

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GEOTAB USA, INC. And :
GEOTAB, INC., :
 :
Petitioners, :
 : Case IPR2023-00504
v. Patent 8,032,278
 :
OMEGA PATENTS, LLC, :
 :
Patent Owner. :
 :

VIDEO-CONFERENCED EXPERT DEPOSITION OF
JEFFREY MILLER, PH.D.
TAKEN THROUGH
VERITEXT

Taken on Thursday, February 29, 2024
9:00 a.m. to 1:22 p.m.

Reported by: Abigail D.W. Johnson, RPR, CRR, CRC

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I N D E X

EXAMINATIONS	PAGE
Examination By Mr. Santurri.....	4
Examination By Mr. Wichman.....	86

E X H I B I T S

EXHIBIT NO.	DESCRIPTION	PAGE
Exhibit 1001	US 8,032,278.....	6
Exhibit 1115	Miller Reply Declaration.....	6
Exhibit 1023	US 6,957,133.....	6

-000-

February 29, 2024

9:00 a.m.

P R O C E E D I N G S

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Thereupon --

JEFFREY MILLER, PH.D.,

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

EXAMINATION

BY MR. SANTURRI:

Q. Can you state your name for the record, sir?

A. Jeffrey Miller.

Q. All right. And Dr. Miller, I'm Ryan Santurri with -- representing Omega Patents, LLC.

You understand that you're being deposed today, based upon the opinions you offered on behalf of Geotab USA and Geotab, Inc., in the IPR2023-504?

A. Yes, I understand that.

Q. Okay. And have you given -- have you given deposition testimony before?

A. Yes, I have.

Q. About -- approximately, how many times have you been deposed?

A. About a dozen.

1 Q. Okay. Well, and you probably know the
2 basic rules, but I will run through them just to make
3 sure we are on the same page.

4 I have a series of questions for you today.
5 I will do my best to make my questions relatively
6 succinct. And if you could try to avoid talking over
7 my questions or interrupting me, I would appreciate it.
8 And likewise, I will do my best to avoid talking over
9 your testimony. That way we get a clean record from
10 our court reporter; okay?

11 A. Okay.

12 Q. And as you probably know, all of this is
13 being taken down by a court reporter. And so in order
14 for him -- I'm sorry -- in order for her to accurately
15 record the transcript, we need to make sure that not
16 only do we not talk over one another, but that we --
17 that you provide audible answers.

18 So head shakes and that sort of thing don't
19 work. You have to give an audible answer to my
20 questions; okay?

21 A. Okay.

22 Q. And you understand that you took an oath
23 today, just like if you were before a judge and a jury,
24 to tell the truth?

25 A. Yes, I understand that.

1 Q. Okay. And is there any illness or
2 medication that would make you unable to answer
3 questions truthfully under oath today?

4 A. No, there's not.

5 Q. Okay. Obviously, we are doing this
6 remotely via Zoom, which means that, ordinarily, you
7 and I would be in the same room, and we would know what
8 everybody is looking at. Here, that is not the same
9 case. Just if you can let me know -- obviously, you
10 have a computer up in front of you, can you tell me
11 what windows and applications you have currently
12 running on your local machine?

13 A. Yes, I have the Zoom application. I have a
14 program that runs my camera. And I have Adobe reader
15 opened with the three documents that Geotab's attorney
16 sent to me yesterday, which I believe came from you, in
17 preparation of the deposition.

18 (Exhibit Nos. 1001, 1115 and 1023
19 were marked for identification.)

20 BY MR. SANTURRI

21 Q. Yes, sir. And you should have
22 Exhibit 1001, Exhibit 1023 and Exhibit 1115.

23 Does that look right?

24 A. Yes, those are the three PDFs I have open.

25 Q. Okay. And I will ask you that while you're

1 testifying, if you cannot communicate with anybody else
2 via email, text or other means, just because I want to
3 make sure that I'm getting the benefit of your
4 testimony. And if you need to access other documents,
5 that's fine. You just need to let me know.

6 You know, for example, if you told me --
7 you need to -- I did not send you the '885 patent, but
8 if, for my questions, you needed access to that, I'm
9 happy to provide it to you; all right?

10 A. Okay.

11 Q. Have you ever been retained by either of
12 the Geotab entities as an expert prior to this case?

13 A. No, this is the only case for which I have
14 been retained by Geotab.

15 Q. And have you ever been retained on -- on
16 behalf of any other clients of Wolf Greenfield, other
17 than Geotab?

18 A. No, I don't believe that I have.

19 Q. Okay. And in -- in this particular case, I
20 think you provided two declarations related to the
21 invalidity of the '278 patent, which you have in
22 Exhibit 1001?

23 A. Yes, that's correct.

24 Q. Okay. I'm going to focus your attention on
25 the -- the second declaration you gave. And it's at

1 your Exhibit 1115. And this was the declaration of
2 Jeffrey Miller, PhD, in support of Petitioner's reply
3 to POR.

4 That's one of the documents you have in
5 front of you; correct?

6 A. Yes, I have that document in front of me.

7 Q. First of all, did you -- were you the one
8 that drafted the declaration at 1115?

9 A. I worked with Geotab's attorneys in
10 drafting this declaration. Everything in this
11 declaration is my work and my opinions.

12 Q. Okay. So would you describe it -- as in
13 terms of actually drafting it, were you the primary
14 drafter of this opinion?

15 A. We worked through a number of different
16 meetings and back-and-forths. I did draft the opinions
17 that are there. The attorneys put it into the proper
18 format. As I understand, there is a specific format
19 that declarations need to be in.

20 Q. Attached to your -- the declaration, and
21 this was a -- just to give you a shorthand version, a
22 name for it, this was -- it looks like it was executed
23 on January 23, 2024, according to page 32.

