135:6 138:14 | 165:24 168:22 |
| 287:15,22,25 | mailer 181:10 | 145:1 146:15 | 173:7,16 176:9 |
| 288:1,12,15,16 | mailing 47:6 | 146:24 147:22 | 176:10,18 |
| 291:14 | 48:9 70:13 | 157:12 160:14 | 181:15 194:4,5 |
| lower 134:16 | 79:4 91:6,8 | 175:10 187:12 | 194:5 219:24 |
| 303:8,19 | 99:18 121:19 | 188:13,16 | 220:1,3,7,10,12 |
| lp 2:6 4:19 14:2 | 146:3 152:3 | 190:6 200:9 | 223:9 237:9,10 |
| 85:24 100:1 | 161:12,13 | 202:2 205:17 | 238:12 239:2 |
| 102:19 | 162:5 174:14 | 221:24 259:10 | 240:2 288:25 |
| ltp 220:17 | 177:2 182:8 | 259:12,24 | 290:6,7,11,16 |
| m | mailings 70:3 | 268:2 273:18 | 290:21 |
| m 154:20 | 70:11 140:19 | 277:9,13 | maps 52:10,11 |
| 204:12 | 297:17 | 303:16 | 52:11 61:25,25 |
| 2 $2: 5$ | mails 297:15 | makes 64:16 | 62:1 98:17 |
| made 30:22 | main 156:17 | 148:5 278:12 | 99:1,3 137:6,9 |
| 78:17 84:24 | 211:1 220:7 | 306:14 | 166:6 169:2 |
| 118:1 148:22 | 221:21 222:6 | making 74:22 | 219:6 237:5,11 |
| 151:6 191:24 | 239:6 286:1 | 273:3 | 238:23 239:19 |
| 209:2 224:19 | 290:11 | malaga 80:24 | 240:10,14 |
| 262:19,22 | maintained | management | 243:16,19,20 |
| 301:18 | 305:7,8,11,12 | 68:22 | 243:21 288:21 |
| magby 154:20 | 305:22,23 | manager | 290:15,16 |
| 155:12 | maintains | 193:25 | 307:22 308:1 |
| magnitude | 305:2 | manner 192:4 | mar 158:6,7,9 |
| 264:5 304:6 | major 223:6 | map 42:16,20 | marathon 3:20 |
| mail 52:18 62:6 | 256:20 | 47:16 61:9,9 | 12:11 66:13,16 |
| 112:8 140:12 | majority 260:4 | 69:11 71:12,13 | 67:13,17,20 |
| $140: 12,20$ | 269:10,11 | 71:13 82:7,17 | 68:1,20,21 |
| $\begin{aligned} & 140: 12,20 \\ & 176: 3181: \end{aligned}$ | make 24:13 | 82:18 88:19 | 69:8,13,16 |
| 297:5 | 28:17 50:3 | 89:1,2 104:23 | 70:4,5,6,11,25 |
|  | 55:5 73:12,21 | 104:24 119:4 | 71:4,17 72:1 |

[marathon - mclean]

| 72:10 75:14,20 | marlene 9:3 | 174:21 177:7 | 276:8,18,22 |
| :---: | :---: | :---: | :---: |
| 75:24 76:22 | 24:16 123:20 | 179:9 182:14 | 277:1 278:5,21 |
| marathon's | 124:1 | 209:3 306:1 | 279:7,11,24,25 |
| 68:4,13,16 | masp 229:23 | matters 54:2 | 294:5,5,7 |
| 72:2 75:19,19 | 230:2 231:11 | 78:12 99:24 | 298:13,15,18 |
| 75:25 | 232:2 | 100:13 168:14 | 299:1,21,24 |
| march 30:3 | massively | 168:19 184:3 | 300:1,6 301:3 |
| 88:1,11 89:12 | 93:20 | 185:6 189:7 | 301:24 302:4 |
| 89:14 105:6 | master 61:17 | $\boldsymbol{\operatorname { m a x }}$ 249:1 | 302:12 303:24 |
| 125:3 130:13 | master's 71:3 | 251:5 282:7,12 | 305:9,21 306:8 |
| 130:15 140:18 | 284:7 | 282:17,21 | 306:17 309:20 |
| 150:8 151:2,3 | matador 1:11 | maximize 68:4 | 309:21 |
| 163:18 267:3 | 1:16 22:6,10 | 72:2 253:2 | mcelure's |
| 297:13 | 23:14,19 24:5 | maximum 8:7 | 309:13 |
| mark 158:15 | 38:25 128:23 | 169:6 206:10 | mclean 9:10 |
| marked 44:12 | matador's 24:3 | 210:9 228:11 | 31:19,20 32:5 |
| 53:3 62:13 | 81:18 | 228:18 229:1,4 | 32:10,20 48:18 |
| 72:11 79:19 | match 45:22 | 229:11,22 | 48:21,24 49:4 |
| 83:9 89:23 | matching 269:7 | 230:22 231:1,2 | 49:7,10,19 |
| 100:2 105:12 | materials 28:15 | 231:22 232:3 | 50:12,14 53:15 |
| 112:16 122:10 | 71:2 95:1 | 259:11 278:12 | 53:19,23 54:3 |
| 130:22 141:3 | math 148:4 | 281:25 282:5 | 55:3,4,11,16,20 |
| 152:8 156:6 | matter 1:6 | 282:21 | 56:9,15,24 |
| 162:12 166:24 | 23:10 41:25 | meclure 8:19 | 57:12,16,17 |
| 177:10 180:19 | 81:13 87:16 | 262:12,13,14 | 58:13 61:23 |
| 182:16 194:19 | 100:10 118:19 | 263:5,13,18 | 63:3,10,14 |
| 209:16 240:13 | 119:3,17 120:8 | 264:2,10 265:2 | 64:14 65:24 |
| 261:22 283:24 | 121:18,23 | 265:14 266:4,9 | 66:10 67:3,3,9 |
| 295:5 297:24 | 122:6 128:18 | 267:5,17 268:6 | 72:19 103:4,4 |
| marketing | 134:11 149:20 | 269:5,12,20 | 103:14,20 |
| 192:13 | 150:15 152:6 | 270:3,11,17 | 105:20 106:3,8 |
| marks 202:22 | 158:22 161:20 | 271:5,22 272:4 | 106:19 107:1 |
| marlan 127:8 | 161:22 162:2,8 | 272:9,20 | 107:16 108:7 |
| 128:5,12,24 | 164:24 166:19 | 273:15,21 | 108:16 109:4 |
| 129:3,8 | 169:25 172:17 | 274:10 275:18 | 109:12,23 |

Page 55
[mclean - midstream]

| $110: 2,2,23$ | meaning $116: 7$ | mentioning | $159: 8,10,13,15$ |
| :--- | :---: | :--- | :---: |
| $113: 5,13,17,22$ | $227: 11$ | $270: 19$ | $159: 24160: 11$ |
| $114: 2,6,12,18$ | means 95:6 | merged $86: 3$ | $162: 11163: 19$ |
| $114: 22115: 5,7$ | $106: 25216: 13$ | mess $41: 24$ | $164: 1,3,17,19$ |
| $115: 21,24$ | meant $218: 2$ | $44: 18,25$ | $166: 11,23$ |
| $116: 17190: 19$ | measure $255: 7$ | $159: 25$ | $167: 6,15169: 4$ |
| $190: 20,24$ | measured | met $232: 6$ | $170: 15,24$ |
| $195: 11,15$ | $225: 8241: 20$ | method $245: 6,7$ | $171: 1,4,10,14$ |
| $196: 13,15$ | $271: 24$ | methodology | $171: 17172: 16$ |
| $197: 1,5,9,13,19$ | measures | $265: 9274: 3$ | $173: 4176: 2$ |
| $197: 24198: 2$ | $121: 12$ | $276: 12,14$ | $177: 9179: 23$ |
| $199: 25200: 2$ | measuring | $300: 24$ | $180: 3,6,9,11$ |
| $200: 13,20,22$ | $255: 5$ | methods | $182: 15184: 5$ |
| $201: 6,12,23$ | mechanical | $226: 18275: 13$ | mewbourne's |
| $202: 7,12,16,21$ | $226: 10,11,14$ | mewbourne | $41: 14150: 6$ |
| $203: 12,14$ | $227: 5,9,16,20$ | $2: 13: 1,54: 14$ | mexico $1: 1,4,14$ |
| $204: 1,4,8,11,16$ | $227: 22255: 1$ | $6: 7,11,15,21$ | $1: 19,232: 7,12$ |
| $205: 13$ | $261: 4$ | $7: 111: 313: 14$ | $2: 19,253: 3,8$ |
| mean $29: 330: 3$ | meet $75: 3$ | $16: 1617: 2,12$ | $3: 14,18,234: 5$ |
| $34: 2341: 6$ | $211: 10229: 20$ | $18: 2,1219: 2$ | $4: 12,16,225: 3$ |
| $47: 1564: 8$ | $236: 19$ | $25: 1036: 3,5$ | $5: 9,14,206: 5,9$ |
| $73: 1275: 5$ | memory $200: 4$ | $37: 5,12,18$ | $6: 13,19,257: 5$ |
| $76: 1092: 6$ | $302: 1$ | $38: 6,8,2539: 1$ | $7: 13,18,24$ |
| $122: 17141: 12$ | mention $149: 24$ | $41: 8,19,25$ | $8: 1121: 4$ |
| $151: 22161: 11$ | $160: 10168: 10$ | $44: 1185: 14,18$ | $58: 1878: 1$ |
| $166: 4168: 23$ | $260: 24261: 5$ | $86: 9,15,21$ | $81: 486: 20$ |
| $188: 20189: 15$ | mentioned | $87: 289: 22$ | $103: 25111: 10$ |
| $190: 5265: 19$ | $121: 22129: 12$ | $95: 2396: 16$ | $127: 23167: 4$ |
| $271: 9272: 11$ | $148: 7184: 4$ | $149: 13,15,18$ | $191: 12284: 15$ |
| $273: 4274: 19$ | $196: 13198: 17$ | $149: 20150: 1$ | $284: 17311: 23$ |
| $275: 3277: 2,5$ | $198: 19212: 4$ | $150: 16,19$ | middle $30: 4$ |
| $277: 6,12278: 7$ | $225: 25234: 24$ | $152: 7153: 6,18$ | $54: 22127: 17$ |
| $298: 22299: 9$ | $235: 17240: 11$ | $154: 3,5,9,21$ | midnight $252: 7$ |
| $307: 8$ | $247: 15257: 6$ | $155: 8156: 5$ | midstream $7: 8$ |
|  | $303: 25$ | $157: 19158: 3,4$ | $184: 12,16$ |
|  |  |  |  |

[midstream - mrc]

| 185:16 232:12 | 149:8 161:3 | model's 302:15 | morrison |
| :---: | :---: | :---: | :---: |
| mile 45:13 | 185:8 | modeling 229:3 | 118:14 119:5 |
| 47:22,22,24 | miscalculating | 303:1 | 121:15 |
| 60:1 63:17 | 273:9 | modify $2: 2$ | motion 23:9 |
| 68:2,3 75:15 | mislabeled | modrall 26:17 | 25:21,24 31:5 |
| 75:21,22 76:15 | 286:3 | 57:22 66:15 | 38:20 43:20 |
| 96:14 159:24 | misremember... | moment 68:16 | 162:8 184:25 |
| 201:20 236:21 | 304:10 | 278:20 295:7 | 185:7 |
| 236:21 237:9 | missed 85:5 | 307:10 | motions 31:7 |
| 237:16 238:15 | 125:9 278:23 | money 25:1 | move 30:11 |
| 238:23 239:3,4 | missing 46:1,5 | month 24:9 | 44:9 78:25 |
| 240:8,13 241:2 | 46:21 73:6 | 34:19 42:2,3 | 118:23 121:16 |
| 243:11 | 84:4 91:10 | 75:9 154:15 | 151:25 166:21 |
| miles 157:2 | 93:25 146:2 | 160:8,8 165:10 | 169:23 174:19 |
| 292:2 | 270:5 | 168:7,7 171:23 | 174:23 177:6 |
| million 138:12 | mistake 151:6 | 175:14 280:20 | 182:12 230:19 |
| 247:3 248:13 | mit 228:1,5 | months 183:12 | 234:11 236:18 |
| 249:12 256:9 | mitch 18:5 | 246:25 304:17 | 238:11,24 |
| 298:22,23 | 165:8 168:5 | morning 22:7 | 250:14 251:17 |
| mind 92:14 | mits 265:12 | 22:13,25 23:4 | 261:19 294:22 |
| 97:6 188:21 | mixer 180:15 | 23:15 25:12,17 | 296:23 297:20 |
| mine's 80:9 | mixing 236:3 | 26:10,15,20,22 | moved 24:9 |
| mineral 69:21 | mm 256:24 | 31:19 32:25 | 284:13 |
| 124:21 159:16 | 300:5 | 33:12 36:12,19 | moving 58:4 |
| 161:13 244:1 | model 296:4,13 | 38:11 39:12 | 120:9 129:5 |
| minerals 1:2 | 299:9,10,14 | 49:22 57:21 | 216:22 231:7 |
| 21:5 | 300:2,4,11,13 | 66:14,19 77:11 | 234:8,15 276:4 |
| mines 284:8 | 300:18 301:7 | 77:12 80:10,14 | mre 4:7 5:16 |
| mingling 63:20 | 301:10,21 | 85:15,22 96:23 | 13:2 15:12 |
| minimal 248:8 | 302:1,16,23,25 | 103:8 116:25 | 38:10,13 39:4 |
| minimize 60:2 | 303:7,10,16,19 | 117:8 119:25 | 48:1 66:18,21 |
| 63:24 68:3 | 303:23 304:9 | 126:25 132:12 | 66:23 72:14 |
| 160:12 175:7,8 | 304:11 305:14 | 140:14 184:13 | 80:13,17,20,22 |
| minute 48:25 | 309:16 | 184:14 185:23 | 81:5 83:8 85:2 |
| 143:14 145:4 |  | 206:1,3 283:12 | 92:16 93:14 |

[mrc - new]

| 94:5,10 126:23 | naming 117:20 | 48:13 55:25 | neglect 38:22 |
| :---: | :---: | :---: | :---: |
| 127:3,6,10,24 | 288:5 | 60:2 64:23,25 | neglected 172:4 |
| 128:6 130:21 | nanodarcy | 86:12 95:1,12 | neither 98:3 |
| 132:7 | 287:2 | 109:8,19 | 126:7 164:14 |
| mudstones | napp2125652... | 115:22 134:18 | 311:10 312:7 |
| 287:1 | 7:12 | 134:20 142:4 | net $247: 14,15$ |
| multi 178:19 | nate 118:20 | 144:11 146:14 | 247:20 248:22 |
| multiple | 120:10 | 149:24 152:5 | 249:25 250:1 |
| 227:20 301:2 | nathaniel 15:6 | 153:12 157:18 | 250:21,22,24 |
| mute 54:10 | native 245:14 | 157:18,23 | 268:13,25 |
| muted 54:7 | 256:14 257:8 | 163:13,16 | networks |
| 63:6 294:6 | 258:8 272:23 | 166:15 168:10 | 295:25 |
| n | 273:1,5,9,19 | 170:9 173:9 | neutron 286:9 |
| n 9:1 10:1 21:1 | natural 1:2 | 175:9 178:12 | never 38:19 |
| $172: 9198: 7$ | 21:5 287:1 | 178:21 179:6,7 | 70:25 106:1 |
| $207: 21,25$ | nature 178:17 | 179:9 194:25 | 172:17 |
| 208:1 269:18 | 282:3 | 195:1 203:4 | new 1:1,4,14,19 |
| nail 210:22 | near 282:14 | 225:21,22 | 1:23 2:7,12,19 |
| name 106:1 | nearest 291:2 | 232:17 242:16 | 2:25 3:3,8,14 |
| 143:23 154:9 | nearly 97:13 | 257:8 276:1 | 3:18,23 4:5,12 |
| 155:25 162:23 | 138:12 | 279:13,14,16 | 4:16,22 5:3,9 |
| 198:4 199:4 | necessarily | 306:9 | 5:14,20 6:5,9 |
| 207:15,19 | 266:19 275:5 | needed 48:9 | 6:13,19,25 7:5 |
| $208: 16 \text { 213:12 }$ | 299:4,13 | 158:22 183:20 | 7:13,18,24 |
| $216: 4225: 11$ | 305:10 306:10 | 202:1 267:21 | 8:11 21:3 |
| 283:13 297:8 | necessary | 267:25 269:23 | 34:18 58:18 |
| named 117:24 | 27:23 44:7 | 269:24 279:17 | 78:1 81:4 |
| 117:25 | 50:9 56:21,21 | 309:20 | 86:20 101:19 |
| names 106 | 100:16 133:21 | needing 37:6 | 101:20 103:25 |
| 118:3 127:7 | 150:22 | needs 28:14 | 111:10 125:1 |
| 214:10 225:13 | necessity 60:22 | 29:8 63:6,16 | 127:22 167:4 |
| $230: 5,6,7$ | 138:4 | 188:10,17 | 169:19 191:12 |
| 241:11 251:4 | need 26:25 | 200:3 225:18 | 204:4,13 |
| 292:4 307:5 | 34:20 43:22 | negative 261:3 | 222:17 223:3,4 |
|  | 44:4 47:5,5 | 261:11 | 223:5,13 |

Page 58
[new - notice]

| 226:14 232:3 | 60:9,12 61:10 | 50:18 51:1 | 65:1,16 66:5 |
| :---: | :---: | :---: | :---: |
| 234:13,19 | 63:2,8,18 64:8 | 97:17,19 221:3 | 69:7 70:18,18 |
| 235:25 260:3,9 | 64:9,19 66:6 | 221:4 | 70:20 79:4,5 |
| 267:16 268:1 | 82:11 133:3,9 | northwest | 79:12 81:21 |
| 284:10,14,17 | 134:3,12,19 | 47:21 171:11 | 82:3,23,25 |
| 286:23 311:23 | 135:3,8 136:19 | 191:10 | 83:23,23 84:8 |
| news 105:6 | 138:5,13,23 | notary 8:22 | 86:13 87:25 |
| 192:21 | 144:2 147:6 | 311:22 | 88:7,9,10,15 |
| newspaper | 148:8 159:16 | note 21:12 | 89:11,13,21 |
| 43:23 48:13 | 160:25 162:10 | 107:2 125:18 | 90:16 91:20 |
| 79:9 83:16,17 | 163:15 175:3 | 135:22 151:1,2 | 93:14 95:20 |
| 84:8 85:1 | 176:4 177:22 | 151:2,13 | 96:12 99:13,14 |
| 91:14 112:10 | 177:25 178:4 | 224:15 242:23 | 99:16 104:16 |
| 125:2 151:19 | 179:5,22 | noted 134:24 | 104:18,25 |
| 297:7,19 | 180:17,22 | 172:19 197:15 | 105:1,3 108:2 |
| nice 75:3 | 183:12,16 | notes 98:13,18 | 108:6,11 |
| nickname | nope 162:17 | notice 11:8 | 111:19,25 |
| 117:24 | normal 54:15 | 12:7,20 13:8,9 | 112:6,6 113:15 |
| night 28:10,10 | 64:5 252:15 | 13:20,21 14:7 | 113:22 118:18 |
| 43:18 154:10 | 254:5,18 | 14:16,22 15:8 | 119:3,16,20 |
| nightmare 41:4 | normally 31:7 | 15:18,19 16:10 | 121:17,18,20 |
| nine 31:18 | 73:5 146:21 | 16:12,18,20 | 121:24 122:2 |
| 131:17 230:25 | 253:15,16 | 17:4,7,14,17 | 124:25,25 |
| nm 2:18 8:21 | 273:3 | 18:4,7,14,17 | 125:20 129:6 |
| nmac 51:18 | north 42:23 | 19:4,7,15 20:8 | 129:10,24 |
| 191:16 | 45:12,12,22 | 34:11 41:24 | 130:12,14 |
| nodding 94:21 | 47:11 50:19 | 43:1,8,12,12,16 | 136:17,19 |
| non 2:10 3:12 | 51:1 59:16 | 43:22 44:1,18 | 139:4,6,9,14,19 |
| 6:3,17 7:3 27:5 | 86:23 89:2,4 | 44:19 45:1 | 139:24 140:2,6 |
| 27:7 28:1 | 111:8 118:13 | 52:1,14,16,21 | 140:11,17,22 |
| 29:19 30:15 | 164:21,22 | 54:16,18 56:6 | 143:25 144:4 |
| 50:25 51:9,17 | 167:17,17 | 56:18,21 57:7 | 146:1,2 150:14 |
| 51:19 52:4,5 | 198:17 238:1 | 60:18 61:3 | 150:24,25 |
| 54:13 56:4 | northeast | 62:3,4,5,9 | 152:3,4,18 |
| 57:7 59:17 | 47:11 48:12 | 64:18,20,21 | 153:4 154:12 |