24 Does that sound about right to you? Or you
25 are welcome to look at page 32 and confirm.

1 A. I signed the reply declaration on
2 January 23rd of 2024.

3 Q. Okay. And I'm -- I'll -- just in terms of
4 the shorthand, just going to refer to this as your
5 "2024 declaration"; is that fair?

6 A. Okay.

7 Q. Just because I -- you did issue an earlier
8 declaration in 2023, but my focus right now is on the
9 2024 declaration.

10 If you can -- it's actually the following
11 page, you have an Exhibit A with the materials
12 considered. If you could take a look at that, and just
13 confirm for me that you believe that this is an
14 accurate list of the documents that you considered in
15 the context of preparing the opinion that rests in your
16 January 2024 declaration.

17 A. Starting on page 33, on what you're
18 referring to as my 2024 declaration, that's Appendix A
19 which is "Materials Considered."

20 And it contains a table listing the
21 different documents that I considered when forming my
22 opinions that are in this declaration.

23 Q. Do you have -- do you have a sense for how
24 long you spent preparing the 2024 declaration?

25 A. No, I don't have a sense of it.

1 Q. In the context of -- of preparing it, did
2 you also consider -- I guess, that's one of the first
3 things you list here, the patent owner response,
4 Paper 15. That's one of the documents you reviewed as
5 you worked through this January -- preparing this
6 January 2024 declaration?

7 A. Yes, I did consider the patent owner
8 response in my opinions for this declaration.

9 Q. Okay. And did -- is it fair to say that
10 you carefully considered all of the prior art that you
11 identified in your declaration?

12 A. You used the word "carefully" in there. I
13 considered all of the material that is in Appendix A.
14 I just want to be careful with what you mean by the
15 word "careful."

16 Q. Okay. Are there -- there are documents
17 that you considered, but you didn't consider them with
18 much care?

19 A. No, I wouldn't say that. There are
20 documents in here. Obviously, this is a large number
21 of pages considering all of these documents. And these
22 were considered in forming my opinions.

23 Q. Now you indicate, in your materials
24 considered, that you considered the prosecution -- let
25 me back up.

1 You understand that there have been at
2 least five ex parte reexaminations of the '278 patent?

3 A. Yes, I believe that's true.

4 Q. In fact, you can see, in what you have
5 identified as Exhibits 1005 through 1009, are the
6 prosecution histories for reexams one through five; is
7 that right?

8 A. Yes, that's Exhibits 1005 through 1009.

9 Q. And did you consider the prior art that is
10 referenced -- let me start initially with you -- you --
11 Exhibit 1002 is the prosecution history for the '278
12 patent.

13 Do you see that?

14 A. Yes, I see that.

15 Q. And you understand that the prosecution
16 history is just the back-and-forth between the patent
17 office and the patent owner or the applicant, at least,
18 when they first applied?

19 A. I recall reviewing that. I don't know that
20 that was all that's included in there, but I do
21 remember seeing the back-and-forth between the patent
22 office and the patent owner.

23 Q. Did you consider -- as part of your
24 analysis in forming your opinions on invalidity in this
25 case, did you consider all of the art that was

1 referenced in the prosecution history of the '278
2 patent?

3 MR. WICHMAN: Objection. Scope.

4 Counsel, this deposition is limited to the
5 subject matter of the reply declaration.

6 BY MR. SANTURRI:

7 Q. You can still answer.

8 A. I reviewed the prosecution history. And
9 any of the other documents that I reviewed would be
10 included in this Appendix A or cited in the
11 declaration.

12 Q. Okay. And you also -- did you also
13 consider the art that was identified in reexams one
14 through five that are referenced in your January 2024
15 declaration?

16 MR. WICHMAN: Objection. Scope.

17 THE WITNESS: That would be the same
18 answer, in that I considered the prosecution history
19 that was in 1005 to 1009, and any documents that I
20 considered would be included in Appendix A or cited in
21 the declaration.

22 BY MR. SANTURRI:

23 Q. Okay. In the patent owner's response
24 that -- that you offered this declaration in and
25 response to, the patent owner made the argument that

1 the Hunt patent that we have in this case,
2 Exhibit 1023, was duplicative of other patents issued
3 to the -- the similar or the same inventors as are on
4 Exhibit 1023.

5 Did you make a --

6 MR. WICHMAN: Objection. Go ahead.

7 BY MR. SANTURRI:

8 Q. Did you consider whether, for example, the
9 Hunt patent was cumulative to Patent No. 6,611,740 as
10 argued by the petitioner in its -- I'm sorry -- as
11 argued by the patent owner in its response?

12 MR. WICHMAN: Objection. Beyond the scope.

13 THE WITNESS: I don't know that I followed
14 your question.

15 BY MR. SANTURRI:

16 Q. Sure. And let me back up and make sure
17 that we are on the same page.

18 So as part of your work for Geotab in this
19 case, you were provided the patent owner's response at
20 Paper 15; right?

21 A. Yes, I considered the patent owner
22 response, Paper 15, in this declaration.

23 Q. And you -- I assume -- and I assume you
24 were asked to provide opinions for Geotab to respond to
25 the patent -- or to reply to the patent owner's

1 response.

2 Is that an accurate way to describe what we
3 have in the January 2024 declaration?

4 A. In this declaration, I was asked to opine
5 on specific topics that were raised from the patent
6 owner response and the expert declaration and
7 deposition from Omega, specifically related to the
8 headings that are in the table of contents on pages i
9 and ii of the declaration.

10 Q. And is it fair to say that you did not
11 provide an opinion as to whether the '133 patent is
12 cumulative of other art considered during prosecution
13 of the '278 patent?

14 A. The opinions that I formed are included in
15 the declaration. And what I used to determine those
16 opinions are in the materials that I considered in
17 Appendix A and what's been cited in the declaration.