Page 59
[notice - obviously]

| 155:10,13,18 | notification | 118:25 119:18 | 58:4 66:23 |
| :---: | :---: | :---: | :---: |
| 155:19 160:4 | 88:1,16 91:12 | 127:24 128:6 | 67:7 86:6 |
| 161:18 162:6,9 | 179:13 244:14 | 129:2,7 139:12 | 103:12 117:12 |
| 163:13,15,16 | notified 29:20 | 139:12 150:2 | 164:12 |
| 165:7 166:1,9 | 44:20 55:2,10 | 151:7,8 160:5 | objected 27:20 |
| 166:17,18 | 139:20 154:21 | 163:25 169:16 | objecting 33:23 |
| 168:3 169:8,20 | 155:11 161:2 | 188:9 191:5 | objection 26:25 |
| 169:21 170:14 | 161:13,16,25 | 192:16 203:16 | 33:9,19 37:1,3 |
| 173:18 174:3 | 180:20 186:15 | 206:4,5,7,9 | 39:9 50:4 |
| 174:10,15 | notify 35:2 | 209:24 210:14 | 61:22 69:3 |
| 175:12 176:22 | 54:20,21,22 | 212:25 218:14 | 71:8 86:7 |
| 176:23 177:3 | 55:1 56:1 | 218:16,18 | 110:15,15,18 |
| 178:17 179:20 | 109:8,8 172:21 | 239:13 243:1 | 132:20 138:1 |
| 179:21 181:1 | 174:17 179:7 | 274:12 277:5 | 158:10 185:10 |
| 182:3,9 192:16 | novo 50:9 58:8 | 295:23 296:1 | objections |
| 192:17,19,19 | nsb 141:12 | numbered | 24:21 26:3 |
| 193:1 195:19 | nsl 28:7 29:24 | 239:18 | 38:18 39:6 |
| 200:1,3,6,6,11 | 178:9 | numbers 50:15 | 48:6 209:11 |
| 200:23 201:9 | nsl's 178:17 | 51:23 52:24 | 261:24 285:5 |
| 201:15,18 | nsp 160:9 | 55:15,18 58:14 | 298:2 |
| 202:2 243:8,15 | 180:24 | 60:25 89:18 | objects 164:15 |
| 243:17 244:9 | nu 172:9,9,18 | 110:24 111:2 | observe 82:19 |
| 244:15,17,18 | 174:5 | 111:22 112:12 | 89:8 120:15 |
| 244:23 296:20 | number 21:20 | 119:9 130:18 | 130:8 255:13 |
| 296:21,25 | 25:9 26:7 | 148:13 214:9 | observed 99:6 |
| 297:6,11,12,17 | 31:18 42:1,2 | 224:5 230:4 | obtain 142:5 |
| 297:19 298:11 | 51:4,6,14 | 240:12 241:10 | obtained 71:2 |
| 298:14 307:6 | 54:12 58:19 | 241:11 272:15 | 193:18 |
| 307:13,17 | 59:14 60:10,23 | numeric 229:21 | obtains 141:24 |
| noticed 39:13 | 61:8 72:7 | numerical 46:6 | obviously 31:6 |
| 88:7 139:2 | 77:20,21,21 | o | 88:3 148:6 |
| notices 34:6 | 81:6,7,19 | o 21:1 172:13 | 151:1,22 154:8 |
| 39:14 44:24,25 | 86:21 103:21 | $207: 21$ | 265:19 272:11 |
| 44:25 | 105:9 108:10 | object 26:1 | 272:12 278:8,9 |
|  | 114:23 118:11 | $31: 7 \text { 50:7 58:1 }$ | 278:16 299:9 |

[obviously - okay]

| $300: 11$ | $214: 12,16$ | $13: 1416: 16$ | $34: 17,2135: 7$ |
| :---: | :---: | :---: | :--- |
| occidental | $215: 2216: 11$ | $17: 2,1218: 2$ | $35: 1036: 18$ |
| $169: 11$ | $238: 6261: 1,5$ | $18: 1219: 2$ | $37: 8,1439: 4$ |
| occurring | $271: 3,10,13,15$ | $21: 425: 10$ | $40: 3,14,15,22$ |
| $260: 4302: 17$ | $301: 8302: 2$ | $31: 18,2136: 3$ | $45: 3,5,16,19$ |
| ocd $1: 717: 13$ | $304: 14305: 25$ | $38: 644: 11$ | $46: 11,20,25,25$ |
| $93: 13109: 13$ | $306: 13307: 22$ | $66: 13,1672: 10$ | $47: 549: 10$ |
| $122: 21149: 11$ | offsets $173: 11$ | $76: 2285: 14,18$ | $53: 1954: 3,5$ |
| $157: 12160: 4$ | offsetting $27: 16$ | $89: 2295: 23$ | $54: 14,1656: 2$ |
| $184: 21196: 2$ | $136: 18140: 8$ | $103: 7117: 7$ | $56: 7,1464: 3$ |
| $212: 19,25$ | $150: 21160: 25$ | $149: 13152: 7$ | $64: 1665: 8,16$ |
| $213: 18233: 4$ | $161: 1173: 13$ | $153: 6,18156: 5$ | $65: 1973: 21$ |
| ocd's $185: 5$ | $173: 22216: 10$ | $157: 19158: 3,6$ | $77: 7,1984: 5$ |
| odd $113: 25$ | $217: 14237: 23$ | $158: 7,9159: 8$ | $87: 2490: 15$ |
| offend $102: 24$ | $238: 18240: 6$ | $159: 15162: 11$ | $93: 6,1694: 2,8$ |
| offending | $292: 23307: 14$ | $163: 19164: 1$ | $96: 3,5100: 18$ |
| $28: 17$ | $308: 6309: 17$ | $166: 23167: 4,6$ | $100: 23101: 2$ |
| office $22: 10$ | offshoots $108: 8$ | $170: 15,24$ | $101: 12,21$ |
| $23: 525: 14$ | oftentimes | $172: 9177: 9$ | $102: 7,12$ |
| $26: 1033: 1,13$ | $108: 12$ | $179: 23180: 3$ | $106: 16,18,21$ |
| $36: 938: 12$ | oh $47: 1048: 23$ | $182: 15184: 5$ | $107: 12108: 1$ |
| $55: 1,956: 1$ | $53: 2385: 9$ | $184: 18191: 14$ | $108: 13109: 6$ |
| $57: 664: 22$ | $96: 3113: 24$ | $191: 17,22,23$ | $110: 13113: 14$ |
| $65: 377: 13$ | $143: 1154: 9$ | $192: 8193: 8,13$ | $113: 21115: 3,5$ |
| $80: 1685: 17$ | $155: 22157: 1,4$ | $193: 17194: 12$ | $116: 20,25$ |
| $103: 9117: 2,9$ | $183: 7203: 14$ | $196: 16235: 11$ | $122: 23123: 9$ |
| $127: 2140: 5$ | $203: 23234: 1$ | $255: 21,25$ | $124: 15125: 7$ |
| $141: 17144: 5$ | $236: 7240: 16$ | $258: 4,9264: 3$ | $125: 10,15,22$ |
| $157: 13179: 7$ | $256: 25269: 16$ | $265: 7,17$ | $126: 1,22$ |
| $244: 5$ | $278: 23281: 19$ | $270: 20271: 20$ | $131: 25142: 2$ |
| officer $311: 1,2$ | $307: 7$ | $272: 13,22$ | $142: 13,23$ |
| offset $147: 25$ | oil $1: 3,72: 1,14$ | $273: 2,7275: 4$ | $143: 2,16,22$ |
| $155: 6161: 18$ | $3: 1,5,204: 14$ | $282: 2292: 23$ | $145: 20146: 10$ |
| $173: 3174: 9$ | $6: 7,11,15,21$ | okay $25: 9$ | $146: 13147: 14$ |
| $214: 9,9,10,11$ | $7: 111: 312: 11$ | $26: 1933: 4$ | $148: 3149: 2,4$ |
|  |  |  |  |

Page 61
[okay - order]

| $149: 5152: 17$ | $299: 25301: 3$ | 102:16 268:22 | operator $54: 20$ |
| :--- | :---: | :---: | :---: |
| $153: 22156: 24$ | $301: 24302: 12$ | opened $39: 13$ | $54: 21121: 13$ |
| $157: 4159: 3$ | $302: 13303: 24$ | $129: 12$ | $141: 24150: 9$ |
| $163: 11170: 7$ | $305: 9,21306: 8$ | opening $254: 13$ | $150: 11173: 4$ |
| $170: 23171: 5$ | $306: 15,17$ | operated $2: 5$ | $174: 10191: 8$ |
| $171: 24178: 23$ | $308: 8309: 6$ | $60: 5128: 23$ | $193: 7241: 10$ |
| $179: 4186: 3$ | oklahoma | $161: 1$ | $243: 25$ |
| $189: 3195: 13$ | $284: 7$ | operating $2: 18$ | operators $76: 3$ |
| $196: 21197: 17$ | old $23: 12$ | $3: 164: 195: 6$ | $76: 593: 20$ |
| $198: 21199: 5,9$ | $187: 13189: 16$ | $5: 1212: 214: 2$ | $161: 1,2,18$ |
| $199: 17,24$ | $203: 19$ | $14: 2015: 2$ | $169: 4173: 12$ |
| $200: 22,25$ | once $24: 193: 3$ | $22: 1531: 23$ | $201: 5,9,18,19$ |
| $201: 11202: 25$ | $106: 17113: 1$ | $33: 11,1536: 7$ | $243: 24307: 23$ |
| $203: 14,23$ | $140: 20151: 23$ | $36: 11,1357: 15$ | $307: 24$ |
| $205: 3213: 25$ | $169: 15174: 13$ | $57: 1862: 12$ | opinion $75: 25$ |
| $214: 3,19$ | $188: 2190: 13$ | $66: 767: 4$ | $76: 1243: 3,6$ |
| $216: 18218: 19$ | $206: 22226: 15$ | $96: 2297: 2$ | $246: 14260: 13$ |
| $219: 11223: 15$ | $227: 3228: 2,6$ | $100: 1102: 19$ | $292: 17293: 22$ |
| $223: 23225: 16$ | $253: 18,21$ | $110: 1,3,22,25$ | $295: 23$ |
| $228: 9233: 21$ | $254: 2$ | $112: 15116: 15$ | opinions $32: 14$ |
| $234: 1235: 13$ | one's $128: 24$ | $116: 24117: 4$ | opportunities |
| $235: 16236: 16$ | ones $135: 5$ | $118: 7122: 9$ | $29: 15$ |
| $236: 18243: 3,7$ | $242: 9266: 15$ | $126: 18132: 16$ | opportunity |
| $244: 12245: 1$ | $267: 16278: 7$ | $132: 17228: 12$ | $29: 778: 25$ |
| $245: 19246: 7$ | ongoing $23: 20$ | $230: 16,18$ | $80: 11244: 22$ |
| $251: 17261: 13$ | online $226: 3,5$ | $254: 5,19$ | opposes $28: 7$ |
| $263: 13,18$ | $259: 21,24$ | operation | opposition |
| $264: 10266: 4,5$ | $260: 3267: 2,4$ | $227: 6292: 18$ | $106: 7$ |
| $266: 5267: 5,17$ | $267: 7268: 1$ | operationally | orange $221: 9$ |
| $269: 20270: 3,4$ | onshore $284: 12$ | $269: 21282: 24$ | $230: 20249: 22$ |
| $270: 11,16$ | onward $234: 12$ | operations | $253: 6,6,25$ |
| $272: 5278: 22$ | onwards | $29: 21232: 12$ | $254: 15258: 12$ |
| $279: 7,22$ | $238: 11250: 14$ | $236: 4,12$ | order $2: 44: 2$ |
| $281: 19283: 1$ | open $66: 5$ | $252: 15260: 12$ | $5: 86: 87: 16$ |
| $288: 25293: 1$ | $84: 2589: 20$ | $268: 3,4282: 8$ | $8: 2,1020: 5$ |
|  |  |  |  |

[order - owned]

| $26: 427: 21$ | $254: 24257: 12$ | outer $201: 21$ | overlapping |
| :--- | :---: | :---: | :---: |
| $35: 3,8,936: 24$ | $259: 13261: 2$ | outline $134: 25$ | $4: 95: 1881: 2$ |
| $36: 2538: 17,18$ | $264: 5265: 12$ | $220: 13,13$ | $81: 2186: 22$ |
| $38: 2050: 3,23$ | $266: 18271: 1,6$ | $237: 16238: 15$ | $87: 2588: 4,15$ |
| $51: 758: 20$ | $279: 3308: 17$ | $239: 4$ | $98: 19127: 25$ |
| $59: 7,1577: 21$ | $308: 17,24$ | outlined $187: 6$ | $128: 8,23129: 6$ |
| $77: 2278: 4,14$ | order's $189: 16$ | $285: 24$ | $129: 10$ |
| $78: 18107: 15$ | ordering $189: 5$ | outlines $227: 8$ | overlaps $81: 18$ |
| $108: 14,25$ | $189: 9$ | outlining | overlying |
| $109: 1110: 25$ | orders $21: 21$ | $129: 14285: 9$ | $225: 13287: 13$ |
| $111: 2,16136: 7$ | $35: 24,24111: 5$ | $309: 9$ | $288: 14$ |
| $141: 23,25$ | $111: 11,14,25$ | outright $277: 9$ | overnight |
| $147: 2150: 2,3$ | $183: 4,9,17,19$ | outs $82: 2089: 8$ | $21: 14$ |
| $150: 8,9,12$ | $188: 21201: 1$ | $120: 15130: 9$ | overrides $102: 4$ |
| $151: 7,8178: 20$ | $213: 6218: 7$ | outside $49: 17$ | overriding |
| $186: 9,12,16,19$ | $245: 25271: 11$ | $106: 9277: 11$ | $69: 1879: 7$ |
| $186: 19,20$ | orient $215: 17$ | overall $45: 11$ | $98: 1699: 15$ |
| $187: 4,13,18$ | orientate | $73: 775: 23$ | $100: 24101: 14$ |
| $188: 4189: 4,22$ | $194: 24$ | $258: 6291: 19$ | overview $219: 5$ |
| $191: 6197: 11$ | orientation | $301: 19$ | $219: 16232: 2$ |
| $200: 10203: 3$ | $42: 2471: 20,24$ | overarching | $238: 10285: 25$ |
| $203: 10,22$ | $161: 9166: 4$ | $219: 15$ | $288: 22$ |
| $204: 13,17$ | $169: 5173: 20$ | overestimating | overwriting |
| $205: 9206: 3,4$ | $176: 12181: 20$ | $274: 1$ | $82: 10$ |
| $206: 13,14,16$ | original $113: 6$ | overhead | owe $39: 20$ |
| $206: 21,22$ | $175: 25224: 17$ | $154: 14165: 10$ | $155: 17,22$ |
| $209: 24210: 14$ | $293: 11304: 6$ | $168: 7171: 22$ | $161: 21,22$ |
| $210: 14,15,19$ | $305: 14$ | $175: 13$ | $169: 16177: 1$ |
| $211: 17212: 5$ | originally | overlain $287: 4$ | $309: 8$ |
| $213: 11214: 14$ | $87: 2588: 4$ | $287: 24$ | own $30: 2031: 9$ |
| $218: 14,16,17$ | $151: 9211: 17$ | overlap $81: 16$ | $31: 1034: 7$ |
| $225: 24228: 1$ | $301: 7$ | $87: 19,19,21,24$ | $114: 11131: 10$ |
| $233: 6235: 19$ | outcome | $88: 1595: 20$ | $280: 8308: 5$ |
| $248: 19,20$ | $302: 22305: 14$ | $128: 20,22$ | owned $54: 25$ |
| $250: 13251: 23$ | $311: 15312: 12$ | $129: 1253: 23$ |  |
|  |  |  |  |

## [owner - page]

| owner 105:18 | 243:19 308:5 | oxy's $133: 24$ | $215: 6219: 5$ |
| :---: | :---: | :---: | :---: |
| $111: 18112: 2$ | oxy $6: 18: 1$ | $136: 15208: 12$ | $223: 17,21$ |
| $154: 23166: 10$ | $16: 220: 2$ | $211: 8228: 15$ | $224: 6227: 7$ |
| $169: 10,11$ | $36: 15,17$ | $232: 10233: 14$ | $229: 15233: 17$ |
| 244:1 | $132: 11,14,25$ | $236: 3246: 15$ | $242: 8,13$ |
| owners $42: 10$ | $133: 2,7,10,14$ | $259: 16267: 20$ | $243: 15245: 9$ |
| $52: 854: 22,22$ | $134: 12,14$ | $292: 17294: 20$ | $285: 19288: 20$ |
| $54: 2361: 7,10$ | $135: 19,25$ | $295: 14300: 3$ | $293: 2295: 6$ |
| 69:17,21 70:12 | $136: 5138: 8,12$ | $301: 5308: 5,15$ | packets $46: 21$ |
| $70: 1473: 4,13$ | $139: 21140: 2,7$ | $309: 11$ | $83: 1698: 4$ |
| $73: 1574: 10$ | $141: 2143: 18$ | p | $111: 21133: 18$ |
| $79: 6,782: 9$ | $148: 15205: 18$ | p $9: 1,121: 1$ | $236: 25301: 14$ |
| $88: 2098: 14$ | $205: 20,24$ | $199: 7207: 25$ | pad $60: 5,6$ |
| $99: 16,17$ | $206: 3,21$ | p\&a'ed $241: 25$ | $216: 3221: 4$ |
| $100: 25107: 14$ | $208: 21209: 17$ | $243: 4$ | padilla $9: 5$ |
| $114: 10129: 19$ | $209: 20,22$ | p.m. $268: 24$ | $22: 14,1524: 24$ |
| $154: 17155: 16$ | $210: 12211: 8$ | $310: 10$ | $25: 7158: 7,8$ |
| $159: 16160: 18$ | $211: 14218: 5$ | pa $242: 10,23$ | pads $138: 7$ |
| $160: 19161: 14$ | $218: 17,24$ | pack $224: 6$ | page $83: 17,18$ |
| $161: 15165: 13$ | $219: 2224: 11$ | package $43: 9$ | $84: 4,7,890: 7$ |
| $165: 16,17$ | $226: 1,10228: 1$ | $43: 11118: 16$ | $90: 12,14,22$ |
| $172: 7,8174: 6$ | $228: 5231: 6$ | $246: 9266: 20$ | $91: 5,892: 23$ |
| $174: 6,12$ | $233: 8235: 17$ | packages $39: 15$ | $92: 23,2493: 7$ |
| $175: 19,19,21$ | $245: 13246: 4$ | packer $225: 6,7$ | $93: 25104: 20$ |
| $181: 5243: 10$ | $259: 11261: 13$ | $225: 17,23$ | $114: 9129: 23$ |
| $244: 19,19,23$ | $261: 15,21$ | $265: 13$ | $131: 16,21$ |
| $307: 14308: 3,3$ | $262: 1271: 12$ | packers $225: 23$ | $135: 16,22$ |
| ownership | $271: 13274: 15$ | packet $51: 22$ | $144: 21,25$ |
| $45: 1552: 3,6$ | $280: 10283: 9$ | $60: 15,2469: 25$ | $173: 25200: 5$ |
| $61: 482: 7$ | $283: 16284: 16$ | $70: 1678: 6,8$ | $212: 19,22,22$ |
| $98: 21101: 4$ | $288: 4293: 9,18$ | $79: 383: 21,22$ | $212: 25,25$ |
| $104: 14107: 4$ | $297: 2,3,17,23$ | $86: 1487: 9$ | $213: 2,17,18$ |
| $112: 2119: 11$ | $298: 4302: 6$ | $90: 1992: 18$ | $215: 6,14219: 5$ |
| $129: 18139: 15$ | $304: 11306: 11$ | $104: 12146: 1$ | $223: 20,21$ |
| $139: 25145: 16$ | $309: 13$ | $165: 6,8212: 24$ | $224: 5225: 4$ |
|  |  |  |  |

[page - paths]

| 227:7 229:14 | 189:10,22,25 | parties 23:23 | 176:23 181:6,8 |
| :---: | :---: | :---: | :---: |
| 233:13,17,24 | 204:10 | 27:3 29:25 | 181:11 190:14 |
| 236:24 237:8 | paralegals | 30:5,21 32:2,3 | 192:18 202:1 |
| 238:11,11,24 | 123:22 | 32:11 35:16 | 205:24 243:8,9 |
| 238:25,25 | parameters | 37:4,22 39:2 | 243:17 244:5,7 |
| 239:24,25,25 | 230:16,18 | 41:22 42:1,8,8 | 244:12,15 |
| 240:1 1 242:7,13 | 254:5,19 | 52:15 62:4 | 297:1,3,8,16,16 |
| 244:9 245:9,9 | parrot 9:6 | 65:1 69:13,15 | 307:12,15,24 |
| 246:9,9 249:6 | 22:25 23:1 | 69:22 70:2 | 308:1,3 311:11 |
| 249:6 251:19 | 96:23,25 97:6 | 73:14 79:11 | 311:14 312:8 |
| 263:22,22 | 97:12 100:12 | 101:13,16,18 | 312:11 |
| 268:18 270:15 | 100:18,21 | 101:23 104:14 | parting 231:15 |
| 272:5,6 285:18 | 101:1,6,16,25 | 105:2,2 106:22 | 231:19,24,25 |
| 285:19 288:20 | 102:6,8,22 | 106:23 107:8 | 282:10,14 |
| 295:7,9,11 | part 63:18 | 107:10 108:22 | partner 52:13 |
| 304:19 307:19 | 70:16 71:23 | 108:25 109:1 | partners 110:6 |
| 307:20 | 90:19 92:17 | 110:5 119:15 | parts 29:1 |
| pages 93:5 | 165:15 222:16 | 119:17,18,24 | 224:21 |
| 212:18,23,24 | 280:11,16 | 120:7 121:21 | party 29:17 |
| 213:3 223:19 | 281:13,15 | 121:23 123:6 | 70:1 93:20 |
| 233:16 243:14 | 291:25 | 124:8,9,14,20 | 101:11 103:15 |
| 243:16 | participant 9:4 | 125:17 135:15 | 144:23 221:2 |
| pagination | 9:5,6,7,8,9,10 | 135:17,19,25 | 244:1 254:3 |
| 212:17 | 9:11,12,13,14 | 136:1,2,6,6,9 | 307:15,25 |
| papa 86:25 | 9:15 | 136:11,16,18 | pass 144:16 |
| 87:1,6,7 | participate | 136:20 139:2,9 | 218:20 262:4 |
| paper 24:23 | 145:6 | 139:17 140:7 | 294:2 |
| 43:6,7 46:21 | participating | 140:19 144:22 | passed 151:2 |
| 62:9 71:21 | 82:11 | 145:8 154:20 | past 64:7 |
| paperwork | particular | 160:6,21 | 172:22 197:18 |
| 109:13 | 42:20 43:20 | 165:19 166:9 | 246:24 |
| paragraph | 150:1 152:5 | 168:13,16 | path 185:12 |
| 69:7 107:3 | 256:21 259:8 | 169:9 171:3 | 221:9 |
| 150:9,10 | 266:20 276:2 | 172:13,16 | paths 221:20 |
| 178:19 189:5,7 | 304:7 307:8 | 174:5,18 176:3 |  |


| paula 9:13 | percentage | permian 3:21 | 80:19 84:22 |
| :---: | :---: | :---: | :---: |
| 66:20 80:15 | 53:20 160:19 | 4:7 5:16 12:11 | 85:20 97:10 |
| 85:17 127:1 | 168:14 172:10 | 13:2 15:12 | 102:14 103:18 |
| pay 106:9 | 231:21 258:13 | 33:11,14,23 | 109:16 110:21 |
| paying 143:11 | 275:12 276:11 | 34:2,6 38:10 | 126:11 127:5 |
| pdf 90:14 | percentages | 66:13,16,18,21 | 132:3,24 153:1 |
| 212:21,21,22 | 53:14 165:14 | 72:10,14 76:22 | 156:25 157:15 |
| 212:25 213:17 | perfect 49:10 | 80:13,17 83:8 | 158:13 159:12 |
| pdfs 131:8 | 81:25 86:13 | 85:2 86:3 | 164:11 179:15 |
| penalty $74: 18$ | 88:15 89:21 | 92:16 126:23 | 183:24 184:24 |
| 101:10 | 136:7 247:10 | 127:3 130:21 | 186:2 190:22 |
| penasco 118:10 | perfectly 37:19 | 132:7 164:9 | 205:4 |
| netrate | perforation | 169:12 | perspective |
| 238:7 241:24 | 193:11 231:9 | permission | 29:9,10 75:19 |
| 242:19 | 231:16 | 97:23 | pertains 78:1 |
| penetrated | perform 260:2 | permit 188:7 | pertinent |
| 176:14 239:20 | performance | 233:3 235:2 | 215:21 224:22 |
| penetrating | 278:18 | permits 2:17 | 248:18 |
| 194:7 240:8 | performed | 78:19,21,22 | petroleum 3:10 |
| penny 25:1 | 226:11 227:6 | permitted | 11:13 48:17 |
| people 55:17 | 227:22 255:2 | 207:7 264:23 | 50:11,15 53:2 |
| 93:20 106:4 | period 138:15 | permitting | 57:9 61:18 |
| 108:3 109:8,10 | 210:13 229:8 | 21:13 196:2 | 69:171:6 |
| 144:11 155:11 | 252:10 255:13 | perpendicular | 113:3 208:21 |
| 183:12 | 259:6 271:7 | 217:15 | 209:2,9 283:22 |
| percent 53:22 | 272:2 302:21 | person 60:20 | 284:5,9 285:3 |
| 74:12,13,15,17 | 303:9 304:21 | 115:25 154:19 | ph 16:6,9 |
| 74:17,19,19 | 304:24 305:13 | personally | 133:25 137:17 |
| 188:11 225:10 | periods 232:19 | 65:18 73:7 | 172:9,18 174:5 |
| 231:5,25 | 247:16 303:15 | 197:13 | 204:5 215:23 |
| 258:12,21 | perm 287:14,25 | persons 33:17 | 295:15 303:11 |
| 274:19,21,22 | 288:15 | 36:23 38:15 | pick 106:1 |
| 275:1 276:20 | permeability | 47:25 50:1 | picks 288:21 |
| 304:4,8,20 | 287:1 288:1 | 54:18,19 57:25 | piece 24:23 |
| 305:2,22 | 291:15 | 76:17 77:17 |  |

[pilot - pool]

| pilot 8:4,9 | 169:7 182:1 | point 30:5,24 | 103:21 107:6,9 |
| :---: | :---: | :---: | :---: |
| 206:12 210:13 | 228:5 | 34:1 53:13 | 108:10,22,25 |
| 218:14 259:5 | plant 223:5 | 81:22 103:14 | 109:1 110:25 |
| pinch 82:20 | plat 52:2,5 61:4 | 111:17 155:12 | 111:17 113:20 |
| 89:8 120:15 | 104:14 107:4 | 170:11 179:10 | 115:25 118:8 |
| 130:9 | 112:1 119:8 | 187:20 197:3 | 118:11 127:11 |
| pinching 99:7 | 135:13 136:17 | 203:8 217:24 | 127:14,15,15 |
| pipeline 222:25 | 154:15 176:11 | 220:16,16 | 127:17,18,24 |
| 223:1 | plats 41:20 | 222:8 223:4 | 128:7 129:15 |
| pits 255:2 | 160:17 165:12 | 230:23 254:17 | 129:20 133:8 |
| place 96:10 | 172:3 181:3,4 | 255:16 256:3 | 135:10,10,19 |
| 107:17 149:23 | players 214:8 | 265:1 266:3 | 136:1,5,16 |
| 186:16 196:14 | ple 235:4 | 267:11 270:20 | 140:3,7 154:5 |
| 220:22 229:8 | 266:13,13 | 271:8,20 275:6 | 154:23 155:24 |
| 236:9,12 239:2 | please 21:10 | 276:2,24 | 155:25 156:18 |
| 259:25 280:22 | 22:8 25:12 | 300:24 301:11 | 159:15 160:1 |
| placed 147:16 | 44:2 65:5 96:7 | 308:19 | 161:21,21 |
| placement | 124:3 153:24 | pointing | 162:23,24 |
| 60:13 225:1 | 154:2 198:4,4 | 289:16 | 164:20,25 |
| 265:13 | 199:10 206:2 | points 171:17 | 166:15,16 |
| places 221:1 | 207:19 208:10 | 219:20,21 | 167:16,19 |
| plan 7:10 23:24 | 208:16 263:20 | 227:17 238:2 | 168:1 169:18 |
| 34:23 45:23 | 263:25 283:13 | 246:22 247:23 | 171:11,13 |
| 150:19 226:13 | 301:23 | 250:9 270:14 | 172:4 174:24 |
| 228:7 236:9,11 | pleases 102:2 | pool 5:67:21 | 177:4,5 180:11 |
| 236:13 263:20 | plot 247:9,12 | 7:23 39:21 | 182:11,11 |
| 267:21,22 | 247:12 249:19 | 41:9 50:18,24 | 186:7,20 191:6 |
| 268:1 279:18 | 252:7 | 51:8 58:14,21 | 191:7,13,20,21 |
| 281:11 309:10 | plotted 256:7 | 59:5,5,16 | 191:24 192:3 |
| planning | 257:11 | 67:20 69:13,16 | 193:5,9,10,12 |
| 173:24 176:20 | plotting 258:13 | 80:22,24 82:9 | 195:6,9,12 |
| 176:20,21 | plugged 197:16 | 82:12 86:16,18 | 196:24 197:4 |
| plans 34:8,9 | 198:17 201:10 | 86:22 87:3 | 197:12 199:1 |
| 42:25 78:10,23 | plus 231:3,22 | 88:21 97:14 | 200:10 201:1 |
| 161:10 166:9 | 282:8 | 101:13,23 | 201:19,20,22 |

[pool - prepared]

| $202: 1203: 3,19$ | 175:23 181:6 | 186:22 $187: 6$ | $309: 15$ |
| :---: | :---: | :---: | :---: |
| $203: 21204: 4,5$ | pooling $1: 13,18$ | $188: 3204: 13$ | practicable |
| $211: 22213: 12$ | $1: 222: 243: 2,6$ | pop $93: 24$ | $32: 16$ |
| $213: 12,22$ | $3: 11,17,22$ | $95: 10126: 3$ | pre $21: 2029: 16$ |
| $225: 12235: 9,9$ | $4: 11,15,215: 2$ | $278: 19$ | $35: 3,9,23,24$ |
| $235: 11,14$ | $5: 13,206: 5,12$ | pops $93: 3,23$ | $36: 24,2538: 17$ |
| $239: 22240: 9$ | $6: 16,227: 2$ | $203: 21$ | $38: 18,2050: 2$ |
| $241: 21243: 22$ | $12: 1213: 4$ | porosity $99: 12$ | $158: 16$ |
| pool's 191:17 | $14: 315: 14$ | $286: 9287: 5,6$ | precise $299: 10$ |
| $193: 17194: 10$ | $17: 342: 1$ | $287: 12,16,22$ | predecessors |
| 201:20 | $50: 2351: 7$ | $288: 12,16$ | $115: 19$ |
| pooled $41: 22$ | $58: 2059: 15$ | portal $196: 6$ | predict $302: 2$ |
| $42: 8,952: 3$ | $68: 1078: 4,14$ | portal's $196: 6$ | predicted |
| $61: 569: 18,18$ | $81: 987: 11$ | portion $180: 23$ | $298: 23300: 4$ |
| $69: 2273: 15$ | $98: 7,16100: 24$ | $187: 13188: 18$ | $304: 13$ |
| $77: 2379: 6$ | $104: 21105: 20$ | $221: 4284: 15$ | predicting |
| $101: 15,19$ | $108: 9116: 2$ | $284: 17$ | $300: 16301: 11$ |
| $102: 5,18$ | $118: 17124: 9$ | positions $30: 1$ | $302: 15304: 9$ |
| $103: 15104: 14$ | $124: 20128: 14$ | positive $249: 16$ | prediction |
| $105: 2,3,4$ | $133: 21136: 3,5$ | $261: 3,12$ | $229: 3$ |
| $106: 18107: 15$ | $144: 1151: 15$ | possibilities | predictive |
| $111: 5,16112: 3$ | $151: 15,24$ | $278: 3$ | $299: 10$ |
| $115: 21123: 6$ | $154: 11,23$ | possibility | prefer $73: 7$ |
| $124: 14144: 22$ | $155: 22159: 20$ | $275: 19$ | preferred |
| $144: 23,25$ | $161: 22162: 4$ | possible $32: 12$ | $42: 2471: 24$ |
| $145: 1,8,9$ | $165: 9166: 18$ | possibly $273: 25$ | $166: 4173: 20$ |
| $150: 3,16$ | $169: 22171: 7,8$ | $273: 25$ | $181: 20$ |
| $154: 19155: 12$ | $174: 16177: 3$ | post $29: 1685: 7$ | preliminary |
| $160: 6,20,21$ | $177: 22,25$ | postpone $78: 23$ | $149: 20$ |
| $165: 17166: 10$ | $178: 13,18$ | potential | preparation |
| $166: 11168: 13$ | $182: 9183: 4$ | $134: 17236: 9$ | $280: 23$ |
| $168: 16169: 9$ | pools $127: 13$ | $260: 2,8268: 2$ | prepare $261: 13$ |
| $169: 10,11$ | $129: 13142: 20$ | $268: 5309: 14$ | prepared $39: 21$ |
| $172: 7,8,11$ | $169: 17,17$ | potentially | $140: 5151: 16$ |
| $174: 5,7175: 20$ | $172: 4186: 8,17$ | $221: 6232: 18$ | $211: 8,9213: 5$ |
|  |  |  |  |

[prepared - proceed]

| $213: 10215: 1$ | $221: 10222: 21$ | prevalent | prior $68: 22$ |
| :---: | :---: | :--- | :--- |
| $223: 23224: 13$ | $222: 22,23,23$ | $265: 21$ | $100: 13120: 25$ |
| $233: 14242: 3,8$ | $222: 25228: 11$ | prevent $137: 3$ | $125: 8151: 9$ |
| $242: 10245: 22$ | $228: 19229: 1,5$ | $293: 24$ | $178: 13183: 4$ |
| $246: 4261: 14$ | $229: 12,23$ | prevention | $183: 18263: 20$ |
| $283: 20285: 8$ | $230: 22231: 2,3$ | $192: 6236: 11$ | $263: 22279: 18$ |
| $292: 6296: 7,25$ | $231: 5,15,18,20$ | $236: 13246: 16$ | $311: 5$ |
| $297: 10312: 3$ | $231: 22,24$ | $263: 19279: 18$ | priority $281: 7$ |
| preparing | $232: 1,4253: 7$ | $309: 10$ | $281: 9$ |
| $145: 4$ | $253: 8,14,15,19$ | preview $250: 10$ | probably $25: 3$ |
| present $9: 2$ | $253: 20254: 1,9$ | previous | $44: 23125: 24$ |
| $38: 2386: 11$ | $254: 12,16,22$ | $160: 13175: 5$ | $148: 2152: 2$ |
| $97: 2399: 1$ | $255: 3,5,7,11,14$ | $219: 24225: 24$ | $172: 22173: 9$ |
| $100: 14149: 22$ | $255: 17,18$ | $236: 15239: 7$ | $218: 2263: 6$ |
| $207: 1,5294: 19$ | $259: 11277: 24$ | $293: 14295: 16$ | $276: 14278: 23$ |
| $294: 22$ | $279: 3281: 24$ | previously | $300: 20303: 22$ |
| presentation | $281: 25282: 5,7$ | $68: 1778: 11$ | $307: 4$ |
| $39: 1074: 11$ | $282: 7,10,13,14$ | $81: 1287: 14$ | problem $39: 18$ |
| $139: 23293: 12$ | $282: 17,21$ | $98: 10,24$ | $109: 5142: 11$ |
| presented | $296: 2,12,14$ | $100: 17118: 21$ | $179: 3218: 4$ |
| 92:15 94:25 | $303: 9$ | $121: 22128: 17$ | problems $21: 13$ |
| $100: 17219: 6$ | pressures | $133: 25136: 24$ | proceed $39: 3$ |
| $293: 18295: 7$ | $230: 17251: 25$ | $137: 18140: 20$ | $39: 1050: 11$ |
| $303: 1,10$ | $253: 22277: 22$ | $161: 24208: 23$ | $58: 1267: 13$ |
| presenting | $280: 13281: 17$ | $217: 7218: 6,11$ | $77: 1880: 20$ |
| $148: 22151: 18$ | $295: 19300: 8$ | $219: 6,8241: 4$ | $86: 997: 11$ |
| $218: 13$ | $309: 5$ | $245: 2249: 25$ | $103: 19110: 22$ |
| preserve | presumably | $260: 24283: 17$ | $117: 16127: 6$ |
| $158: 11$ | $199: 21$ | $293: 10,18,18$ | $132: 25134: 20$ |
| preserving | pretty $21: 10$ | $295: 15307: 12$ | $149: 18154: 3$ |
| $58: 866: 24$ | $46: 2,7116: 5$ | primary $225: 1$ | $159: 13164: 17$ |
| president | $118: 6153: 23$ | $278: 7$ | $171: 4180: 9$ |
| $192: 23199: 7$ | $255: 12256: 1$ | prime $99: 2$ | $186: 22188: 1$ |
| pressure $8: 8$ | $260: 11269: 7$ | $120: 24137: 8$ | $190: 23205: 25$ |
| $206: 11210: 10$ | $275: 21305: 17$ |  | $207: 7208: 10$ |
|  |  |  |  |