18 Q. Let me see if I can ask it a little
19 differently because maybe my question wasn't clear.

20 Is there -- do you offer any opinions in
21 Exhibit 1115 that address whether the Hunt patent, that
22 we have in Exhibit 1023, is cumulative to other patents
23 issued to co -- Hunt's co-inventors?

24 MR. WICHMAN: Objection. Calls for a legal
25 conclusion.

1 THE WITNESS: As I said, what I have in the
2 table of contents on pages i and ii are the topics that
3 I was asked to provide opinions on in response to the
4 patent owner's reply and the expert declaration and
5 deposition of Omega's expert.

6 BY MR. SANTURRI:

7 Q. Well, does that mean that if the table of
8 contents doesn't reference any opinion as to whether
9 Hunt is cumulative to other art considered during the
10 prosecutions of the '278 patent, you didn't offer that
11 opinion in the January 2024 declaration?

12 MR. WICHMAN: Objection. Calls for a legal
13 conclusion.

14 THE WITNESS: As I have said, the material
15 that I considered is included in Appendix A and is
16 cited through the declaration. And the opinions that I
17 provide are included in the declaration. And the
18 topics on which I was asked to opine are included in
19 the table of contents on page i and ii of the
20 declaration.

21 BY MR. SANTURRI:

22 Q. Perhaps we are missing each other here. I
23 understand that you provided a declaration in this
24 case, and that's Exhibit 1115; right?

25 A. Yes. That is the declaration that I

1 provided in January of 2024.

2 Q. Yes, sir. And you told me that any -- any
3 materials you considered are contained within Exhibit A
4 to your January 2024 declaration; right?

5 MR. WICHMAN: Objection. Mischaracterizes
6 the record.

7 THE WITNESS: The documents that I
8 considered are included in Appendix A, not Exhibit A,
9 of my declaration or cited in the declaration.

10 BY MR. SANTURRI:

11 Q. Okay. And does that mean it's fair to say
12 that if it's not -- if a document or an exhibit was not
13 either set forth in Appendix A or expressly cited in
14 the declaration itself that is not a -- that is not a
15 document that you -- that it was not considered as part
16 of your opinions in your January 2024 declaration?

17 MR. WICHMAN: Objection. Form.

18 THE WITNESS: Any document that was not
19 included in Appendix A of the declaration or cited in
20 the declaration did not weigh into the opinions that I
21 provided in the declaration.

22 BY MR. SANTURRI:

23 Q. Okay. And I don't see any reference in
24 your declaration to any opinion from you, one way or
25 the other, as to whether the 1023 -- Exhibit 1023 to

1 Hunt was cumulative of other patents issued to the same
2 inventor.

3 Is that -- am I missing it, or is it in
4 there somewhere?

5 MR. WICHMAN: Objection. Calls for a legal
6 conclusion. Compound.

7 THE WITNESS: I -- I don't believe that I
8 used the word "cumulative" in this. And I don't know
9 if there's some legal implication to that term, but I
10 will repeat, as I've said earlier, the opinions I
11 provided are based on the topics that I was asked to
12 opine in the table of contents as well as the -- and
13 the material I considered is what was in Appendix A and
14 cited through my declaration.

15 BY MR. SANTURRI:

16 Q. According to your Appendix A, you
17 considered the prosecution history of reexam four, at
18 least as of the date that Exhibit 1008 was submitted to
19 the IPR -- to the PTAB, I'm sorry; is that accurate?

20 A. I was provided with Exhibit 1008 by
21 Geotab's attorneys. I don't know about the rest of
22 what you said in that question.

23 Q. Okay. Let me try it differently.

24 Do you know the outcome of reexam four?

25 A. I don't recall, off the top of my head,

1 whether I know that.

2 Q. Okay. And the reason I ask is, because
3 after Exhibit 1008 was -- was submitted in this case
4 and received by you, there were subsequent proceedings
5 in that reexam four.

6 So do you know whether you have received
7 any supplemental information on reexam four after
8 receiving this Exhibit 1008?

9 MR. WICHMAN: Objection. Beyond the scope.

10 THE WITNESS: I don't recall whether I've
11 received anything further about reexam four. However,
12 the documents that I've included in Appendix A are the
13 ones that I used in forming my opinions that are in the
14 declaration.

15 BY MR. SANTURRI:

16 Q. So is it fair to say that if your
17 Appendix A doesn't make reference to the reexamination
18 certificate issued from reexam number four, that's not
19 a document you considered?

20 MR. WICHMAN: Objection. Asked and
21 answered.

22 THE WITNESS: As I said, the documents I
23 considered in forming my opinions are provided in
24 Appendix A or cited in my declaration.

25 ///

1 BY MR. SANTURRI:

2 Q. Okay. Do you -- do you know whether there
3 was a reexamination certificate recently issued from
4 reexam four?

5 MR. WICHMAN: Objection. Beyond the scope.
6 Asked and answered.

7 THE WITNESS: I don't know whether I know
8 that or if I've been provided with any other
9 information on that.

10 BY MR. SANTURRI:

11 Q. If you were provided information that a
12 panel of reexamination -- of reexamination examiners
13 found the '278 patent to be patentable over the
14 combination of the Hunt patent and the '885 patent,
15 would that have been relevant to the opinions you
16 provided in your January 2024 declaration?

17 MR. WICHMAN: Objection. Beyond the scope.
18 And I'm going to interject here.

19 So Counsel, we are getting near the point
20 where you are -- you're directing this examination on
21 topics that have nothing to do with the reply
22 declaration, which confines the scope of this
23 deposition.

24 We are -- I mean, if this is going to
25 continue, we are just going to seek an instruction to

1 limit the scope of the question. So, I mean, it's up
2 to you how you want to proceed. I'll just put that on
3 the record.