[proceed - proof]

| $215: 24296: 19$ | $193: 16194: 10$ | $275: 4281: 4$ | $221: 13223: 7,9$ |
| :---: | :--- | :--- | :--- |
| 308:18 | $196: 16197: 3$ | $292: 24300: 25$ | $223: 13235: 1$ |
| proceeding | $197: 21,23$ | $304: 14305: 25$ | $237: 16,22$ |
| 8:20 37:3,12 | $211: 25212: 1$ | $306: 13309: 18$ | $239: 3240: 2$ |
| $37: 13110: 18$ | $214: 13215: 21$ | productivity | $243: 12246: 19$ |
| $115: 21310: 11$ | $224: 13225: 14$ | $274: 23$ | $246: 19,23$ |
| $312: 4$ | $226: 21,22,25$ | professional | $248: 6249: 4,5$ |
| proceedings | $233: 1,2234: 4$ | $68: 1678: 12$ | $249: 8259: 6,9$ |
| $311: 3,4,6,8$ | $234: 5241: 19$ | professional's | $259: 20260: 10$ |
| $312: 6$ | $241: 21253: 18$ | $11: 1412: 3$ | $260: 18268: 9$ |
| process $57: 5$ | $254: 13,13$ | $14: 13,2151: 25$ | $268: 17269: 13$ |
| $140: 14178: 9$ | $256: 4266: 25$ | $61: 1104: 12$ | $275: 22281: 21$ |
| $265: 5$ | $267: 4,13281: 6$ | $111: 23$ | $286: 6289: 2$ |
| processing | product $206: 22$ | profile $257: 4$ | $290: 18,21,23$ |
| $192: 12223: 5$ | production | $270: 13272: 6$ | $291: 2293: 8$ |
| produce $138: 9$ | $1: 12,1722: 6$ | $274: 8$ | $295: 18296: 15$ |
| $138: 13,15$ | $85: 23141: 19$ | profiles $274: 13$ | $303: 4304: 12$ |
| $181: 25192: 3$ | $142: 9150: 21$ | profitable | $309: 3$ |
| $257: 25$ | $164: 5,8169: 6$ | $176: 19$ | projected |
| produced | $173: 22176: 18$ | program | $27: 10$ |
| $176: 15192: 14$ | $181: 25191: 25$ | $150: 22,23$ | projects $222: 9$ |
| $193: 21197: 18$ | $193: 3,4,16,19$ | progress $25: 7$ | $229: 25277: 13$ |
| $197: 19198: 18$ | $196: 14224: 25$ | $78: 17$ | prolonged |
| $206: 8210: 6$ | $226: 19230: 24$ | project $8: 5,9$ | $232: 19280: 13$ |
| $220: 23232: 11$ | $253: 6254: 1,15$ | $96: 7,14157: 3$ | $281: 16$ |
| $232: 15,21,24$ | $255: 4256: 1,14$ | $194: 4206: 6,12$ | promise $283: 2$ |
| $245: 15,16$ | $257: 9258: 4,6$ | $206: 20209: 24$ | prompted |
| $256: 10,12$ | $260: 21261: 5$ | $210: 1,13,23,24$ | $93: 11$ |
| $266: 14,15$ | $261: 10263: 16$ | $210: 25211: 4$ | promptly $78: 20$ |
| $267: 15273: 19$ | $264: 4,16,22$ | $211: 12213: 8$ | pronounce |
| producers $2: 15$ | $265: 4,8,16,17$ | $213: 12216: 15$ | $110: 12$ |
| $31: 18,21$ | $265: 17,25$ | $218: 7,12,14,15$ | pronounced |
| producing $42: 3$ | $268: 22271: 15$ | $219: 7,17,18,23$ | $110: 6$ |
| $160: 8191: 17$ | $272: 2,13,23$ | $219: 24,25$ | proof $119: 16$ |
| $192: 10193: 8$ | $273: 2,9,10$ | $220: 1,7,9,13$ | $119: 21146: 3$ |
|  |  |  |  |
|  |  |  |  |

[proper - publication]

| proper 44:19 | 134:9 135:1,2 | 193:14 | provider $29: 17$ |
| :---: | :---: | :---: | :---: |
| $151: 8159: 1$ | $135: 7137: 12$ | protect $29: 22$ | provides $52: 16$ |
| $169: 5174: 18$ | $150: 14155: 5$ | $137: 4$ | $62: 598: 21$ |
| $226: 15$ | $160: 2,4165: 7$ | protection | $118: 16,25$ |
| properly $44: 5$ | $168: 3171: 20$ | $293: 23$ | $119: 16120: 11$ |
| properties | $175: 12181: 1$ | protective | $121: 1136: 24$ |
| 291:12 | $181: 12193: 1$ | $192: 5243: 4$ | providing |
| proposal 40:25 | $194: 11206: 17$ | protocols | $121: 17148: 9$ |
| $42: 1252: 6$ | $206: 18210: 23$ | $275: 20$ | proving $295: 16$ |
| 60:1 61:6 | $210: 25213: 6$ | proud $182: 5$ | provision $184: 2$ |
| 63:22 70:1,5,6 | $213: 14214: 1$ | provide $29: 16$ | $190: 7200: 11$ |
| $70: 1082: 13$ | $218: 13223: 24$ | $47: 964: 4$ | provisions |
| $88: 21,22$ | $224: 2,18,21$ | $65: 16102: 17$ | $206: 15210: 18$ |
| $104: 15112: 3$ | $227: 15229: 11$ | $129: 23135: 23$ | proximity $29: 5$ |
| $113: 7,8119: 24$ | $229: 12,19$ | $140: 22144: 4$ | $40: 2063: 12$ |
| $129: 22136: 10$ | $230: 17232: 3$ | $163: 16170: 9$ | $67: 2198: 4$ |
| $155: 1160: 22$ | $232: 23237: 24$ | $170: 13179: 19$ | $147: 21$ |
| $165: 19168: 17$ | $238: 17239: 5$ | $182: 7191: 21$ | prudent $121: 13$ |
| $175: 25176: 1$ | $239: 16240: 5$ | $199: 25213: 3$ | psi $206: 11$ |
| $181: 9,11$ | $285: 10292: 2$ | $213: 20214: 8$ | $210: 11,11$ |
| proposals | $292: 17$ | $223: 25244: 14$ | $228: 13,15,21$ |
| $23: 2175: 24$ | proposing | $244: 17295: 1$ | $230: 2231: 11$ |
| propose $165: 3$ | $67: 2168: 1,2$ | $298: 9308: 17$ | $232: 4253: 17$ |
| $223: 25295: 1$ | $69: 872: 1$ | $309: 8$ | $282: 1,23,24$ |
| proposed $16: 17$ | $133: 10165: 2$ | provided $78: 5$ | public $8: 22$ |
| $17: 1318: 3,13$ | $211: 14,15$ | $81: 982: 3$ | $311: 22$ |
| $19: 341: 14$ | $213: 13,22$ | $87: 1088: 5$ | publication |
| $52: 161: 3$ | $215: 4216: 14$ | $104: 11119: 3$ | $11: 913: 10,22$ |
| $75: 2281: 6,17$ | $216: 17224: 11$ | $121: 18,21$ | $14: 815: 20$ |
| $86: 2587: 6,20$ | $232: 10246: 15$ | $122: 2128: 14$ | $16: 11,2117: 8$ |
| $111: 25118: 12$ | $289: 15$ | $139: 1140: 6$ | $17: 1818: 8,18$ |
| $119: 5,8120: 13$ | proration $2: 23$ | $191: 1223: 16$ | $19: 820: 943: 5$ |
| $120: 20,21$ | $6: 187: 4$ | $224: 24244: 13$ | $43: 16,1944: 1$ |
| $121: 5,6,7,11,14$ | $159: 17175: 4$ | $244: 18285: 15$ | $47: 752: 20$ |
| $128: 4,21134: 4$ | $180: 17191: 15$ | $296: 25297: 12$ | $62: 870: 20$ |
|  |  |  |  |
|  |  |  |  |

Page 71

## [publication - questions]

| 79:9 82:25 | pumps 226:21 | q | 305:11,20 |
| :---: | :---: | :---: | :---: |
| 83:24 89:13 | purple 58:21 | qualifications | 306:7 307:3 |
| 90:16,22 91:20 | 59:4 67:20 | q98:12,25 | questioning |
| 92:23 93:14 | 69:10,10 86:17 | 100:14 137:22 | 196:22 |
| 99:21 112:9 | 114:24 147:10 | qualified | questions 40:24 |
| 119:20 121:25 | 156:2,18 | 118:21 311:7 | 44:15,17 45:6 |
| 125:3,21 | 171:13,15 | quarter 47:12 | 46:14,16,18 |
| 130:14 139:1,6 | 258:3 | 47:18 48:12 | 48:2,3 53:6,8 |
| 139:19,24 | purpose 1:8 | 51:1,10 | 53:11 54:7,9 |
| 146:11 151:1 | 141:18 214:1,2 | 104:7 | 54:10 57:1 |
| 151:20,24 | 232:16 | 148:1,1 150:5 | 60:21 62:11,16 |
| 155:15 158:21 | purposes 29:4 | 171:11 174:25 | 62:17,19,21,24 |
| 161:11,19 | 154:7 167:22 | 181:24,24 | 64:17 66:2 |
| 166:13 169:15 | 173:2,10 175:4 | 191:10 | 72:8,14,17,19 |
| 174:11 176:24 | 180:13 | question 55:8 | 74:2,5 75:1 |
| 182:4 297:18 | pursuant 51:18 | 72:24 74:9,15 | 76:16 79:17,22 |
| publications | 191:15 | 75:7 83:14 | 79:24 80:3 |
| 139:4 | put 33:6 34:19 | 84:21 91:4 | 83:2,6,12 |
| publish 43:22 | 34:23 55:18 | 105:20 117:19 | 84:15,19,21 |
| 44:5 125:8 | 76:8 96:11 | 122:16 131:13 | 89:16,21 90:1 |
| published 43:6 | 108:21 151:7 | 141:7,10 | 90:2 100:7,20 |
| 43:24 52:21 | 155:25 156:1 | 144:18,22 | 105:8,15,21 |
| 62:10 70:20 | 157:24 163:1,3 | 145:3 156:16 | 106:12,15 |
| 79:10 83:1 | 207:8 213:17 | 156:17 158:15 | 112:19,21,24 |
| 89:14 105:5 | 229:23 237:10 | 188:6 194:24 | 116:10 122:3,4 |
| 112:10 130:15 | 249:3 250:11 | 195:1,3,20,22 | 122:8,13 123:3 |
| 139:8 151:20 | 250:12 257:4 | 205:8 266:10 | 123:10,13 |
| 151:23 169:15 | 265:4 266:15 | $\text { 266:21 } 268: 7$ | 126:2 130:16 |
| 176:25 182:5 | 274:14 275:2 | 269:16 270:18 | 130:20 131:2,7 |
| 192:20 297:6,8 | 275:15 276:5 | 274:7 278:22 | 140:25 141:5 |
| pull 209:14 | 291:5,8 303:7 | 280:17 281:13 | 142:25 144:16 |
| 246:13 284:2 | putting 115:2 | 288:3 298:16 | 145:19 147:5 |
| pulled 118:4 |  | 300:17 301:19 | 148:10 152:11 |
| 204:1 |  | 301:20,23 | 152:13,16,24 |
|  |  | 302:19 305:10 | 156:9,11,14 |

[questions - rate]

| $162: 20 ~ 163: 5$ | r | $77: 2581: 4$ | $145: 15,21,24$ |
| :---: | :---: | :---: | :--- |
| $170: 3,4,6,8$ | r $2: 44: 25: 86: 9$ | $86: 19103: 25$ | $146: 12,20,24$ |
| $177: 15,17,19$ | $7: 178: 2,109: 1$ | $111: 10118: 14$ | $147: 3,8,12,18$ |
| $182: 19,21,23$ | $21: 177: 22$ | $127: 22165: 2$ | $147: 24148: 17$ |
| $182: 25183: 23$ | $111: 2,2,2$ | $167: 21175: 1$ | $160: 12185: 23$ |
| $187: 10188: 20$ | $150: 2183: 9$ | $191: 11211: 2,5$ | $185: 24186: 5$ |
| $188: 24189: 1$ | $186: 12187: 5$ | $217: 19,21$ | $187: 16188: 1,8$ |
| $191: 2,4194: 16$ | $189: 4198: 7,7$ | $287: 2300: 10$ | $189: 6,11,13,18$ |
| $195: 14,16,19$ | $199: 7203: 11$ | ranges $290: 22$ | $190: 2,9,12$ |
| $196: 8,9,11$ | $203: 12206: 4$ | $290: 24291: 3$ | $205: 19,19,22$ |
| $204: 23,25$ | $206: 13,16,21$ | ranging $290: 19$ | $206: 1207: 11$ |
| $262: 4,11,16,17$ | $206: 22207: 20$ | rankin $9: 410: 4$ | $208: 10,11,15$ |
| $279: 13280: 3,5$ | $207: 21,21$ | $10: 622: 7,9,19$ | $209: 8,12,13$ |
| $280: 8294: 2,3$ | $209: 24210: 14$ | $23: 1524: 8,12$ | $221: 23261: 18$ |
| $294: 5,8,12,15$ | $210: 19218: 15$ | $24: 16,19,25$ | $262: 3283: 6,7$ |
| $294: 24295: 2$ | $218: 16,18$ | $25: 11,12,22,23$ | $283: 11285: 1,6$ |
| $296: 20298: 7$ | $301: 7308: 24$ | $26: 5,9,1027: 2$ | $285: 7294: 1,17$ |
| $298: 10,13$ | $308: 25$ | $28: 2030: 9,11$ | $294: 18295: 5$ |
| $306: 23307: 1$ | raccoon $191: 9$ | $30: 1231: 9,13$ | $295: 11298: 6$ |
| $309: 13$ | $193: 2,5,7$ | $33: 12,1334: 4$ | $307: 3,7308: 10$ |
| quick $22: 21$ | $195: 23$ | $34: 12,2135: 6$ | $308: 12,13$ |
| $44: 2265: 9$ | raise $65: 975: 8$ | $35: 10,13,21$ | $309: 4,7,22$ |
| $123: 4143: 15$ | $198: 9208: 3$ | $36: 8,8,16,16$ | $310: 3$ |
| $144: 10,14,18$ | rally $245: 21$ | $38: 11,1239: 7$ | rankin's |
| $213: 21266: 10$ | ralph $116: 1$ | $48: 392: 2,3$ | $104: 17$ |
| $268: 7278: 22$ | ran $196: 1$ | $93: 12103: 8,9$ | ranking $281: 7$ |
| $280: 8298: 16$ | $227: 5232: 3$ | $103: 13105: 16$ | rare $108: 12$ |
| quickly $107: 25$ | $301: 8302: 2$ | $107: 22117: 8,9$ | $201: 13$ |
| $123: 17192: 17$ | ranch $51: 4,14$ | $117: 13132: 12$ | rarely $183: 2$ |
| $204: 18210: 22$ | $103: 7117: 7$ | $132: 13133: 1$ | rate $229: 2,6$ |
| $216: 18260: 11$ | range $50: 20$ | $138: 2141: 11$ | $252: 13,16,22$ |
| quiet $122: 13$ | $51: 2,1158: 17$ | $141: 15142: 3$ | $253: 1,11254: 7$ |
| quite $41: 23$ | $58: 18,24,25$ | $142: 11143: 3,9$ | $254: 17269: 2$ |
| $96: 6307: 9$ | $59: 12,13,19,20$ | $143: 19144: 3,9$ | $270: 21,21,23$ |
|  | $67: 2475: 24$ | $144: 18145: 2$ | $272: 22273: 2$ |
|  |  |  |  |

Page 73
[rate - record]

| 278:7 296:16 | ready 21:23 | 76:1 155:2 | 179:24 184:6 |
| :---: | :---: | :---: | :---: |
| 298:22 302:20 | 38:23 39:22 | 160:23 165:21 | 200:6 205:12 |
| 303:14 309:15 | 54:9 262:10 | 173:1 176:6 | 262:2 298:5 |
| 309:16 | 264:21 | reasoning | recently 70:14 |
| rates 75:20 | real 22:21 | 74:22 | 201:13 239:8 |
| 76:1,2,11 | 29:13 32:4,9 | reasons 28:8 | recognized |
| 142:16 154:14 | 123:4 143:15 | 228:17 266:2 | 137:22 138:1 |
| 165:10,10 | 210:22 216:18 | 301:2 | record 52:24 |
| 168:7 171:22 | 262:17 302:6 | reassess 277:19 | 54:5 57:3 58:7 |
| 175:14 230:17 | 306:9 | recall 38:24 | 65:5 66:4,5 |
| 249:1,1 251:5 | realized 119:25 | 301:6,15 | 70:8 76:19 |
| 251:5,25 252:1 | really $28: 14$ | 304:15,17 | 79:15 80:4 |
| 255:21 271:2 | 55:14 73:25 | recap 73:8,12 | 81:14 83:4 |
| 300:3 302:14 | 91:2,3 92:1,25 | recapitulation | 84:25,25 87:16 |
| 303:19,21 | 95:7 100:23 | 53:14 135:23 | 89:18 92:9 |
| 304:1,9,13 | 102:18 106:17 | receipt 78:22 | 99:15,23 |
| rather 134:1 | 125:1,2 131:7 | receipts 121:20 | 100:10 102:15 |
| 159:25 162:7 | 141:16 146:5 | 181:10 | 102:16 105:9 |
| 224:9 259:20 | 190:11 231:17 | receive 108:11 | 109:17 112:12 |
| 264:15 265:17 | 289:13 | 136:19 139:2 | 115:16 116:12 |
| 294:20 304:17 | reason 30:18 | 192:19 196:1 | 126:16 128:18 |
| ratified 175:22 | 48:22 68:2 | 200:3 244:8 | 130:18 132:5 |
| ratio 258:9 | 75:16 81:24 | 295:24 | 134:11 136:6,7 |
| ray 99:11 $286: 8$ | 92:3 95:11 | received 25:24 | 148:12 149:10 |
| rcx 10:2 | 108:23 140:10 | 52:17 57:10 | 153:3 155:22 |
| rdx 10:2 | 145:10 150:18 | 62:6 66:8 | 157:17 158:8 |
| reach 27:25 | 155:8 159:22 | 76:23 80:8 | 161:15 162:3 |
| 96:7 277:6 | 193:12 212:18 | 85:3 95:24 | 163:12 166:10 |
| 282:12 | 218:9,10 | 102:20 109:21 | 167:1 169:11 |
| reached 30:6 | 228:22 265:21 | 111:19 112:7 | 169:25 170:12 |
| 39:2 | 265:22 267:7,9 | 116:16 120:2 | 174:6 175:19 |
| read 97:6 | 277:2 298:21 | 125:24 126:20 | 179:17 183:22 |
| 108:14 143:23 | 299:3,4 306:12 | 132:8 148:16 | 184:1 190:15 |
| 295:20 | reasonable | 153:7 157:20 | 198:5 205:6 |
|  | 30:23 42:13 | 163:20 170:16 | 208:17 209:3 |

Page 74
505.843.9241

Paul Baca Professional Court Reporters A Veritext Company www.veritext.com
[record - remain]

| $218: 5261: 20$ | $237: 24238: 15$ | referred $210: 4$ | regional $71: 19$ |
| :---: | :---: | :---: | :--- |
| $261: 24262: 9$ | $238: 17239: 16$ | $218: 24263: 3$ | 194:3 |
| $263: 24283: 13$ | $241: 5256: 8$ | referring | regular $146: 15$ |
| $298: 3311: 9$ | $259: 22286: 24$ | $212: 24224: 8$ | $147: 10,12$ |
| $312: 5$ | $287: 20290: 3$ | $262: 23263: 7$ | $202: 10$ |
| recorded $311: 6$ | redo $182: 10$ | $263: 15299: 19$ | regulations |
| recording | reduce $134: 15$ | $301: 21302: 9$ | $7: 22191: 7,21$ |
| $311: 8312: 4$ | $160: 13,13$ | $302: 11$ | $191: 24307: 16$ |
| records 43:24 | $192: 8259: 25$ | refers $146: 16$ | reinject $232: 11$ |
| $261: 16$ | $260: 1,1,15$ | $204: 10296: 5$ | related $11: 15$ |
| recover $74: 16$ | reduced $138: 23$ | refile $125: 20$ | $12: 433: 8$ |
| $247: 6,8258: 15$ | $311: 6$ | $158: 20$ | $51: 2561: 2$ |
| $275: 1$ | reducing | refiled $151: 7$ | $97: 13104: 13$ |
| recovered | $134: 17$ | reflect $145: 8$ | $111: 24113: 18$ |
| $258: 21273: 10$ | reduction | $155: 13224: 21$ | $171: 6311: 11$ |
| $274: 18275: 5$ | $138: 18$ | $243: 16$ | $312: 7$ |
| $275: 12276: 12$ | reeves $7: 23$ | reflected $105: 4$ | relates $249: 1$ |
| recovery $192: 8$ | $191: 7193: 4,9$ | reflecting | relative $238: 4$ |
| $194: 13247: 6$ | $204: 10$ | $140: 6296: 25$ | $267: 14296: 12$ |
| $249: 2,14,18$ | refer $173: 6$ | $297: 12,19$ | $308: 16311: 13$ |
| $251: 6,7257: 3$ | $212: 15,18,21$ | refresh $200: 4$ | $312: 10$ |
| $258: 14270: 13$ | $223: 19263: 2$ | $302: 24,24$ | relatively |
| $272: 6274: 8,13$ | $268: 12$ | regard $277: 7$ | $181: 23259: 13$ |
| $275: 16276: 14$ | reference $71: 13$ | regarding | $259: 14288: 11$ |
| $276: 15,20$ | $78: 5213: 21$ | $79: 1182: 3$ | release $185: 6$ |
| $277: 4,25282: 2$ | $262: 19,22$ | $157: 13225: 5$ | relevant $74: 10$ |
| red $110: 5$ | referenced | $228: 8229: 24$ | $119: 15,17$ |
| $122: 17211: 21$ | $183: 2268: 21$ | $230: 17235: 23$ | relief $30: 14,16$ |
| $216: 7,13$ | $269: 6$ | $236: 2251: 16$ | $151: 5160: 5$ |
| $217: 10,14$ | references | regardless | relying $139: 4$ |
| $218: 24219: 2$ | $230: 11$ | $238: 6277: 10$ | $139: 19$ |
| $222: 4,5,25$ | referencing | $278: 15,16$ | remain $24: 3$ |
| $227: 11,14$ | $108: 18263: 14$ | regards $33: 8$ | $206: 17210: 19$ |
| $230: 7234: 12$ | $299: 20$ | $225: 15270: 19$ | $210: 20$ |
| $234: 18235: 13$ |  | $280: 17$ |  |
|  |  |  |  |