4 MR. SANTURRI: I don't agree with your
5 position on that. I'm entitled to ask this witness
6 about what he discussed in his declaration and whether
7 there are things that he chose not to include in this
8 declaration for whatever reason. I'm certainly
9 entitled to go there.

10 I haven't gone into any information or any
11 other testimony or documents that are not referenced in
12 his declaration. And I think that I'm entitled to
13 plenty of latitude to talk about anything that's
14 referenced in his declaration or reasons why he chose
15 not to put information in there.

16 So that's how -- that's how I'm moving
17 forward. And unless -- unless you can cite to some
18 rule or requirement that I'm -- that there is a
19 limitation and you can instruct him not to answer, then
20 I'm just going to keep on going.

21 MR. WICHMAN: I don't want to use up your
22 time here, but that is -- that is the guidance in the
23 Trial Practice Guide, where we will issue an
24 instruction not to answer and seek a motion to limit or
25 squash -- well, in this case, to limit the questioning

1 in the deposition.

2 This is our position. It's fair to ask him
3 about the subject matter in the reply declaration. I
4 think what you want to ask him is for the subject
5 matter in the reply declaration, whether his opinions
6 would have changed given the information you're
7 referencing, but that's not what you're asking. You're
8 asking him about things that were not part of the
9 subject matter in the reply declaration.

10 BY MR. SANTURRI:

11 Q. All right, sir. I don't remember what my
12 last question was. So let me see if we can start this
13 over again.

14 Is there a reason why you didn't consider
15 the findings in reexamination number four for purposes
16 of offering the opinions in the January 2024
17 declaration?

18 A. The documents that I considered in forming
19 my opinions are the ones listed in Appendix A and cited
20 in the declaration. And these are documents that I was
21 provided by -- well, the exhibits are documents that I
22 was provided by Geotab's attorneys.

23 Q. Yes, sir. That doesn't answer my question
24 at all. So let's see if you can focus on my question.

25 I think that you've told me ten times or

1 more that the materials you considered are the ones
2 in -- trying to get the language right for you,
3 Appendix A; right? Is that right?

4 A. Yes. I have told you that those are the
5 documents that I considered in forming the opinions
6 that I provided in the declaration.

7 Q. And what I'm asking is: First, I don't see
8 that you have cited to any document that -- I don't see
9 that you have cited to the Board's decision in
10 reexamination number four on your Appendix A.

11 Would you agree with me on that?

12 A. No, I do not believe that I relied upon the
13 decision from the patent board on reexamination four in
14 forming the opinions that I provided in this
15 declaration.

16 Q. Okay. And my question is: Is there a
17 reason why you did not consider the Board's decision in
18 reexamination number four as part of offering your
19 opinions on the invalidity of the '278 patent in your
20 January 2024 declaration?

21 MR. WICHMAN: Objection. Beyond the scope.
22 Mischaracterizes the record. Asked and answered.

23 THE WITNESS: I don't believe that there
24 was a reason to consider that or that perhaps I wasn't
25 provided that. I don't recall whether I even know what

1 the result of the reexamination four was. But as I've
2 said, all of the documents that I used to form my
3 opinions are cited in Appendix A or in the declaration.

4 BY MR. SANTURRI:

5 Q. Let me give you -- let me give you some
6 additional facts; all right?

7 I want you to assume that the panel and
8 reexamination number four considered whether the '278
9 patent was invalid as a result of a combination of Hunt
10 and the '885 patent; okay?

11 A. I don't know what you're asking. I heard
12 what you said. I don't know whether that's true or
13 not.

14 Q. You don't have to -- that's why I asked you
15 to please -- you're an expert. I asked you to assume
16 that the panel in reexamination number four considered
17 the obviousness of the '278 patent in view of Hunt and
18 the '885 patent; okay?

19 MR. WICHMAN: Objection. Beyond the scope.
20 Counsel, can we go off the record for a
21 minute.

22 MR. SANTURRI: Nope.

23 MR. WICHMAN: No. On the record, the
24 reason that this is beyond the scope is that I think
25 you will find that the reply declaration offers

1 opinions on specific issues and does not -- there's --
2 it's not offering opinions on invalidity. You're
3 asking for opinions on invalidity. Perhaps I'm wrong,
4 but that means that your questioning is beyond the
5 scope of this deposition.

6 MR. SANTURRI: Are you instructing him not
7 to answer?

8 MR. WICHMAN: That's next, if you keep this
9 up.

10 MR. SANTURRI: Well, then, he can answer my
11 question.

12 THE WITNESS: Can you repeat your question?
13 BY MR. SANTURRI:

14 Q. Probably not. Let me try a different one.
15 If you were told that the panel in
16 reexamination number four considered the combination of
17 Hunt and the '885 patent, and found the '278 to be
18 nonobvious, would that impact any of the opinions you
19 offered in your January 2024 declaration?

20 MR. WICHMAN: Objection. Scope.

21 THE WITNESS: I would need to review what
22 the reexamination board concluded before I could answer
23 that question.

24 BY MR. SANTURRI:

25 Q. And you don't have any recollection of

1 having done that at the time of your January 2024
2 declaration?

3 MR. WICHMAN: Objection. Asked and
4 answered.

5 THE WITNESS: I don't recall whether I did
6 review that, but regardless, it did not aid in forming
7 any of the opinions that I provided in this
8 declaration.

9 BY MR. SANTURRI:

10 Q. I notice in your Appendix A you also don't
11 reference Exhibit 2014, the Declaration of Christian
12 Tregillis; is that correct?

13 A. Appendix A does not have Exhibit 2014 as
14 one of the documents that I considered in forming my
15 opinions for this declaration.