[remainder - reservoirs]

| remainder | 149:6 | 151:5 160:5 | requiring |
| :---: | :---: | :---: | :---: |
| 251:3 | reporting | 180:24 186:4 | 300:9 307:13 |
| remaining | 246:2 250:12 | 191:20 195:5,6 | reschedule |
| 153:10 | 251:23 | 195:9,10 206:3 | 78:23 |
| remediation | reports 29:17 | 206:19 209:20 | rescind 2:15 |
| 7:9 96:6,14 | 173:24 174:1,1 | 209:23 210:8 | research 203:1 |
| 157:3 | 176:21 245:25 | 210:12 211:8 | 203:2 227:15 |
| remedied 46:12 | representative | 218:5,11 | reserve 146:7 |
| remedy 39:15 | 99:6 290:9 | 228:15 259:11 | reserves 4:18 |
| remember | representing | 286:14 289:18 | 14:2 96:21 |
| 43:14 73:4 | 23:131:25 | requests 27:6 | 97:1 100:1 |
| 179:6 301:9 | 97:1 238:6 | 78:24 134:3 | 102:19 192:8 |
| 302:5,7 | request 24:7 | 154:14 174:24 | reserving 50:8 |
| remote 8:20 | 30:22 34:15,24 | 178:14 295:17 | reservoir 20:6 |
| removed 38:19 | 41:25 42:2 | require 73:4 | 192:7,7 193:5 |
| 105:19,19 | 63:17 72:5 | 196:1 | 193:18,22 |
| 265:25 | 77:22 79:14 | required 55:18 | 194:14 202:19 |
| removes 104:21 | 150:11,19 | 56:19 78:22 | 202:20 207:4 |
| reopen 77:21 | 151:12 155:21 | 135:4 136:19 | 229:3 231:3 |
| 112:1 | 162:1 163:9 | 138:8 139:9,25 | 233:7 256:14 |
| rephrase | 166:19 183:3 | 202:2 233:8 | 258:5 275:4 |
| 272:24,24 | 228:13,17 | 244:8,21 271:8 | 280:14 281:18 |
| replaced | 259:9,16 | 271:14 | 286:25 287:11 |
| 143:20 | 308:15 | requirement | 287:21 288:11 |
| replacement | requested | 65:22 73:6,9 | 291:12 294:20 |
| 140:15 143:3 | 78:15 151:5 | 189:14 244:14 | 295:14 296:21 |
| 143:18 145:22 | 160:9 162:10 | 271:6 | 298:7,14,20 |
| 146:5,9 | 180:17 193:20 | requirements | 299:8,13 300:2 |
| replacing | 211:10 241:5 | 136:8 170:14 | 300:16 303:1,2 |
| 146:18,19 | 271:2 | 200:23 226:7 | 303:11,16,23 |
| report 79:5 | requesting | 229:21 232:6 | 305:16 306:5 |
| 91:6,8 259:5 | 30:14 32:11 | 248:19 251:23 | 309:12 |
| reported 8:22 | 46:4 51:17,19 | 257:12 261:2 | reservoirs |
| reporter 21:9 | 60:8,11 75:16 | requires 150:9 | 300:20 |
| 77:7,8 116:21 | 88:14 133:2 |  |  |

[resistivity - right]

| resistivity | result $27: 5,25$ | returns $62: 6$ | revisions |
| :---: | :---: | :---: | :---: |
| 99:11 $286: 8$ | $138: 23194: 13$ | revenue $244: 19$ | $303: 23$ |
| resolution | $235: 24260: 20$ | reverted | revisit $303: 16$ |
| $27: 2230: 6$ | $296: 14,17$ | $254: 18$ | revoke $2: 2$ |
| resolve $23: 20$ | $304: 16$ | review $40: 21$ | $31: 10201: 1$ |
| $24: 4$ | resulting | $50: 958: 8$ | rid $102: 4$ |
| resolved $27: 4$ | $134: 16$ | $214: 15,17$ | ridge $67: 2,4,7,9$ |
| $107: 24$ | results $150: 21$ | $215: 3222: 12$ | $72: 18$ |
| resolving $23: 25$ | $260: 18300: 13$ | $227: 10235: 22$ | right $22: 3,23$ |
| resources $1: 2$ | $303: 10$ | $236: 19,20,22$ | $24: 17,2025: 7$ |
| $1: 212: 621: 5$ | resume $61: 15$ | $237: 1,9240: 13$ | $28: 1829: 2$ |
| $22: 13,2425: 16$ | $61: 1768: 19$ | $240: 24241: 23$ | $31: 2,6,22$ |
| $25: 1933: 11,15$ | $70: 2271: 2$ | $241: 24242: 17$ | $32: 17,2134: 10$ |
| $67: 2,472: 18$ | $72: 3283: 21$ | $243: 2246: 10$ | $35: 5,15,22$ |
| $165: 18172: 13$ | retain $190: 4$ | $246: 12271: 18$ | $36: 6,2437: 17$ |
| respect $173: 5$ | retained $11: 10$ | $272: 17277: 17$ | $38: 539: 8,9,25$ |
| $174: 13298: 7$ | $11: 2012: 8,16$ | $277: 18284: 3$ | $46: 20,2347: 4$ |
| respectfully | $12: 2213: 11,23$ | $285: 22293: 11$ | $47: 2448: 5$ |
| $78: 24$ | $14: 9,17,23$ | reviewed | $49: 2,2153: 12$ |
| respective $30: 1$ | $15: 9,2116: 13$ | $243: 19261: 3$ | $54: 1255: 16$ |
| $225: 7251: 4$ | $16: 2217: 9,19$ | $293: 5,8,13$ | $56: 2558: 8$ |
| respectively | $18: 9,1919: 9$ | reviewing | $63: 165: 966: 1$ |
| $55: 197: 20$ | $19: 1620: 10$ | $251: 15277: 16$ | $66: 1274: 4$ |
| respond $30: 9$ | retaining $190: 1$ | reviews $134: 2$ | $75: 5,6,676: 15$ |
| responding | retender $209: 8$ | $138: 7245: 12$ | $80: 985: 12,25$ |
| $124: 2309: 12$ | retroactive | revise $145: 7$ | $90: 797: 8$ |
| response | $191: 25$ | $163: 2169: 17$ | $101: 17103: 2$ |
| $121: 14$ | return $52: 17$ | $200: 10$ | $106: 10,17$ |
| rest $77: 4$ | $112: 7256: 15$ | revised $20: 4$ | $107: 13109: 7$ |
| $277: 16288: 18$ | $257: 10258: 5$ | $48: 10,11$ | $109: 14,15$ |
| restate $301: 23$ | $258: 18$ | $102: 17106: 21$ | $110: 4,14113: 1$ |
| $305: 20$ | returned $45: 1$ | $109: 18161: 21$ | $114: 1,8,18$ |
| resubmit | $79: 711: 19$ | $162: 4163: 17$ | $115: 6116: 10$ |
| $263: 20,23$ | $139: 3$ | $166: 15,16$ | $116: 20,22,23$ |
| $279: 19$ | $179: 20213: 10$ | $17: 17123: 14$ |  |

[right - sand]

| 123:22 124:1,5 | 245:23 246:5 | 207:17,20 | rv 81:19 |
| :---: | :---: | :---: | :---: |
| 124:19 126:8,9 | 247:9 249:20 | 208:5 283:8,12 | ryan 9:12 |
| 127:9 131:7,19 | 251:13 252:14 | 283:14,20 | 36:12,12 37:2 |
| 132:2,20,24 | 252:21 255:12 | 285:2,8 288:22 | 37:11,16,25 |
| 143:24 146:23 | 262:24 285:16 | 292:14 293:8 | 38:3 132:17,18 |
| 146:23 147:4 | 286:10 289:15 | 293:21 294:2 | 132:20,22 |
| 148:10 149:5,7 | 290:2 294:17 | route 28:11 | 140:25 141:5 |
| 149:9 153:11 | 295:4 302:3 | 178:4 | S |
| 153:16,25 | 308:25 309:24 | row 230:9,10 | S 9:1 11:1 21:1 |
| 157:15 158:2 | rights 50:8 | 251:13 | 198:6 199:7 |
| 158:13,14,19 | 66:25 129:20 | rows 230:9 | 207:25 |
| 159:7 163:11 | 137:4 158:11 | 269:13 | sa 118:10 |
| 163:25 170:7 | 192:5 243:5 | royalty $69: 18$ | sage 58:21 59:4 |
| 177:21 178:2 | 260:20 293:23 | 79:7 82:11,11 | 67:20 69:10,10 |
| 179:5,15 | rio 7:12 165:4 | 98:16 99:15 | 86:17 147:10 |
| 180:16 184:9 | 167:24 | 100:24 101:14 | 156:2,18 |
| 185:14,19,20 | rip 51:20 | 308:3 | 171:13,15 |
| 189:20,25 | risk 74:12,17 | rule 54:17,20 | sales 219:21 |
| 190:1,3,9,9,13 | river 110:5 | 178:22 191:16 | salvidrez 9:3 |
| 198:9 199:10 | riverbend 78:2 | 195:11 200:2 | 24:15 |
| 199:25 200:8 | rkc 172:14 | 202:3,6 307:15 | sample 42:11 |
| 202:4,24 | road 37:6,9 | 307:25 | 69:25 74:10,12 |
| 204:11,22 | robb 18:5 | rules 7:22 | 82:13,23 88:21 |
| 205:16 207:9 | 165:8 168:5 | 78:13 136:20 | 88:22 89:11 |
| 208:3 211:15 | robert 187:8 | 191:6,21,24 | 105:1 112:3 |
| 212:6 213:23 | rock 127:14 | 195:25 199:2 | 113:2,3,5,7 |
| 215:7,20 | 198:19,23 | run 43:10 | 121:20 129:21 |
| 216:25 218:2,7 | rocky 191:9 | 93:18 95:20 | 130:12 136:10 |
| 218:25 219:25 | 193:2,5,7 | 119:1,20 | 168:17 181:8 |
| 221:15 230:19 | 195:22 | 121:25 168:9 | 234:2,4,7,14,15 |
| 231:7 232:19 | rough 39:12 | 281:1 | 234:18 |
| 233:11,19 | roughly 256:9 | runner 67:2,4,7 | san 7:17 103:22 |
| 234:1 235:5,7 | 258:21 | 67:9 72:18 | 117:2 204:5 |
| 235:14 236:5,7 | rountree 10:5 | running 83:15 | sand 288:8 |
| 237:13 245:19 | 207:12,16,17 | 226:14 | $290: 2,4$ |

Page 78
[sands - section]

| sands 262:24 | 145:23 271:19 | 295:13 | 280:11 281:12 |
| :---: | :---: | :---: | :---: |
| 287:12 | 273:11 277:18 | screens 200:15 | 281:15 287:18 |
| sandstones | 293:4,16 307:8 | script $216: 3$ | 288:8 289:8,21 |
| 287:23 | says 46:9 54:17 | scroll 101:17 | 290:2,4,22,23 |
| santa 1:48:21 | 54:24 74:13 | 114:8 189:9 | 292:11 |
| 22:10 23:5 | 100:24 101:22 | 219:4 237:7 | secondary 93:9 |
| 25:14 26:10 | 101:23 107:3 | 243:20 248:15 | section 41:9,10 |
| 33:1,13 36:9 | 108:2 178:20 | 296:10 | 41:11 42:16,23 |
| 38:12 77:13 | 197:17 | scrolling | 47:12 50:19 |
| 80:16 85:17 | scaling 272:11 | 113:15 114:6 | 51:1,2,10,11 |
| 103:9 117:9 | scenario | se 225:20 | 52:11 55:24 |
| 127:2 | 300:19 305:23 | seals 14:15 | 58:17,24 59:12 |
| satisfaction | schedule 82:8 | 104:23 | 59:19 60:7 |
| 27:4 | 129:18 | search 203:21 | 62:1,1 71:14 |
| saturday | scheduled | searching | 78:5 82:18 |
| 154:10 | 280:19 | 204:7 | 87:20 89:2,3 |
| savage 9:7 23:4 | schematic | seat 262:8 | 97:16,17,19,19 |
| 23:5 32:25 | 71:12 224:1 | second 34:16 | 103:24 104:3,4 |
| 33:1,5,7,21 | 225:2 | 53:18 93:23 | 104:7,8 118:13 |
| 34:13 35:19 | schematics | 99:4,10,10 | 120:24 127:19 |
| 77:11,13,19 | 242:4 | 110:12 125:5 | 128:2,9 130:7 |
| 80:9 85:22,23 | schill 23:6 33:2 | 159:21 160:1 | 137:7,8 147:22 |
| 86:2,7 90:2 | 77:14 164:8 | 164:24 165:3 | 147:23 150:4,5 |
| 164:7,7,14 | 184:15 | 167:25 168:24 | 154:6,6 159:18 |
| 170:4 184:13 | school 284:8 | 171:8 175:2,13 | 159:18 164:21 |
| 184:15 185:2 | schwing 295:15 | 176:17 195:20 | 164:22,25 |
| 185:17 | 303:11 | 201:18 210:2 | 165:1 167:17 |
| save 163:2 | science 61:17 | 211:4 212:13 | 167:18,20,21 |
| savings 138:11 | 71:3 284:6,8 | 214:23 215:25 | 168:22 171:11 |
| 138:19,21 | scope 277:11 | 216:5 217:4 | 171:12 173:17 |
| saw 267:25 | scouts 108:5 | 222:24 225:4 | 174:25 175:1 |
| saying 55:5 | scraped 93:19 | 228:22 234:8 | 176:14 180:11 |
| 58:7 90:11 | screen 83:18 | 234:17 254:11 | 180:12 181:21 |
| 91:19 113:11 | 93:24 207:13 | 255:20 256:1 | 181:24 191:11 |
| 124:2 145:21 | 209:15 213:3 | 262:24 263:8 | 194:7 199:22 |

Page 79
[section - sending]

| 211:3,3,5,6 | 140:22 142:8 | 300:21 301:12 | 167:16 171:10 |
| :---: | :---: | :---: | :---: |
| 230:15,20,20 | 143:2 144:3,7 | 302:14 305:4 | 180:11 200:25 |
| 238:1,3 239:10 | 155:6,11 161:7 | seek 50:9 58:8 | 206:21 |
| 288:21 289:3,7 | 165:14 169:2 | 63:19 64:1 | seem 108:4 |
| 289:10,16,20 | 173:12 176:2 | 164:24 167:19 | 144:11 |
| sections 45:8 | 195:21 205:16 | 175:3 | seems 56:12 |
| 50:20 55:24 | 217:6 227:19 | seeking 27:19 | 201:13 266:12 |
| 58:16,23 59:11 | 229:2 230:9 | 30:15 59:24 | 302:1 304:16 |
| 59:18,25 67:24 | 231:10 233:22 | 69:13,16 78:18 | seen 28:12,23 |
| 77:25 81:3 | 233:23,23 | 82:9,12 86:15 | 75:21,24 106:1 |
| 86:24 87:5 | 236:1 237:18 | 86:16 88:4,21 | 143:4 144:19 |
| 99:9 104:24 | 237:19 241:3 | 101:10 107:8 | 183:11 247:5 |
| 111:9 127:16 | 247:20,22 | 108:10 110:25 | 273:17 |
| 128:3,10 | 248:7 250:3,25 | 111:17 112:1 | selected 266:3 |
| 137:11 148:1 | 252:6,15,22 | 113:20 115:25 | self 11:18 13:7 |
| 166:5,6 196:25 | 253:1,10,24,25 | 127:10 129:20 | 13:15,17,19 |
| 215:19 237:24 | 254:6,6,11,15 | 133:7,12,14 | 15:3,5,7,17 |
| 289:6,25 | 255:15 256:7,8 | 134:12 135:19 | 16:5,7 52:13 |
| see 21:15 $28: 16$ | 257:19 258:17 | 136:1,5,16 | 82:23 87:12,12 |
| 39:19 41:21 | 258:18 261:3 | 139:21 140:2,7 | 87:17 88:25 |
| 42:21 46:21 | 269:10 270:1,4 | 154:22 160:1 | 89:11 107:2 |
| 47:11 61:16 | 272:10 277:5 | 165:9 168:5 | 118:24 120:10 |
| 73:5,11 75:3 | 277:24 282:1,6 | 171:14,17 | 121:17 130:12 |
| 81:17,20,22 | 295:21 296:10 | 196:23 218:17 | 133:23 134:8 |
| 83:17 84:2 | 297:9 301:5 | 219:9 | 134:23 136:22 |
| 87:19,23 88:10 | 302:17 303:7 | seeks 41:8 | 136:25 137:20 |
| 91:3,5 92:16 | 305:1 306:12 | 50:17 58:14 | 138:3 142:24 |
| 93:2,13 94:20 | seeing 76:2,12 | 67:17 77:20 | 187:7 207:5 |
| 94:25 95:5 | 92:4,8 219:22 | 80:22 81:5 | 294:20 296:9 |
| 98:7 108:9 | 230:25 253:4 | 86:21 87:2 | sell 254:3 |
| 118:2 119:9 | 253:14 254:19 | 103:21 107:6 | send 105:3 |
| 122:21 125:13 | 255:23,25 | 118:8 127:24 | 113:22 143:10 |
| 128:21 129:13 | 256:19,19 | 128:7 150:2 | 191:4 |
| 138:11,17 | 290:12 295:9 | 154:5 159:15 | sending 52:14 |
| 139:8 140:21 | 299:4 300:14 | 164:20 165:9 |  |

[sense - shows]

| sense 64:16 | 290:15 291:4 | shale 212:6 | show 43:24 |
| :---: | :---: | :---: | :---: |
| 306:14 | serve 242:20 | 286:21 | 71:16 92:5 |
| sent 34:6 44:22 | 291:15 | shales 287:7,12 | 95:11 135:1,7 |
| 44:23 52:14,16 | served 133:18 | 287:15 288:12 | 169:17 177:4 |
| 62:3,5 70:1,2,5 | servers 93:18 | 288:16 | 182:11 214:4 |
| 70:6,11 81:22 | serves 192:4 | shallowest | 240:21 289:13 |
| 87:25 88:8 | service 29:17 | 217:2,20,22 | 303:10 306:10 |
| 105:1 112:6 | 235:2 | shalos 215:23 | showing 42:16 |
| 113:2,8,9,12 | servicing | shane 14:14 | 52:21 62:9 |
| 119:24 129:25 | 113:16 115:20 | shanor 31:20 | 70:18,20 78:6 |
| 136:11 140:18 | set 23:10 $25: 8$ | 50:15 57:17 | 99:14 112:9 |
| 176:23 180:18 | 26:25 30:2 | 67:4 103:5 | 137:6,12,13 |
| 200:6 | 31:3 32:18 | 110:3 | 155:5 165:12 |
| sentence | 34:15 35:1,18 | share 29:7 | 165:16 168:15 |
| 109:19 | 44:2 57:5 | 205:23 259:1 | 172:3 176:14 |
| separate 63:19 | 151:9 179:10 | 295:13 | 176:18 181:3,4 |
| 69:14,15 70:11 | 196:6 219:8 | sharon 9:8 | 181:9,16,22 |
| 134:3 142:9,18 | 225:7,22 228:2 | 25:18 | 215:12 222:18 |
| 166:5 219:18 | 233:23 282:25 | sheet 225:4 | 241:21 243:16 |
| 270:7 | 285:8 302:25 | sheets 176:2 | 251:24 257:3 |
| separated | setback 27:11 | 223:24 224:16 | 270:23 285:23 |
| 178:16 220:25 | setbacks | 224:21 225:15 | 286:5,7,11 |
| separately 97:5 | 171:16,18 | shelley 65:7,11 | 289:1,8,9,20,24 |
| separating | sets 62:3 270:7 | shift 184:10 | 298:21 300:18 |
| 59:10 104:7 | setting 112:6 | shifting 249:6 | shown 175:6 |
| sepc $52: 10$ | 225:18,23 | 265:22 304:3 | 193:15 221:16 |
| 61:25 82:17 | setup 222:13 | short 41:5 | 270:20 271:3 |
| 89:1 104:24 | 227:4 228:10 | 216:3 227:25 | 289:4 |
| 130:6 290:6 | seven 25:9 | 237:9 247:7 | shows 60:14 |
| sequence | several 172:13 | 248:10 302:21 | 79:3,5 89:15 |
| 212:22 | 269:13 | 303:15 | 90:18 92:12 |
| sequencing | severance | shorter 45:13 | 101:3 107:5 |
| 281:8 | 139:16,25 | 303:9 | 114:4 136:17 |
| series 110:5 | shaheen 9:8 | shortly 65:25 | 138:21 158:17 |
| 288:23 290:15 | 25:17,18 26:6 |  | 160:25 165:25 |

[shows - someone's]

| $172: 6,15173: 3$ | sides $289: 25$ | simple $300: 7$ | $290: 6299: 22$ |
| :---: | :--- | :--- | :--- |
| $173: 8,21$ | sign $49: 21$ | $306: 9$ | $300: 2$ |
| $175: 14,18,24$ | signature | simplified | slides $246: 11$ |
| $181: 7192: 18$ | $296: 11311: 20$ | $42: 25215: 17$ | $250: 9251: 15$ |
| $193: 6,19194: 9$ | $312: 17$ | simply $45: 15$ | $285: 9288: 23$ |
| $200: 5223: 10$ | signed $101: 8$ | $125: 12174: 7$ | $289: 5291: 4$ |
| $227: 11229: 19$ | $145: 5293: 3$ | single $270: 20$ | slight $285: 15$ |
| 237:5 246:14 | significance | $275: 22$ | $286: 2$ |
| $288: 23296: 13$ | $122: 22$ | sir $32: 737: 16$ | slightly $105: 17$ |
| 309:16 | significant | $65: 17,23102: 6$ | $249: 10296: 16$ |
| shut $232: 18$ | $291: 20302: 16$ | $124: 12125: 6$ | slips $155: 20$ |
| $247: 17253: 18$ | significantly | $125: 15161: 3$ | slope $274: 18,21$ |
| $260: 2268: 12$ | $306: 1$ | $199: 6$ | slow $83: 15$ |
| $268: 21,22$ | silt $288: 12$ | site $29: 22$ | $93: 1995: 5$ |
| $269: 8$ | siltstones | $192: 10196: 3$ | $125: 2$ |
| shutdown | $287: 22$ | sitting $43: 14$ | slowly $21: 10$ |
| $280: 24$ | silverback $5: 11$ | situation $94: 24$ | small $172: 10$ |
| shutdowns | $15: 2116: 23$ | $125: 12274: 4$ | $303: 14,21$ |
| $228: 21282: 22$ | $117: 4,16118: 7$ | six $22: 324: 21$ | $304: 7$ |
| shutting $281: 3$ | $118: 24119: 19$ | $60: 4133: 12$ | smaller $303: 20$ |
| $281: 9$ | $122: 9126: 18$ | $172: 22189: 25$ | smithson |
| sic $52: 1290: 8$ | silverback's | $249: 9$ | $115: 20$ |
| 91:9 99:20 | $118: 18121: 2$ | sixty $131: 17$ | snail $59: 2,9,22$ |
| side $23: 22$ | $121: 12$ | skills $311: 10$ | $67: 15$ |
| $83: 1593: 18$ | silverbacks | $312: 6$ | snee $71: 21$ |
| $215: 20216: 25$ | $120: 6$ | skim $123: 4$ | software $125: 2$ |
| $219: 25221: 14$ | similar $67: 15$ | skinny $238: 5$ | sold $221: 1$ |
| $221: 15225: 3$ | $129: 9153: 23$ | skip $236: 24$ | solicitous |
| $231: 7238: 1$ | $175: 13216: 19$ | slew $38: 24$ | $286: 25$ |
| $246: 22247: 9$ | $216: 24221: 20$ | slide $216: 21$ | somebody $38: 2$ |
| $249: 20252: 14$ | $230: 5237: 11$ | $219: 15222: 12$ | $63: 5113: 2$ |
| $264: 11266: 1$ | $238: 12,12$ | $251: 18256: 19$ | $154: 9157: 1$ |
| $268: 22289: 15$ | $240: 1249: 24$ | $263: 22285: 14$ | $171: 23$ |
| $289: 25$ | $256: 1292: 6$ | $288: 25289: 8$ | someone's |
|  |  | $289: 12,24$ | $87: 24$ |

[somewhat - specific]

| somewhat | 299:15 | 128:2,9 150:5 | 142:14,19,22 |
| :---: | :---: | :---: | :---: |
| 265:15 | source 232:22 | 191:10 290:13 | 144:2 147:6,17 |
| soon 34:5 | 232:24 234:25 | southwest | 156:22 159:16 |
| 188:14 260:12 | 234:25 244:20 | 174:25 | 163:16 175:3 |
| sooner 259:20 | 266:11,23 | spacing 2:22 | 179:5,22 |
| sorry $21: 8$ | 267:8,19 293:7 | 3:13 4:10,20 | 180:17,22 |
| 22:20 26:17 | 308:4,6 | 5:19 6:4,18 7:4 | 183:16 191:15 |
| 29:3 30:3 54:8 | sourced 262:22 | 46:5 50:25 | 193:8,14 |
| 63:6 65:4,6 | sources 292:23 | 51:9,18 52:5,5 | 243:21 301:16 |
| 73:3 85:21 | south 41:10,11 | 54:14,15 56:4 | speak 21:10 |
| 91:22,25 95:5 | 45:7,22 50:20 | 57:7 58:22 | 24:13 171:23 |
| 96:3 98:23 | 50:20 51:2,10 | 59:5,8,18 60:9 | 220:10 221:18 |
| 107:2 111:3 | 51:11 58:17,18 | 60:12 61:10 | 241:18 258:11 |
| 123:3,15 | 58:24,25 59:12 | 63:2,7,13,18 | 280:16 281:2 |
| 126:12 131:23 | 59:13,19,20 | 64:8,9,10 66:6 | speaker 49:5 |
| 131:23 143:9 | 67:24 77:25 | 67:18,23 69:9 | 310:6 |
| 149:3 163:18 | 81:3,3,4 86:19 | 81:2,5,17 82:1 | speaking |
| 200:5,15 | 87:4 89:5 | 86:23,24 87:4 | 225:10 251:9,9 |
| 234:16 238:16 | 97:16,18 | 87:6,22 88:5 | 271:9 273:16 |
| 255:24 256:3 | 103:25 111:8,8 | 98:19,20 | speaks 230:16 |
| 273:23 281:12 | 111:9,10 | 103:23 104:1 | special 7:21 |
| 289:9 294:7 | 118:13 127:15 | 104:10 111:7 | 191:6,20,22,24 |
| 301:22 305:19 | 127:22 150:5 | 118:9,12 119:6 | 199:1 200:10 |
| 307:7 | 154:5,6,6 | 119:8 120:14 | 201:1 262:11 |
| sort 73:11 76:4 | 159:18 164:21 | 120:16,19,22 | specific 30:13 |
| 123:16 124:16 | 164:22,22,25 | 121:11 124:7 | 41:6 178:17 |
| 125:25 146:2 | 164:25 165:1,1 | 128:1,4,8,11,21 | 195:16 200:11 |
| 196:21 215:1 | 167:17,18,18 | 129:2 131:10 | 200:23 248:17 |
| 224:10 304:18 | 167:19,20,20 | 133:4,8,9 | 250:19 251:11 |
| 307:4 | 167:20 171:12 | 134:3,5,12,19 | 251:20 257:2,2 |
| sounded 32:3 | 180:11,12,12 | 137:13,15 | 270:14 271:11 |
| sounds 25:7 | 191:11 211:2,5 | 138:5,9,10,13 | 275:19 277:11 |
| 32:15 56:22 | 238:3 | 138:24 141:20 | 286:12,15 |
| 163:4 189:21 | southeast 47:21 | 141:23,23,24 | 299:12 |
| 211:14 278:18 | 50:19 51:10 | 141:25 142:5,8 |  |

[specifically - start]

| specifically | 99:4,11 111:6 | springs $145: 13$ | $147: 6,16148: 8$ |
| :---: | :--- | :--- | :---: |
| $220: 6251: 19$ | $127: 12,15,18$ | spud $241: 14$ | $156: 22159: 16$ |
| $252: 1257: 16$ | $133: 6,14$ | stage $56: 8,11$ | $160: 25162: 10$ |
| $268: 17301: 1$ | $135: 21137: 10$ | stamp $212: 19$ | $163: 15175: 3$ |
| specifics 216:1 | $139: 12,18$ | $212: 25$ | $176: 20177: 22$ |
| $219: 13248: 24$ | $142: 15150: 7$ | stamped $92: 5$ | $177: 25178: 4$ |
| specifies 200:3 | $159: 21,22,23$ | $119: 2213: 18$ | $178: 20179: 5$ |
| speculate $305: 6$ | $160: 2164: 20$ | stand $83: 6$ | $179: 22180: 17$ |
| spell 198:4 | $165: 3,4166: 2$ | $89: 21122: 7$ | $180: 22183: 12$ |
| $199: 5207: 16$ | $166: 7167: 16$ | $130: 20$ | $183: 16191: 15$ |
| $207: 19$ | $167: 25168: 1$ | standard $2: 10$ | $191: 23193: 14$ |
| spelled $207: 25$ | $168: 23,24,24$ | $2: 183: 126: 3$ | $247: 3248: 9,13$ |
| spend $28: 15$ | $171: 9175: 2$ | $6: 177: 327: 5,7$ | $249: 12286: 7$ |
| $242: 15,16$ | $176: 10,18$ | $28: 129: 19$ | $289: 12$ |
| sperling 26:17 | $180: 14181: 19$ | $30: 1531: 23,25$ | standards |
| $57: 2266: 15$ | $206: 9210: 7$ | $32: 1450: 25$ | $148: 8$ |
| spoke $75: 13$ | $211: 19,21,22$ | $51: 9,17,19$ | standing $78: 13$ |
| $299: 15$ | $212: 9,13,13,14$ | $52: 4,554: 13$ | standup $71: 25$ |
| spreadsheet | $214: 21,23,24$ | $56: 457: 7$ | $161: 8173: 19$ |
| $47: 548: 10$ | $215: 22,24,25$ | $58: 2259: 8,17$ | $176: 11$ |
| $151: 15152: 4$ | $216: 5217: 2,4$ | $60: 9,1261: 10$ | star $221: 3$ |
| $152: 22153: 5$ | $217: 4,5234: 14$ | $63: 2,5,7,8,13$ | $250: 8251: 10$ |
| $155: 13,18$ | $234: 17235: 9$ | $63: 1864: 8,8,9$ | start $21: 19$ |
| $156: 1157: 18$ | $235: 13,25$ | $64: 13,1966: 6$ | $22: 523: 13$ |
| $163: 14166: 18$ | $239: 21240: 9$ | $67: 17,19,22$ | $33: 1853: 6$ |
| $169: 21174: 15$ | $243: 22262: 24$ | $81: 186: 22$ | $62: 16124: 6$ |
| $177: 3182: 9$ | $263: 2,4,7,8,12$ | $87: 3103: 23$ | $144: 21167: 11$ |
| $184: 3$ | $285: 11287: 9$ | $104: 9111: 7$ | $167: 13184: 11$ |
| spreadsheets | $287: 11,18$ | $118: 9127: 25$ | $191: 2194: 22$ |
| $179: 20$ | $289: 10,21,21$ | $128: 7133: 3,9$ | $205: 8207: 15$ |
| spring $42: 21$ | $290: 20,22,23$ | $134: 3,12,19$ | $229: 2248: 18$ |
| $50: 2451: 8$ | $290: 24291: 1,2$ | $135: 3,8136: 19$ | $250: 17,19$ |
| $58: 1559: 16$ | $291: 20,21$ | $137: 6138: 5,9$ | $251: 7252: 6$ |
| $60: 4,1180: 23$ | $292: 8,10,11,12$ | $138: 13,23$ | $253: 19,21$ |
| $80: 2497: 15,25$ | $142: 8144: 2$ | $254: 25257: 17$ |  |

Page 84
[start - storage]

| 257:24 258:14 | 161:24 165:20 | statewide 78:13 | 222:2 226:16 |
| :---: | :---: | :---: | :---: |
| 260:11 262:13 | 172:25 175:4 | stating 165:9 | 227:21,24 |
| 262:16 268:23 | 176:6 180:21 | station 220:22 | 228:6,8,19,24 |
| 281:2 282:13 | 210:18 225:24 | 220:24 222:5 | 228:25 229:7,8 |
| 285:13 301:11 | 230:1 250:13 | stations 228:20 | 230:18 234:11 |
| started 117:18 | 271:1 | status 21:19 | 234:13,19,22 |
| 127:10 196:21 | statement | 23:10 24:18,22 | 236:14 237:21 |
| 227:23 284:10 | 11:18 13:7,15 | 25:8 30:2 31:4 | 237:22 238:16 |
| starting 203:8 | 13:17,19 15:3 | 31:15 37:9 | 238:17,18 |
| 215:10 217:6 | 15:5,7,17 16:5 | 99:18 140:18 | 239:9,15,16 |
| 233:13 242:7 | 16:7 44:18 | 189:14 227:9 | 240:5,5 244:25 |
| 242:13 244:9 | 52:13 82:23 | 297:14,17 | 245:22 246:2 |
| 246:9,18,21 | 87:12,17 88:25 | stay 122:4 | 246:25 247:2,3 |
| 257:16 258:15 | 89:11 107:3 | steady 198:19 | 247:5,7,13,15 |
| 268:19 307:19 | 108:21 115:12 | 198:23 | 247:17,17,20 |
| starts 258:12 | 118:24 120:10 | step 64:6 | 247:24 248:6 |
| 258:19 288:20 | 120:12 121:17 | stephen 10:3 | 248:12,14,17 |
| 288:21 | 123:19 124:12 | 207:12,24 | 249:2,4,7,8,9 |
| state 1:12:5 | 130:12 131:13 | 208:5,12,18 | 249:15,17 |
| 54:25 55:1,9,9 | 133:24 134:8 | steps 30:7 | 250:1,3,4,11,18 |
| 55:24,25 56:1 | 134:23 136:22 | steward 5:1 | 250:19,21 |
| 57:6 60:18 | 136:25 137:20 | 14:12 103:3,5 | 251:1,4,6,8,11 |
| 64:22,22 65:3 | 138:3 148:22 | 103:19,21 | 251:20,20 |
| 111:12,12 | 154:12 158:16 | 105:11 107:6 | 252:2,9,11,23 |
| 128:5,12,25 | 169:8 187:7 | 109:20 | 252:25 253:3 |
| 129:3,8 141:17 | 195:21 207:5 | stewart 14:6 | 253:24 254:2 |
| 141:23,23 | 219:15 277:10 | 98:24,24 99:5 | 255:1,18,22,22 |
| 142:17 144:5,5 | 291:10 292:1,6 | 100:10 | 255:23 256:6,9 |
| 179:6,7 208:16 | 293:1,3 294:20 | stops 274:20 | 256:9,11,15,17 |
| 244:4 264:16 | 295:2 296:9 | storage 210:4 | 256:21 257:2,7 |
| 283:13 284:7 | 305:16 309:11 | 214:6,13 216:3 | 257:10,17,22 |
| 292:1 311:23 | statements | 216:5 217:7,9 | 257:23,25 |
| stated 28:21 | 87:12 291:5 | 217:11 219:17 | 258:5,10,16,18 |
| 42:13 78:16 | states 99:5 | 220:8,14 | 258:22 259:2 |
| 155:1 160:22 | 101:4 | 221:11,22 | 260:11 261:9 |

Page 85
[storage - summer]

[summertime - tables]


## [tabulated - technical]

| tabulated | taken $52: 25$ | talks $202: 9$ | $73: 2,17,20$ |
| :--- | :---: | :---: | :--- |
| $241: 9$ | $57: 466: 4$ | $301: 16$ | $74: 1,8,21,25$ |
| tabulation | $76: 1979: 15$ | tank $63: 24$ | $77: 1279: 23$ |
| $240: 15,20$ | $80: 583: 4$ | $211: 21217: 14$ | $80: 183: 13,14$ |
| taco $215: 8,10$ | $84: 2389: 19$ | $218: 24219: 2$ | $84: 14,1890: 5$ |
| $215: 16216: 6$ | $99: 24102: 16$ | $220: 20,21$ | $90: 13,2491: 7$ |
| $216: 10,23$ | $105: 10109: 18$ | $222: 3,4,5$ | $91: 13,17,22$ |
| $218: 23219: 23$ | $112: 13116: 13$ | $235: 13259: 22$ | $92: 10,1993: 1$ |
| $220: 3,6,12,15$ | $121: 12126: 16$ | $286: 24287: 20$ | $93: 8,16,17$ |
| $221: 13,17$ | $130: 19132: 5$ | $290: 3$ | $94: 1,12,14,18$ |
| $222: 14,22$ | $141: 1148: 12$ | taper $258: 19$ | $94: 2295: 4$ |
| $223: 11238: 12$ | $153: 3190: 16$ | target $71: 16$ | $100: 6,9,15,19$ |
| $238: 16,17$ | $205: 5,6231: 15$ | $120: 21137: 1$ | $105: 25106: 6$ |
| $240: 2,3243: 22$ | $303: 18308: 21$ | $137: 12194: 8$ | $106: 11,14$ |
| $246: 19247: 1$ | $310: 2311: 3,12$ | $212: 11217: 2$ | $112: 20,23$ |
| $247: 13248: 7$ | $312: 9$ | $225: 11239: 21$ | $117: 1,1122: 15$ |
| $249: 3,10,24$ | talk $30: 745: 21$ | $267: 12291: 17$ | $122: 23123: 2,9$ |
| $268: 17287: 21$ | $219: 11,12$ | targeted $99: 12$ | $123: 12,18$ |
| $290: 1298: 23$ | $220: 2228: 11$ | $121: 6,8$ | $126: 4,6131: 1$ |
| $304: 2$ | $230: 15234: 3$ | targeting $71: 18$ | $131: 4141: 9$ |
| take $28: 11$ | $236: 18240: 22$ | $121: 2137: 14$ | $142: 2,7,23$ |
| $56: 17102: 11$ | $243: 7246: 20$ | $212: 12214: 20$ | $143: 5,7,13,17$ |
| $122: 6143: 14$ | $250: 7254: 21$ | $234: 22$ | $143: 22144: 13$ |
| $149: 8171: 17$ | $274: 2286: 22$ | taylor $14: 5$ | $144: 15,17$ |
| $179: 12188: 21$ | $291: 14$ | $98: 10107: 3$ | $145: 11,18$ |
| $196: 7220: 16$ | talked $141: 11$ | tbd $225: 7290: 6$ | $148: 21149: 2$ |
| $220: 16238: 2$ | $262: 20$ | team $303: 2$ | $152: 12,15$ |
| $262: 7271: 18$ | talking $143: 18$ | $305: 17306: 5$ | $156: 10,13$ |
| $273: 24280: 21$ | $178: 8206: 19$ | technical $8: 17$ | $162: 21163: 4,8$ |
| $281: 5,6304: 14$ | $217: 19220: 6$ | $8: 18,1921: 7$ | $177: 14,18$ |
| takeaway | $220: 11224: 20$ | $21: 2544: 16$ | $178: 6,15,24$ |
| $192: 13219: 20$ | $232: 21248: 16$ | $45: 3,5,6,10,16$ | $182: 20,24$ |
| $221: 2222: 8$ | $264: 5278: 1$ | $45: 20,2546: 13$ | $184: 14185: 5$ |
| $223: 4254: 3$ | $288: 6$ | $46: 1753: 7,10$ | $187: 11,25$ |
| $260: 4290: 11$ | $62: 20,2372: 23$ | $188: 5,19,25$ |  |
|  |  |  |  |