16 Q. And so based on the prior testimony, if
17 Exhibit 2014 is not listed in Appendix A, you did not
18 consider that document for purposes of offering the
19 opinions in the January 2024 declaration; right?

20 A. As I stated, the materials I considered are
21 included in Appendix A or cited in the declaration.

22 Q. Okay. And you didn't cite Exhibit 2014 in
23 the declaration itself; right?

24 A. I believe I -- I'm sorry. I don't believe
25 I cited Exhibit 2014 in this declaration.

1 Q. Okay. And is it accurate to say that, for
2 purposes of preparing your January 2024 declaration,
3 that you didn't consider the licensing history and
4 royalty evidence provided by Mr. Tregillis in his
5 2014 -- in Exhibit 2014?

6 A. As I said, I don't believe I considered
7 Exhibit 2014 -- I'm sorry. Let me take that back.

8 I did not consider Exhibit 2014 in forming
9 the opinions in this, because I did not cite
10 Exhibit 2014, and it's not included in Appendix A.

11 Q. And so you didn't -- and you just -- just
12 to confirm, then, you didn't offer any opinions in
13 response to opinions offered by Mr. Tregillis in your
14 January 2024 declaration?

15 A. If the opinions provided by that person
16 were in Exhibit 2014, then I did not consider the
17 opinions that were provided in Exhibit 2014 in forming
18 my opinions in this declaration.

19 Q. And as I -- as a follow on to that, if you
20 didn't consider the opinions offered in Exhibit 2014,
21 you were not -- you did not intend for your
22 declaration, your January 2024 declaration, to provide
23 opinions in response; is that right?

24 MR. WICHMAN: Objection. Form. Asked and
25 answered.

1 THE WITNESS: The opinions that I provided
2 in this declaration were based on the topics that are
3 included in the table of contents that Geotab's
4 attorneys asked me to opine on, and the material that I
5 considered in forming my opinion are included in
6 Appendix A or cited throughout the declaration.

7 BY MR. SANTURRI:

8 Q. Well, you were very definitive a moment ago
9 that you did not consider Exhibit 2014.

10 And so it is fair to say that you did not
11 offer any testimony, in your January 2024 declaration,
12 in response to Exhibit 2014; right?

13 A. I did not consider Exhibit 2014 in forming
14 any of the opinions that I provided in my declaration.

15 Q. Yes, sir. And my question was: If you
16 didn't consider any opinions offered in Exhibit 2014,
17 none of the opinions you offered in your January 2024
18 declaration were intended to address the arguments made
19 and opinions offered in Exhibit 2014; correct?

20 MR. WICHMAN: Objection. Form. Calls for
21 speculation.

22 THE WITNESS: I don't know whether that's
23 true or not, as I was provided a list of topics by
24 Geotab's attorneys that they wanted me to opine on.

25 ///

1 BY MR. SANTURRI:

2 Q. So when you sat down with the patent owner
3 response at Paper 15, did you -- did you make a list of
4 all the issues that -- that -- that you had an opinion
5 on or that you thought you could provide an opinion on
6 in response?

7 MR. WICHMAN: Objection. Form.

8 THE WITNESS: The Geotab's attorneys
9 provided me with the topics on which they wanted me to
10 provide an opinion.

11 BY MR. SANTURRI:

12 Q. Yes, sir. You told me that. I'm asking
13 you, when you sat down -- I mean, you did sit down and
14 review the patent owner response; right?

15 A. Yes, I reviewed the patent owner response.

16 Q. Yes, sir. And when you reviewed it, did
17 you make your own list of issues or arguments that you
18 wanted to offer opinions on in your responsive
19 declaration from January of 2024?

20 MR. WICHMAN: Objection. Privileged work
21 product. Drafts are not discoverable. I'm actually
22 going to instruct you not to answer, Dr. Miller.

23 BY MR. SANTURRI:

24 Q. Were you -- is the scope of your analysis
25 limited by Counsel in the context of offering your

1 January 2024 declaration?

2 MR. WICHMAN: Objection. Form.

3 THE WITNESS: No. I was not limited, but I
4 was asked to opine on specific items.

5 BY MR. SANTURRI:

6 Q. Yes, sir. Was there -- and those were
7 the -- only the items identified by Geotab were the
8 topics that you addressed in your January 2024
9 declaration?

10 A. I don't recall whether that's true or not.

11 Q. In forming the opinions offered in your
12 January 2024 declaration, do you recall considering
13 evidence of Omega's licensing and royalties?

14 MR. WICHMAN: Objection. Scope.
15 Relevance.

16 THE WITNESS: I'm looking in paragraph 19
17 of my declaration, where this is concerning the plug-in
18 solutions that were known. And I have four bullet
19 points there that discuss customer need, testimony from
20 Omega's expert, some deposition testimony from
21 third-party defendants in a separate litigation
22 involving Omega and CalAmp, and another citation in the
23 same deposition as the fourth bullet point.

24 BY MR. SANTURRI:

25 Q. Okay. So you -- you -- it looks like, from

1 paragraph 19, you understood that Omega made the
2 argument that Claim 1 was nonobviousness as a result of
3 customer need.

4 That's your first bullet point essentially?

5 A. That's what I said in paragraph 19, and I
6 was providing the four bullet points as to the
7 arguments Omega made to try to say that Claim 1 of the
8 patent was nonobvious because it responded to customer
9 need.

10 Q. Right. And I'm just -- I'll cover -- it's
11 easy if we cover one bullet point at a time.

12 So one of the arguments -- one of Omega's
13 arguments that you considered was evidence of customer
14 need; is that right?

15 MR. WICHMAN: Objection. Form.
16 Mischaracterizes the evidence.

17 THE WITNESS: The patent owner response
18 stated that there was customer need for a plug-in
19 solution.

20 BY MR. SANTURRI:

21 Q. And did you undertake any investigation to
22 determine whether that was true or not?

23 MR. WICHMAN: Objection. Form.

24 THE WITNESS: That's what I'm explaining in
25 this Section 4 about plug-in solutions. Paragraph 19

1 cites in four bullet points what Omega included to try
2 to make that argument. And then I continued in that
3 section to explain that plug-in solutions were already
4 known prior to the date of the patent.

5 BY MR. SANTURRI:

6 Q. I think my question was different.

7 My question was simply: Did you do
8 anything to investigate whether there was -- that
9 there's -- there was evidence of customer need for
10 Omega's technology as they asserted?

11 MR. WICHMAN: Objection. Form.

12 THE WITNESS: I don't recall whether I did,
13 as that wasn't the question that I was opining on.

14 BY MR. SANTURRI:

15 Q. Do you recall whether you investigated
16 whether a simple plug-in solution was attractive to
17 customers of CalAmp?

18 MR. WICHMAN: Objection. Asked and
19 answered.

20 THE WITNESS: That's the quote that I
21 provided from the deposition testimony of third-party
22 defendant employees in the litigation involving Omega
23 and CalAmp.

24 Again, I wasn't asked to opine on whether
25 there was customer need, but rather that -- whether

1 plug-in solutions were known or not at the time of the
2 patent.

3 BY MR. SANTURRI:

4 Q. In paragraph 20, you state that you aren't
5 aware of any claim limitation that recites a plug-in
6 solution.

7 Do you see that?

8 A. Yes, that's the first sentence of
9 paragraph 20.

10 Q. Yes, sir.

11 Do you -- do you agree with me that the
12 claims of the '278 patent do recite a device that could
13 be plugged in to access the OBD-II?

14 MR. WICHMAN: Objection. Form. Calls for
15 a legal conclusion.

16 THE WITNESS: Can you direct me to the
17 claim in the '278 patent to which you're referring?

18 BY MR. SANTURRI:

19 Q. I think it's all of them, but let me start
20 with -- and you have these in -- you have the patent
21 itself, but you also have them in Appendix B of your --
22 of your declaration.

23 So if you take a look at -- you have a
24 reference in claim 1.d, that claim element.

25 Do you see that?

1 A. Yes, I see 1.d.

2 Q. And would you agree with me, that a
3 "multi-vehicle compatible controller to be coupled to
4 the vehicle data bus for communication thereover,"
5 could be done using an OBD-II port?

6 A. I agree that connecting to the vehicle data
7 bus for communication could occur over OBD-II.

8 Q. And you understand that it was -- it was
9 common -- a common way to access the OBD-II data bus in
10 a vehicle is through the under-dash port; right?

11 MR. WICHMAN: Objection. Form.

12 THE WITNESS: One way to access the vehicle
13 data bus and vehicles, at least from year 1996 and
14 newer, would be connecting to the OBD port of the
15 vehicle which is typically underneath the dashboard.

16 BY MR. SANTURRI:

17 Q. And in order to do that, you can plug a --
18 you can plug a controller into that port; right?

19 A. Plugging a device into that port is one way
20 to access the vehicle data bus.

21 Q. Okay. So, then, would you agree with me
22 that reciting a multi-vehicle controller that is
23 connected to the vehicle data bus does, in fact, recite
24 a device that can be plugged in to the OBD-II port?

25 MR. WICHMAN: Objection. Form. Calls for

1 a legal conclusion.

2 THE WITNESS: As I said, I believe that a
3 device that connects to the OBD-II port would be able
4 to access the vehicle data bus.

5 1.d doesn't specifically say a "plug-in
6 device," which is what I was getting at in Section 4 of
7 my declaration. There are other ways to access a
8 vehicle data bus rather than plugging a device into the
9 OBD-II port.

10 BY MR. SANTURRI:

11 Q. There may be other -- there may be other
12 ways to access a vehicle's data bus, but one way to
13 couple a device to the vehicle's data bus is by
14 plugging it into the OBD-II port; correct?

15 A. Well, as I already said, plugging a device
16 into an OBD-II port of a vehicle would allow that
17 device to access the vehicle data bus.

18 Q. If you were told that Mr. Tregillis's
19 declaration, Exhibit 2014, provided opinion and
20 evidence of secondary considerations of nonobviousness,
21 would that have changed any of the opinions you
22 expressed in your January 2024 declaration?

23 MR. WICHMAN: Objection. Scope.

24 THE WITNESS: I would have to review that
25 declaration before I could accurately answer that

1 question.

2 BY MR. SANTURRI:

3 Q. And we already confirmed, I think, that you
4 did not review Exhibit 2014; right? Or you didn't
5 consider it, rather?

6 A. Exhibit 2014 is not one that I considered
7 in forming the opinions that I provide in my
8 declaration.

9 MR. SANTURRI: All right. We have been
10 going about an hour. Why don't we go ahead and take a
11 ten-minute break, if that works for you.

12 THE WITNESS: Okay.

13 (Recess was taken.)

14 BY MR. SANTURRI:

15 Q. All right. Sir, if I could have you turn
16 your attention to paragraph 14 of your declaration.

17 A. Okay.

18 Q. Okay. And you state that, "Omega argues
19 that a 'person of ordinary skill in the art' would not
20 have combined Hunt's GPS with Flick-885's controller."

21 And then you continue on there, but
22 ultimately, you say you disagree with Omega's argument;
23 is that right?

24 A. In paragraph 14, I do recite one of Omega's
25 arguments for combining Hunt's GPS and Flick-885's

1 controller. And I disagree with their argument.

2 Q. Okay. And stepping back for a minute, do
3 you -- do you know what -- have some understanding of
4 what "secondary considerations of nonobviousness" are?

5 MR. WICHMAN: Objection. Scope.

6 THE WITNESS: I believe that I have been
7 told of second considerations in the past, but by no
8 means do I know everything about secondary
9 considerations.