[technical - thank]

| 194:23 195:13 | tell 44:23 64:24 | 309:8 | 191:1 192:18 |
| :---: | :---: | :---: | :---: |
| 195:18 196:12 | 65:13 109:2 | terribly 74:9 | 192:25 193:6 |
| 196:18 203:7 | 198:13 199:14 | territory | 193:24 194:3,9 |
| 203:10,13,15 | 203:21,22 | 282:14 | 202:5,14,17,23 |
| 203:20,24 | 204:20 208:7 | test 166:7 | 207:2 218:23 |
| 204:6,14,19,24 | 295:8 307:19 | 226:14 227:5 | 262:21 293:11 |
| 205:1 262:12 | telling 178:3 | 252:1 255:21 | 293:14,20 |
| 262:14 263:5 | tells 114:9 | 256:3,4,8 | testing 227:9 |
| 263:13,18 | template | 270:21,21,23 | tests 227:16,20 |
| 264:2,10 265:2 | 122:20,24 | 271:2 298:21 | 227:22 255:1 |
| 265:14 266:4,9 | temporarily | testified 61:14 | 256:1 271:21 |
| 267:5,17 268:6 | 242:1 245:16 | 65:14 68:17 | tex 172:9,18 |
| 269:5,12,20 | temporary | 70:25 81:12 | 174:5 |
| 270:3,11,17 | 206:8 210:6 | 87:14 98:11,24 | texas 2:18 |
| 271:5,22 272:4 | 213:13 224:14 | 100:10 128:17 | 31:23,25 32:14 |
| 272:9,20 | ten 75:16 122:1 | 133:25 136:24 | text 286:17 |
| 273:15,21 | 125:8 149:8 | 137:18 175:6 | thank 22:2,12 |
| 274:10 275:18 | 217:10,10 | 198:14 199:15 | 22:16 23:2,8 |
| 276:8,18,22 | 246:24 258:21 | 208:8,23 | 24:6,16 25:6 |
| 277:1 278:5,21 | tend 264:5 | 283:17 293:9 | 25:20 26:2,4,5 |
| 279:7,11,25 | tender 61:19 | 295:15 | 26:6,13 28:4,6 |
| 280:4,7 281:14 | 68:25 71:5 | testifies 71:22 | 30:12 31:12,13 |
| 282:16 283:1 | 285:2 | 78:12 | 32:1,19,20 |
| 294:7,11,14 | tending 264:6 | testify 201:24 | 33:10,16 35:19 |
| 298:15,18 | tends 204:14 | 307:11 | 35:20,21 36:22 |
| 299:1,21,24 | tense 197:18 | testifying 311:5 | 37:25 38:4 |
| 300:1,6 301:3 | term 174:1 | testimony | 39:11 44:14 |
| 301:24 302:4 | 264:13 309:14 | 11:14,16 12:3 | 46:15,19 48:4 |
| 302:12 303:24 | terms 70:10 | 12:5,7 14:13 | 48:14,15 49:12 |
| 305:9,21 306:8 | 109:13 111:1 | 14:14,16,21,22 | 50:6,10,12 |
| 306:17,22,25 | 111:16 154:22 | 19:13, 14,15 | 53:5 54:11 |
| 309:21 | 206:15 224:1 | 51:25 52:9 | 56:24 57:12,13 |
| technically | 225:19 259:8 | 61:1,12 62:3 | 57:19,24 58:3 |
| 178:18 | 264:9,13 | 104:13,23,25 | 58:10,13 61:23 |
|  | 287:24 304:5 | 111:24 112:6 | 62:15,17,18,24 |

Page 89
[thank - think]

| $65: 1566: 2,10$ | $148: 18149: 4$ | $248: 16259: 7$ | $85: 8117: 21$ |
| :--- | :--- | :--- | :--- |
| $66: 11,2267: 1$ | $149: 16152: 6$ | $262: 6,14$ | $123: 25252: 25$ |
| $67: 6,11,14$ | $152: 10,16$ | $271: 17279: 12$ | $253: 4254: 21$ |
| $69: 471: 7,9$ | $153: 15156: 8$ | $279: 24280: 1,1$ | $266: 1282: 3$ |
| $72: 9,13,15,21$ | $156: 14,15,24$ | $280: 2283: 4,5$ | $291: 10$ |
| $74: 6,6,1475: 2$ | $157: 14158: 1$ | $283: 7285: 6$ | think $28: 22$ |
| $75: 477: 3,3,5$ | $158: 12159: 6$ | $294: 1,4,9,16$ | $30: 4,19,22,24$ |
| $77: 1979: 17,21$ | $162: 14,17,19$ | $298: 1,12$ | $32: 10,1333: 5$ |
| $80: 2,10,18,21$ | $163: 6,9,10,22$ | $306: 18,18,20$ | $35: 437: 11$ |
| $83: 1184: 14,16$ | $164: 10,15,16$ | $307: 2308: 8,22$ | $38: 145: 14$ |
| $84: 19,2085: 19$ | $166: 20167: 14$ | $309: 23310: 3,5$ | $46: 447: 10$ |
| $86: 8,1089: 25$ | $170: 1,2,4,5,14$ | $310: 6,8$ | $48: 854: 175: 8$ |
| $90: 396: 1,2,15$ | $170: 18171: 2$ | thanks $31: 16$ | $76: 8,11,20$ |
| $96: 18,1997: 3$ | $177: 12,20$ | $96: 24116: 3$ | $86: 187: 24$ |
| $97: 12100: 4,20$ | $179: 14180: 1,2$ | $283: 3$ | $91: 1894: 2,3$ |
| $100: 21,22$ | $180: 7182: 18$ | that'd $47: 22$ | $95: 1,6100: 16$ |
| $102: 22,24$ | $182: 25183: 8$ | $211: 19$ | $102: 12106: 9$ |
| $103: 1,6,17,20$ | $183: 21184: 8$ | theme $275: 21$ | $107: 22108: 7$ |
| $105: 14,21,23$ | $184: 17,21,23$ | thick $290: 19,22$ | $114: 15115: 1,8$ |
| $109: 23,24$ | $185: 9,12,13,19$ | thickness | $115: 9117: 22$ |
| $110: 20,23$ | $186: 1187: 9$ | $176: 15181: 23$ | $123: 2,20,23$ |
| $112: 18,25$ | $188: 23189: 1,2$ | $290: 17,18,25$ | $125: 9126: 1$ |
| $116: 4,17,19$ | $190: 21,24$ | $291: 3$ | $131: 20134: 25$ |
| $117: 5,11,17$ | $194: 21196: 10$ | thing $28: 20$ | $142: 21145: 25$ |
| $122: 7,12$ | $196: 18,20$ | $39: 1346: 2$ | $146: 21149: 24$ |
| $123: 13126: 5$ | $198: 2,15199: 3$ | $55: 6114: 20$ | $151: 11,20$ |
| $126: 17,21$ | $199: 16200: 22$ | $139: 14151: 13$ | $152: 5,18156: 4$ |
| $127: 9130: 24$ | $202: 19204: 17$ | $157: 11175: 20$ | $156: 16157: 1,9$ |
| $131: 5,24132: 6$ | $204: 21205: 2$ | $219: 11221: 15$ | $157: 10158: 15$ |
| $132: 9,15,18,19$ | $205: 13,14,15$ | $224: 15237: 14$ | $162: 1,23170: 8$ |
| $132: 23133: 1$ | $207: 22208: 2$ | $250: 7278: 13$ | $171: 25173: 9$ |
| $138: 2141: 4,6$ | $208: 11209: 12$ | $279: 13,16$ | $178: 3,19$ |
| $141: 7143: 1$ | $218: 3220: 4$ | $301: 13$ | $181: 13183: 22$ |
| $144: 17145: 2$ | $221: 25240: 1$ | things $26: 21$ | $188: 19189: 18$ |
| $145: 11,18$ | $247: 10248: 4$ | $40: 1163: 24$ | $189: 21190: 3$ |
|  |  |  |  |
|  |  |  |  |

Page 90
[think - today]

| 194:23 195:18 | 217:5 221:2 | throw $274: 17$ | $266: 3267: 12$ |
| :---: | :---: | :--- | :--- |
| $196: 7197: 14$ | $234: 21237: 19$ | thursday $8: 14$ | $268: 13,14,21$ |
| $197: 24201: 24$ | $253: 13254: 3$ | $21: 2310: 8$ | $269: 1,7,8$ |
| $202: 5207: 2,13$ | $254: 15263: 2,3$ | tied $38: 23,25$ | $278: 8,13$ |
| $212: 3,23218: 1$ | $263: 7,11$ | $222: 21,25$ | $280: 14285: 2$ |
| $218: 2,19,21,22$ | $269: 23288: 2,7$ | tiger $81: 19$ | $300: 24303: 9$ |
| $219: 9223: 8$ | $288: 10289: 21$ | tiktok $85: 8$ | $303: 15305: 8$ |
| $228: 9231: 24$ | $290: 5291: 1,2$ | till $262: 7$ | $305: 25308: 14$ |
| $233: 22235: 16$ | $292: 12$ | time $8: 1528: 8$ | $308: 16309: 3$ |
| $242: 8,15248: 9$ | thirteen $250: 5$ | $28: 1530: 1$ | timelines |
| $256: 22,22$ | thoreson $14: 5$ | $44: 1056: 5$ | $181: 10$ |
| $258: 25262: 20$ | $98: 10,10,13,18$ | $61: 1968: 25$ | timely $37: 6$ |
| $263: 21272: 1$ | thought $122: 21$ | $71: 578: 6,15$ | $68: 770: 19,20$ |
| $272: 22275: 7$ | $148: 22163: 22$ | $79: 1,1383: 5$ | $79: 4,5,10$ |
| $275: 10,11$ | $178: 7265: 5$ | $88: 1289: 20$ | $82: 2483: 1$ |
| $276: 1277: 15$ | $267: 18299: 7$ | $95: 2096: 25$ | $89: 12,14105: 5$ |
| $278: 2,11,17,18$ | $299: 11304: 11$ | $125: 14130: 19$ | $112: 9119: 21$ |
| $279: 12,13,14$ | thoughts | $131: 8135: 5$ | $121: 18129: 25$ |
| $279: 15,16$ | $273: 11$ | $138: 16153: 20$ | $130: 1,13,15$ |
| $282: 17285: 14$ | thousand $250: 6$ | $156: 14161: 16$ | $139: 8151: 11$ |
| $300: 14,18,18$ | three $47: 1$ | $163: 23169: 12$ | $151: 20169: 15$ |
| $301: 15,18$ | $70: 1171: 15$ | $172: 8186: 10$ | $176: 25182: 4$ |
| $302: 20309: 8$ | $104: 11110: 9$ | $198: 18200: 16$ | $192: 19,20$ |
| $309: 22$ | $114: 5,7115: 2$ | $204: 25219: 19$ | times $44: 24$ |
| thinking | $115: 19116: 1$ | $219: 24220: 1$ | $141: 13172: 22$ |
| $201: 17232: 9$ | $124: 21186: 23$ | $229: 3,8235: 18$ | $226: 19248: 18$ |
| $278: 19301: 12$ | $197: 16198: 16$ | $242: 16,16$ | $277: 7$ |
| $302: 15$ | $206: 10217: 7$ | $246: 1,3247: 16$ | title $41: 23$ |
| third $29: 17$ | $221: 22222: 1$ | $250: 20252: 5$ | $136: 6,7161: 15$ |
| $93: 2099: 5,10$ | $223: 6230: 11$ | $252: 10,21$ | $166: 10169: 11$ |
| $159: 23165: 4$ | $248: 2249: 8,21$ | $254: 8,18$ | $174: 6175: 19$ |
| $167: 25168: 24$ | $250: 18252: 20$ | $255: 13256: 3$ | titled $69: 17$ |
| $180: 14186: 7$ | $253: 16270: 7$ | $257: 14258: 19$ | $146: 5301: 10$ |
| $186: 11210: 8$ | $278: 8302: 21$ | $260: 7262: 4$ | today $21: 11,17$ |
| $212: 14214: 23$ | $302: 21304: 24$ | $263: 6265: 1$ | $39: 18,2340: 4$ |
|  |  |  |  |

Page 91
[today - triggers]

| 40:12,25 44:6 | 217:3 231:9,16 | tracking | trajectories |
| :---: | :---: | :---: | :---: |
| 46:3,8 50:8 | 233:24 238:7 | 140:12 255:16 | 121:8 237:18 |
| 53:25 96:25 | 239:20 240:8 | 307:9 | 237:20,25 |
| 102:2 118:5,19 | 278:24,24 | tracks 255:12 | 238:5,19 239:5 |
| 131:8 144:19 | 279:4 290:7 | tract 27:16,17 | 239:15,17 |
| 151:19 157:6 | total 138:11 | 29:5 41:20 | 240:6 |
| 186:4 190:25 | 250:17 268:12 | 52:6 53:21 | trajectory |
| 205:23 207:1 | 278:12,13 | 67:21 69:11 | 120:19 217:17 |
| 207:10 218:14 | 290:17,18,25 | 73:4,5 82:7 | 220:14 |
| 226:20 259:1 | 291:3 | 88:19 107:5 | transcriber |
| 262:20 290:10 | totally 48:25 | 114:4,11,17,24 | 312:1 |
| 293:17 294:21 | touch 92:13 | 114:25 115:2 | transcript |
| today's 107:20 | 188:16 224:25 | 119:8,12 | 149:24 312:3,5 |
| together 33:6 | touches 230:20 | 129:18 135:17 | transcriptionist |
| 36:15 97:24 | touchy 183:13 | 144:23 160:18 | 311:7 |
| 181:8 218:24 | tough 117:23 | 165:12 | transducers |
| 222:20 229:23 | towards 27:22 | tracts 40:19 | 255:3 |
| 237:10 246:13 | 78:17 253:21 | 52:2,6 54:16 | transportation |
| 249:3 250:11 | 267:6 273:11 | 54:19 55:8,9 | 192:11,12 |
| 250:12 253:12 | 274:11 278:14 | 59:6 61:4 98:4 | treated 232:15 |
| 257:4 274:14 | 299:8 | 104:14 112:1 | 232:22 |
| 275:16 291:5,8 | township 50:20 | 113:25 114:23 | tremaine 9:15 |
| 303:7 | 51:2,11 58:16 | 119:9,12 | 184:20,21 |
| tolerance 27:15 | 58:17,23,24 | 135:14,16 | 185:11 |
| 28:25,25 | 59:12,13,19,20 | 136:18,21 | trend 75:18 |
| tommy 154:8 | 67:24 77:25 | 140:8 154:15 | 76:12 230:5 |
| tomorrow 44:7 | 81:3 86:19 | 156:19 160:17 | 253:12 254:16 |
| 264:22 | 103:24 111:9 | 161:1 168:12 | trending |
| tons 138:19 | 118:13 127:22 | 172:3,6 175:18 | 256:12 |
| took 239:2 | 165:2 167:21 | 181:5 | trends 76:8 |
| 244:22 | 175:1 191:11 | trade 23:22,24 | 252:4 277:18 |
| top 74:18 99:4 | 211:2,5 | 23:24 24:1 | tried 263:1 |
| 137:9 159:20 | trace 220:18 | 25:4 | trigger 40:24 |
| 167:14 180:17 | track 253:21 | trains 134:15 | triggers 54:16 |
| 193:10 216:3 | 286:8,9,10 |  |  |

## [triple - uncommitted]

| triple 286:7,7 | tuesday 68:7,8 | 186:22 187:6 | 303:22 |
| :---: | :---: | :---: | :---: |
| 289:12 | 69:25 75:14 | 188:3 205:8 | typewriting |
| trouble 39:22 | 133:17 140:11 | 206:7,13,25 | 311:7 |
| 213:2 | 145:5 | 207:11 210:15 | typical 264:3 |
| true 76:15 | turn 24:13 | 211:1 212:11 | typically 56:16 |
| 141:16 145:15 | 122:24 | 219:18,19,20 | 178:16 |
| 147:24 148:2 | turned 84:9 | 221:18 222:18 | typo 101:6,9 |
| 217:23,25 | turning 68:6,15 | 222:20 223:1,7 | 114:13 |
| 231:16 241:15 | 70:23 | 223:12 225:21 | u |
| 311:9 312:5 | turns 145:3 | 230:8 236:21 | u 172:9 207:21 |
| truly 141:10 | twentieth 40:15 | 237:19 243:23 | u.s. $284: 12$ |
| 269:1 | twenty 44:24 | 247:24 251:15 | ultimate |
| truth 65:13,13 | two 8:9 23:12 | 253:4,12 | 194:13 277:4 |
| 65:14 198:13 | 33:5 37:7,12 | 254:21 255:3 | ultimately $44: 4$ |
| 198:13,14 | 37:15 42:2 | 259:5,5 260:6 | uluru 111:12 |
| 199:14,14,15 | 43:5 44:4 45:7 | 266:22 270:1 | unable 27:24 |
| 208:7,7,8 | 46:8 50:17 | 278:15 289:1 | unanticipated |
| try 27:21 72:8 | 54:20 63:23 | 296:1,22 | 78:21 |
| 94:17 122:14 | 64:7,8 65:1 | 302:18 305:13 | unavailable |
| 124:3 177:13 | 70:3 91:16 | 306:2 | 294:21 |
| 197:10 203:1,4 | 94:2 114:4,7 | twofold 228:18 | unaware |
| 277:3 308:15 | 119:9 124:20 | tying 222:20 | 186:12 |
| trying 37:5 | 127:13 128:21 | tyler 13:16,18 | unchanged |
| 73:3 107:18 | 128:22 129:12 | 17:6 87:13,13 | 206:17 210:19 |
| 123:3,4 144:25 | 129:13 133:2,2 | 155:3 | $210: 21$ |
| 160:12 171:23 | 133:8 134:3,9 | type 89:5 | uncommitted |
| 188:8 194:24 | 137:1 138:5 | 124:17 201:18 | $42: 150: 18,23$ |
| 195:7 200:4 | 142:8,9,9,14 | 225:5 228:7 | 51:7 58:15,20 |
| 221:23,24 | 147:16 148:8 | 238:21 265:10 | 59:15 69:21 |
| 289:13 301:9 | 154:7 166:6,20 | 275:11,11 | 80:23 82:8 |
| 302:5 | 169:25 172:7 | 282:1,13 | 86:16 88:20 |
| tubing 225:22 | 174:4 177:8 | 285:14,20,23 | $101: 5,10$ |
| 226:24 227:1,2 | 180:14 182:14 | 286:4,5 289:11 | 103:22 105:18 |
| 253:14,15,19 | 183:3,6,10 | 289:12 300:20 | $106: 22,23$ |
| 254:12 263:16 | 186:8,13,17,21 | 300:22 303:8 | 107:14 111:1,5 |