10 BY MR. SANTURRI:

11 Q. Do you have any understanding as to
12 whether, when you are arguing that one of skill in the
13 art -- it would have been obvious to one of skill in
14 the art to combine the two references, whether there is
15 any obligation to consider secondary considerations?

16 MR. WICHMAN: Objection. Scope.

17 THE WITNESS: I don't recall whether there
18 is.

19 BY MR. SANTURRI:

20 Q. Is it fair to say that -- for purposes of
21 your -- your opinion here, in paragraph 14, that you
22 disagree with Omega's contention that a person of
23 ordinary skill in the art would have combined Hunt and
24 the Flick-885 patent, you did not consider any evidence
25 of secondary considerations?

1 MR. WICHMAN: Objection. Form. Scope.
2 Mischaracterizes the evidence.

3 THE WITNESS: I don't believe that that
4 would be an accurate understanding of what I had said
5 here.

6 So in this paragraph, I said that Omega
7 argues that a person of ordinary skill in the art would
8 not have combined Hunt's GPS with Flick-885 controller,
9 because Hunt allegedly -- and then citing from the
10 patent owner response -- does not address ongoing
11 compatibility with different vehicles, since Hunt
12 discloses protocols modules being embodied in an ASIC.
13 I disagree with the argument that Omega has made there.
14 BY MR. SANTURRI:

15 Q. Let me break that up.

16 Do you disagree that Hunt discloses
17 protocol modules being embodied in an ASIC?

18 MR. WICHMAN: Objection. Form.

19 THE WITNESS: No, I believe that Hunt does
20 disclose protocols being included in an ASIC.

21 BY MR. SANTURRI:

22 Q. Okay. Do you -- and I'm just trying to
23 figure out what -- when you say you disagree, I'm just
24 trying to make sure I understand that opinion.

25 Do you -- strike that.

1 You disagree that a person of ordinary
2 skill in the art would not have combined Hunt's GPS
3 with Flick-885's controller; is that correct?

4 MR. WICHMAN: Objection. Form.

5 THE WITNESS: I disagree that a person of
6 ordinary skill in the art would not have combined
7 Hunt's GPS with Flick-885's controller, or to say it
8 another way without the double negative, I believe that
9 a person of ordinary skill in the art would have
10 combined Hunt's GPS with Flick-885's controller.

11 BY MR. SANTURRI:

12 Q. And that's your opinion, that one of skill
13 in the art, would have combined Hunt's GPS with
14 Flick-885's controller?

15 A. I believe that a person of ordinary skill
16 in the art would have combined Hunt's GPS and
17 Flick-885's controller. I disagree with Omega's
18 argument that a person of ordinary skill in the art
19 would not have combined them, because of the reason I
20 stated in paragraph 14.

21 Q. Okay. In reaching the conclusion of the
22 opinion, that a person of ordinary skill in the art
23 would have combined Hunt's GPS with Flick-885
24 controller, did you consider any secondary
25 considerations of nonobviousness?

1 MR. WICHMAN: Objection. Form.

2 THE WITNESS: I feel I would need to review
3 secondary considerations before accurately answering
4 that question.

5 BY MR. SANTURRI:

6 Q. Well, do you make any reference to
7 secondary considerations in your January 2024
8 declaration?

9 MR. WICHMAN: Objection. Form. The
10 document speaks for itself.

11 THE WITNESS: Again, I would need to review
12 what's meant by "secondary considerations" and
13 everything that is encompassed in that.

14 I don't use the term "secondary
15 considerations" in my declaration. But I don't know
16 whether I have considered items that would be secondary
17 considerations and included that, just not without --
18 just not with that phrase.

19 BY MR. SANTURRI:

20 Q. Okay. Let me try it this way, then.

21 In reaching your opinion that a person of
22 ordinary skill in the art would have combined Hunt's
23 GPS with Flick-885's controller, did you consider
24 evidence of copying of Omega's technology?

25 MR. WICHMAN: Objection. Scope.

1 THE WITNESS: I don't believe that I
2 referenced anything about copying technology in the
3 declaration.

4 BY MR. SANTURRI:

5 Q. Okay. In reaching your opinion that a
6 person of ordinary skill in the art would have combined
7 Hunt's GPS with Flick-885's controller, did you
8 consider evidence of commercial success of products
9 that practice the '278 patent?

10 MR. WICHMAN: Objection. Form. Beyond the
11 scope.

12 THE WITNESS: This Section 3 of my
13 declaration isn't specifically saying that a person of
14 ordinary skill in the art would combine Hunt and
15 Flick-885.

16 I was disagreeing with Omega's argument
17 that a person of ordinary skill in the art would not
18 have combined those two references because -- and this
19 is Omega's argument -- Hunt allegedly does not address
20 ongoing compatibility with different vehicles, since
21 Hunt discloses protocol modules being embodied in an
22 ASIC.

23 BY MR. SANTURRI:

24 Q. Sir, a few minutes ago, you said, when
25 framed -- when I framed my question with what you said

1 was a double negative, you said, affirmatively, that it
2 was your opinion that a person of skill in the art
3 would have combined Hunt's GPS with Flick-885's
4 controller.

5 Is that still your opinion now?

6 A. Yes, I believe that that is true.

7 What I was saying is that, in my
8 declaration, I was disagreeing with Omega's argument
9 against combining Hunt's GPS and Flick-885's
10 controller.

11 Q. Yes, sir. But I'm trying to make sure that
12 I understand when you -- when you tell me, that you
13 have reached the conclusion that a person of ordinary
14 skill in the art would have combined Hunt's GPS with
15 Flick-885's controller, I'm just trying to make sure I
16 understand what evidence and information you considered
17 in offering that opinion. And so --

18 MR. WICHMAN: Objection. Beyond the scope.
19 I think if you are going to keep this up, I'm going to
20 instruct Dr. Miller not to answer. And I think we need
21 to call the Board, and I am going to move to limit the
22 scope of the questioning in this deposition.