## [uncommitted - units]

| $118: 8127: 11$ | $307: 13,15$ | undertaken | $129: 2135: 18$ |
| :---: | :---: | :---: | :--- |
| $129: 19133: 8$ | $308: 21310: 2$ | $295: 17,21$ | $135: 24136: 19$ |
| 159:15 161:13 | underestimati... | unfortunately | $137: 13,15$ |
| uncommitteds | 274:1 | 34:13 212:17 | $138: 5,24$ |
| 102:4 | underground | unidentified | $141: 20142: 1$ |
| under $2: 45: 7$ | $193: 22$ | $49: 5310: 6$ | $144: 2147: 7$ |
| $23: 2335: 23$ | underlain | uniform $176: 15$ | $155: 5,9156: 22$ |
| 52:25 56:17 | $287: 5,15$ | $181: 23$ | $159: 17160: 25$ |
| $57: 466: 5$ | underline | unit $2: 233: 13$ | $162: 10163: 16$ |
| $76: 1978: 13,25$ | $127: 21$ | $4: 10,205: 19$ | $165: 3167: 23$ |
| $79: 1680: 5$ | underlying | $6: 4,187: 441: 7$ | $167: 24174: 8$ |
| $83: 484: 24$ | $58: 2159: 17$ | $46: 550: 25$ | $175: 4176: 11$ |
| $89: 1999: 24$ | $77: 2481: 1$ | $51: 3,9,13,18,19$ | $177: 25179: 5$ |
| $102: 16105: 10$ | $86: 18103: 23$ | $52: 5,553: 13$ | $179: 22180: 18$ |
| $109: 18111: 1$ | $111: 7127: 20$ | $54: 14,1556: 4$ | $180: 22181: 23$ |
| $111: 16112: 14$ | $164: 21167: 16$ | $57: 758: 23$ | $183: 5,16$ |
| $116: 13122: 7$ | $225: 13253: 25$ | $59: 1,8,18,21$ | $191: 10,15,23$ |
| $126: 16130: 19$ | $287: 25$ | $60: 9,1261: 10$ | $192: 14193: 8$ |
| $132: 5136: 20$ | underneath | $61: 1163: 2,18$ | $193: 14243: 21$ |
| $136: 21141: 1$ | $288: 8,15$ | $64: 10,1966: 6$ | units $41: 13,15$ |
| $148: 12153: 3$ | understand | $67: 18,2369: 9$ | $63: 7,1364: 8,9$ |
| $186: 8188: 4$ | $27: 933: 24$ | $73: 7,1377: 23$ | $81: 1797: 15,25$ |
| $190: 16200: 2$ | $96: 5102: 9$ | $78: 10,1881: 2$ | $98: 14,19,20$ |
| $201: 2202: 3$ | $108: 14146: 21$ | $81: 582: 1$ | $101: 8111: 11$ |
| $205: 6206: 13$ | $178: 11187: 12$ | $86: 23,2587: 4$ | $114: 16128: 22$ |
| $206: 16209: 24$ | $195: 8214: 22$ | $87: 6,2288: 5$ | $131: 11133: 4,9$ |
| $210: 14,18$ | understanding | $98: 3103: 23$ | $133: 9134: 4,6$ |
| $211: 17212: 5$ | $23: 2263: 15,17$ | $104: 1,3,4,10$ | $134: 12,19$ |
| $213: 6,14$ | $199: 1,20$ | $107: 5111: 7,15$ | $135: 3,8138: 9$ |
| $225: 22228: 1$ | $201: 15215: 3$ | $118: 9,12119: 6$ | $138: 13142: 9$ |
| $228: 12232: 6$ | $263: 19303: 14$ | $119: 8,13$ | $142: 14,22$ |
| $235: 1243: 8$ | $304: 5$ | $120: 14,17,19$ | $147: 17161: 8,8$ |
| $244: 7,21$ | understands | $120: 22121: 11$ | $169: 3,4173: 13$ |
| $245: 25261: 14$ | $215: 11$ | $121: 15124: 7$ | $173: 19181: 19$ |
| $277: 4297: 1$ |  | $128: 1,4,8,11$ | $183: 10,13$ |
|  |  |  |  |
|  |  |  |  |

[units - vice]

| 243:24 <br> university | upside 84:9 <br> upwards 250:5 | $\begin{aligned} & \text { 269:22 276:12 } \\ & 281: 22 \end{aligned}$ | $\begin{aligned} & \text { 94:5,8,20 95:6 } \\ & \text { 95:13,17 96:1 } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 284:7 | 256:12 305:2 | v | 96:3,15,19 |
| unknown 11:5 | usa 6:1 8:1 16:2 | v 3:10 11:13 | 126:25 127:1,9 |
| 11:6 | 20:2 57:20,23 | $48: 17 \text { 50:11,15 }$ | 131:12,17,20 |
| unleased | 132:11 141:2 | 50:17,22 51:6 | 131:25 132:9 |
| 124:21 | 148:15 205:18 | 51:16 53:2 | varies 231:10 |
| unlocatable | 205:21,24 | 55:2 57:9 | variety 284:11 |
| 79:8,11 121:23 | 208:21 261:21 | vacate 38:20 | various 120:6 |
| 125:16 172:19 | 262:1 297:23 | 183:3 308:25 | 211:22 214:21 |
| unmuted 87:24 | 298:4 | 183.3 308. | 224:21 226:18 |
| unorthodox | use 49:16 | 36.24 50.2 | 226:18 227:17 |
| 6:23 171:14 | 160:12,13 | 183:19 | 233:1,1 237:10 |
| 173:3,5,13 | 281:16 | valid 183:18 | 238:20 241:8 |
| 174:18 178:21 | used 122:20 | 281:20 | 247:6 249:14 |
| update 263:25 | 304:11,12 |  | 257:11,15,15 |
| 267:21 279:17 | using 272:21 |  | 258:1 275:13 |
| 285:15,22 | 289:11 |  | 276:10 |
| 286:1,1 | usual 41:19 | $250 \cdot 5252$. | verify 115:18 |
| updated 135:5 | 54:20 68:11,14 | 253:5,7 | 115:22 173:14 |
| 148:23 155:19 | 71:11 154:13 |  | 174:17 |
| 182:8 188:10 | 155:4 160:7,16 | 257:21 258: | version 106:21 |
| 188:12 211:11 | 161:5 165:11 | 272:19 275:10 | versus 267:15 |
| 222:11 223:23 | 165:23 168:6 | valve 253:18 | 273:10,22 |
| 225:18 229:9 | 168:18 171:21 | valve | 275:9 277:6 |
| 230:1 232:3 | 173:16 176:9 |  | 298:22 300:4 |
| 234:9 242:9,10 | 181:2 |  | vertical 121:10 |
| 242:23 267:22 | usually 55:24 |  | 191:9 201:14 |
| 267:22 285:20 | utilize 210:5 | 72:15 80:14,15 | 214:21 217:23 |
| updates 224:19 | 270:2 | 80:21 83:20 | 217:25 231:16 |
| upper 242:25 | utilized 244:25 | 84:5,10 85:4 | 241:15 |
| 246:21 252:14 | 264:25 | $85: 11,15,17$ | vertically |
| upset 281:2 | utilizing 217:9 | 86:10 90:10,15 | 215:18 |
| upsets 232:12 | 227:23 228:5 | 91:4,11,15,19 | vice 192:23 |
| 232:17 281:10 | 234:10 254:25 | 92:1,14 93:10 | 199:7 |

Page 95
[videoconference - wells]

| videoconfere... | want 35:3 40:6 | waste 51:21 | weeds 73:25 |
| :---: | :---: | :---: | :---: |
| 8:13 | 44:8 56:3,10 | 137:3 192:6,7 | week 39:12 |
| view 29:9,9 | 76:5 96:9,11 | 193:23 246:17 | 41:3 305:13 |
| 93:4 215:2,8 | 97:4 102:23 | 260:15 293:24 | weeks 37:7,13 |
| 215:15,16 | 106:4 108:25 | watching | 37:15 44:5 |
| 216:19 | 109:7,9 123:25 | 102:24 | 151:10 166:20 |
| viewed 249:25 | 150:20 158:19 | water 192:12 | 169:25 177:8 |
| viewer 212:21 | 178:11 185:5 | 192:14 243:4 | 182:14 302:18 |
| viewpoint 92:7 | 187:12,21,21 | 292:23 293:7 | 304:17 306:2 |
| void 279:2 | 188:6,12,16 | way 76:7 | weight 278:12 |
| volume 229:7 | 189:4,25 190:4 | 109:11 141:16 | weird 92:1 |
| 249:17 250:3 | 190:6,7 200:9 | 146:22 158:23 | welcome 117:6 |
| 278:8,12,14 | 202:1 228:4,10 | 183:15 207:3 | well's 227:17 |
| volumes 248:5 | 248:13 252:18 | 213:20 276:4 | wellbore 28:2 |
| 248:12,23,24 | 253:16 254:21 | 307:21 | 71:12 224:1,16 |
| 250:4,18 251:4 | 259:14,24 | ways 276:11 | 224:17 225:2 |
| 253:2 256:16 | 260:7 304:19 | wc 127:17 | 237:25 242:3,5 |
| 258:19 267:14 | 306:11 308:24 | we've 27:24 | 242:11 243:1 |
| 295:24 303:17 | 308:25 | 28:12 48:8 | 254:9 |
| 303:19 | wanted 23: | 56:19 64:7 | wellbores |
| voluntarily | 32:3 73:21 | 71:15 82:6 | 176:16 |
| 98:14 | 83:19 105:17 | 111:18 122:1 | wellhead |
| w | 107:20 115:18 | 124:13 129:5 | 220:19 221:10 |
| (0ad 86:25 | 118:5 122:21 | 141:13 144:19 | 253:19 258:6 |
| w0ha 87:1 | 125:18 148:5 | 229:25 231:15 | wells 8:6 29:11 |
| w0il 87:7 | 183:22 196:22 | 231:15 232:25 | 40:20 41:14,15 |
| $\pm 0$ $81: 1$ | 200:14 201:14 | 233:3 234:18 | 42:12,17,17,18 |
|  | 201:16 242:24 | 246:25 247:2,5 | 42:21,22 51:5 |
| $\text { walk } 127: 12$ | 255:21 259:1 | 247:23 249:21 | 51:15 52:2 |
| 218:19 229:17 | 260:23 261:5 | 250:4 254:18 | 59:22,23 60:3 |
| 237:4,5 251:10 | 264:22 266:16 | 257:19 259:3,3 | 60:11 61:4 |
| 252:3 285:23 | wants 209:23 | 261:3 273:17 | 63:12,17 68:2 |
| 288:23 291:5 | warp 163:23 | weakest 230:23 | 68:3 69:8,10 |
| walking 220:2 | warren 107:3 | website 21:18 | 71:24 78:2 |
| 251:2 |  |  | 81:7,18 82:21 |

Page 96
[wells - winchester]

| $87: 1,8,2189: 9$ | $211: 15,16,21$ | $242: 4,18,20,22$ | west $41: 11$ |
| :--- | :--- | :--- | :--- |
| $96: 13$ 98:1,2,3 | $211: 24,25$ | $243: 3,10$ | $50: 2451: 8$ |
| $98: 2099: 5,8$ | $212: 2,11213: 7$ | $244: 20247: 21$ | $59: 1160: 6$ |
| $111: 13117: 20$ | $213: 13,21$ | $248: 23249: 8$ | $72: 177: 24$ |
| $118: 15119: 7$ | $214: 4,5,6,9,15$ | $249: 11,21$ | $87: 2097: 16,17$ |
| $120: 20121: 5,6$ | $214: 16,19$ | $250: 11,18$ | $97: 21103: 24$ |
| $121: 10,14$ | $215: 2216: 14$ | $253: 3254: 25$ | $104: 8,8,8$ |
| $128: 22129: 16$ | $216: 16217: 7$ | $257: 7259: 10$ | $128: 1,3150: 4$ |
| $130: 10133: 11$ | $217: 11218: 15$ | $260: 9,11,19$ | $150: 4159: 17$ |
| $133: 12,13,15$ | $221: 12,22$ | $261: 5,9264: 3$ | $159: 18171: 11$ |
| $133: 16134: 5$ | $222: 2,17,17$ | $264: 13,20$ | $174: 25211: 3,3$ |
| $134: 24135: 11$ | $223: 15,16,17$ | $265: 1266: 11$ | $215: 21216: 25$ |
| $136: 13137: 13$ | $223: 25224: 2$ | $266: 14,23,25$ | $222: 15238: 13$ |
| $138: 13,14,14$ | $224: 13225: 19$ | $267: 1,7,13$ | $249: 10$ |
| $147: 16,21,21$ | $225: 21226: 1,3$ | $269: 10,19$ | westerly |
| $150: 7,16,21$ | $226: 9,12,14,17$ | $270: 7,8271: 3$ | $215: 18$ |
| $154: 8155: 5,7$ | $226: 20,24$ | $271: 10,13,16$ | whew $201: 22$ |
| $155: 7156: 3$ | $227: 3,10,15,19$ | $271: 16274: 9$ | whiptail $7: 7$ |
| $159: 23160: 2$ | $227: 21,23$ | $275: 17277: 23$ | $184: 12,15$ |
| $160: 11,14$ | $228: 2,6,8,10$ | $280: 25281: 6,8$ | $185: 2,16$ |
| $165: 5166: 2,2$ | $229: 12,20$ | $281: 9286: 3,14$ | white $83: 18$ |
| $166: 3,7167: 24$ | $230: 4,6,7$ | $286: 15,20,22$ | $155: 20$ |
| $168: 9169: 2$ | $231: 1232: 11$ | $286: 23287: 18$ | wholly $128: 22$ |
| $173: 18,22,22$ | $232: 15,18$ | $289: 4,14,18$ | wide $46: 3$ |
| $175: 2,10$ | $233: 1,8234: 6$ | $290: 3,3292: 2$ | $135: 18,24$ |
| $178: 19180: 14$ | $234: 11,25,25$ | $292: 4,18,18$ | $147: 22,23$ |
| $180: 15181: 3$ | $235: 18,19$ | $295: 18300: 21$ | $176: 11195: 6$ |
| $181: 12,19$ | $236: 10,21$ | $301: 8,16302: 2$ | $195: 10,12$ |
| $182: 2195: 4$ | $237: 21238: 6,8$ | $304: 13308: 5,7$ | $299: 13$ |
| $197: 3,8,15$ | $239: 9,11,15,16$ | $308: 18309: 2$ | williamson |
| $198: 16199: 18$ | $239: 20240: 5,5$ | $309: 17$ | $113: 12114: 10$ |
| $199: 22201: 10$ | $240: 7,12,23$ | went $70: 13$ | $114: 25116: 1$ |
| $201: 14206: 8$ | $241: 1,4,5,7,7$ | $93: 11274: 22$ | willing $179: 2$ |
| $206: 20,24$ | $241: 11,13,19$ | $297: 15$ | winchester |
| $210: 3,4,4,6$ | $241: 22,23,25$ |  | $50: 2451: 8$ |
|  |  |  |  |
|  |  |  |  |

[wine - yeah]

| wine 180:15 | 302:10,19 | work 30:1,19 | 167:7 170:3 |
| :---: | :---: | :---: | :---: |
| withdraw 27:6 | 304:23 305:19 | 39:23 49:17 | writing 188:21 |
| withdrawn | 306:3,15 311:4 | 65:24 117:24 | written 31:5 |
| 39:5 | witnesses 10:2 | 137:19 147:6 | wrong 55:6 |
| withdrew | 118:19 206:25 | 185:5 212:17 | 107:23 131:23 |
| 23:18 110:15 | 207:8,10,12 | 221:24 233:18 | 148:24 151:7 |
| witness 34:14 | 208:6 294:17 | 283:21 284:4 | 201:8 |
| 65:12,17,23 | woke 39:12 | 293:14 | x |
| 78:11 98:10,23 | wolf 60:4 64:12 | worked 68:20 | x 10:1 11:1 |
| 194:25 198:12 | 67:16,17,20,23 | 68:21,23 71:4 | X 172:13 247:14 |
| 198:16 199:13 | 69:9,10 71:17 | 284:14 | 247:22 250:1 |
| 199:19,23 | 77:24 86:17 | working 42:10 | 252:5,21 |
| 205:15 207:4,4 | 111:6 133:4,11 | 49:16 54:21,22 | 257:13 |
| 207:15 208:12 | 135:21 137:10 | 68:21 69:17 | xto $2: 922: 17$ |
| 262:25 263:9 | 139:7,13,18 | 70:12,14 82:8 | $23: 17 \text { 26:8,12 }$ |
| 263:17 264:1,8 | 142:15 145:13 | 88:20 98:13 | 27:6,10,18,25 |
| 264:18 265:6 | 147:10,10,13 | 101:3 107:14 | 28:9,12,16 |
| 265:24 266:8 | 154:8 155:6 | 124:7,20 | 29:16,16 30:15 |
| 266:21 267:10 | 156:2 171:8,13 | 129:19 136:4 | 31:5 165:18 |
| 267:24 268:16 | 171:15 173:19 | 136:11 165:13 | 168:13 284:13 |
| 269:9,16,21 | wolfcamp | 169:10 175:19 | $\text { xto's } 27: 4$ |
| 270:10,16,22 | 58:16,21 59:4 | 175:21 181:5 | $28: 19$ |
| 271:17 272:3,8 | wonder 53:23 | 244:18 284:10 |  |
| 272:16 273:13 | 307:3 | 284:11,17 | y |
| 273:16,24 | wondering | workover | у 154:20 198:6 |
| 275:7 276:6,10 | 299:3 302:13 | 227:6 | 199:7 248:3 |
| 276:21,25 | word 28:19 | worksheet | 250:2 257:14 |
| 277:15 278:17 | 116:6 204:7 | 21:17 22:4 | y2 252:14 |
| 279:5,10,22 | 215:19 | 85:14 | yay 49:11 |
| 280:15 281:19 | wording | worry 85:8 | yeah 31:12 |
| 282:20 283:4,6 | 178:25 | worst 305:23 | 32:15 35:6 |
| 283:8 298:24 | wordings 179:1 | wozniak 23:1 | 38:22 40:8,15 |
| 299:18,23,25 | words 30:11 | 97:1 | 41:3,3 44:20 |
| 300:5,17 | 73:16 168:23 | wpx 86:1,3 | 45:14 47:3,20 |
| 301:22 302:3 |  | 164:6,9,14 | 47:23 49:20 |

## [yeah - zooming]

| 53:23 73:17,20 | year 4:377:22 | 242:21 |
| :---: | :---: | :---: |
| 74:21 77:2 | 79:1 138:20 | zones 166:7 |
| 83:25 92:10,19 | 150:10,20 | 176:14,20 |
| 93:1,8,17 94:1 | 227:22 241:6 | 186:13,23 |
| 94:3 106:11 | 259:5 264:25 | 212:4 225:14 |
| 109:7 113:24 | years 8:9 23:12 | 236:5 267:12 |
| 115:14 116:9 | 151:21 172:19 | 292:7,24 |
| 122:24 123:15 | 172:23 189:16 | zoom 219:12 |
| 123:18 141:15 | 206:14 210:15 | 220:4 240:18 |
| 142:7 143:19 | yellow 106:24 | 240:20 247:10 |
| 143:23 145:24 | 107:6,9,11 | 249:19 |
| 146:13,14,20 | 108:3,22 124:9 | zoomed 239:1 |
| 146:20,20,24 | 124:14 135:22 | zooming 91:23 |
| 147:3,3 153:9 | 136:2,9 144:24 |  |
| 153:14 157:9 | 145:10 217:16 |  |
| 157:10 158:24 | 250:8 251:10 |  |
| 159:3 162:25 | 255:16 |  |
| 163:24 167:13 | уep 47:8 95:4 |  |
| 187:25 189:18 | 279:25 295:11 |  |
| 189:19 200:23 | 309:22 |  |
| 203:18 204:6 | yeso 118:10 |  |
| 204:16 217:21 | 120:21 121:2 |  |
| 220:4 234:1 | yesterday |  |
| 242:7 264:11 | 24:25 28:10 |  |
| 265:14 266:5,5 | 37:3 43:2 |  |
| 267:10 269:5 | 49:12 70:8 |  |
| 270:4,5,6 | 72:6 104:19 |  |
| 271:22 272:4 | 123:16 185:3,7 |  |
| 272:11,20 | z |  |
| 273:15,21,22 | zero 250:4 |  |
| 276:6,22 278:5 | 254:8 255:12 |  |
| 278:16,21 | 258:15 269:2 |  |
| 286:1 299:24 | zoback 71:21 |  |
| 306:3,15 307:9 | zone 168:21 |  |
| 308:10 | 181:22 186:11 |  |