23 MR. SANTURRI: Why don't we do that, then,
24 because I'm asking him about a specific statement in
25 his declaration from January 2024. And if you're

1 telling me that somehow that's beyond the scope of this
2 deposition, I would love to hear the Board's opinion on
3 that.

4 MR. WICHMAN: Well, you know that's not
5 true. The specific statement, as Dr. Miller has
6 repeatedly pointed out at paragraph 14, is responding
7 to a very specific argument in the POR at 57.

8 You are asking him a general question about
9 his invalidity opinions, which are presented in his
10 petition declaration. The one that you did not depose
11 him on, and the one that you are now time-barred from
12 deposing him on. So that is a discussion that we will
13 have with the Board.

14 Should we have the court reporter on the
15 call?

16 MR. SANTURRI: Sure. That sounds great.
17 Let's figure out how to merge a call here. I think
18 what we are going to have to do is -- there is not a
19 call feature in this Zoom call. So we are going to
20 have to stop -- in accordance with the Trial Practice
21 Guide guidance, we are going to pause the deposition
22 until we get a clarification from the Board. And that
23 is in the Trial Practice Guide -- we saw in the Trial
24 Practice Guide at page 129. This is point four in
25 Appendix D under the testimony guidance.

1 So what I will do is, we will stop this.
2 And I will call the Board and, either, then, link you
3 in -- I'm not sure if I can link the reporter in. If
4 that doesn't work, we will have to send an email to the
5 Board.

6 All right. All right. Let's try the phone
7 call.

8 COURT REPORTER: Do you want me to go off
9 the record?

10 MR. WICHMAN: Yes, go off the record until
11 we can get somebody on the line.

12 MR. SANTURRI: Yes.

13 (Recess was taken.)

14 BY MR. SANTURRI:

15 Q. All right. Dr. Miller, if I could have you
16 turn your attention to Exhibit 1023, the Hunt patent.

17 A. Okay.

18 Q. And I think before we -- before we broke a
19 few minutes ago, you -- you confirmed that you agreed
20 that Hunt discloses protocol modules being embodied in
21 an ASIC.

22 Did I remember that right?

23 A. Yes, I believe I -- that's what I said.

24 Q. Okay. And if I can have you turn your
25 attention to paragraph 5 of the Hunt patent,

1 Exhibit 1024.

2 A. I'm sorry. If you could direct me more.

3 Did you say paragraph 5?

4 Q. I'm sorry, I probably did. Column 5.

5 A. Okay.

6 Q. And if you can head down towards the end of
7 that column, it's probably starting at line 55 or so.

8 A. Okay.

9 Q. And my question for you is: With respect
10 to the vehicle-communication circuit in Hunt, is there
11 any -- other than the use of an ASIC for that
12 vehicle-communication circuit, is there any other
13 disclosure of Hunt that some other type of circuitry
14 could be used, other than an ASIC, for the
15 vehicle-communication circuit 25?

16 A. Can you ask your question again for me?

17 Q. I'm not sure I can, but I suspect our court
18 reporter can repeat it for us.

19 (Record read.)

20 BY MR. SANTURRI:

21 Q. Maybe I should shorten that, so that's a
22 little -- there was too much there.

23 So is there any disclosure of using
24 circuitry, other than an ASIC, for
25 vehicle-communication circuit 25?

1 A. Yes, I believe there is.

2 Q. And can you give me a citation for it?

3 A. Yes, I found one. I don't know that this
4 is the only one. I would have to review the entire
5 specification, but looking in column 9 starting at
6 line 41, Hunt states, "These protocols can be
7 implemented using integrated silicon-based solutions
8 (e.g. a custom ASIC), or using transistors or
9 conventional circuit elements."

10 And as I said, there may be other
11 disclosures as well.

12 Q. Is a custom ASIC reprogrammable once it's
13 been manufactured?

14 A. I don't believe that it's able to be.

15 Q. And this reference is transistors -- using
16 transistors, there isn't any way, once the transistors
17 are soldered to the board, that they can be
18 reprogrammed or updated with firmware or software, is
19 there?

20 A. I disagree with that.

21 Q. Okay.

22 A. A computer is -- the hardware of a computer
23 is made up of transistors and other circuit elements,
24 yet we can change the programs that are running on top
25 of them.

1 Q. And let me make sure that I understand
2 this, so the -- if you had a circuit that's
3 manufactured just with transistors, is there any
4 firmware or software stored in transistors?

5 A. There is going to have to be. The data is
6 going to have to be stored somewhere. Like I said, a
7 computer consists of transistors and other circuit
8 components, yet we can still run programs, and I can
9 change the program that's running on them.

10 Q. Well, you said "transistors and other
11 circuit components."

12 What are the circuit components that would
13 be necessary in order to have a -- to have a -- to have
14 a circuit that can be reprogrammed?

15 A. Well, using the language that's in the Hunt
16 patent, it says "Transistors are conventional circuit
17 elements."

18 "Conventional circuit elements" would be
19 differing types of gates, so "and gates," "or gates,"
20 "nor gates," "not gates," and so on. It also would
21 consist of inductors, capacitors, where we can store
22 charges. This is how we can store data -- one way that
23 we can store data across different media, and those are
24 going to be conventional circuit elements.

25 Q. So when you're -- when you're saying that

1 you could use transistors or other conventional circuit
2 elements in a format that could be reprogrammed after
3 manufacture, we -- is that really talking about
4 microprocessors?

5 A. Microprocessor would be one arrangement of
6 transistors or conventional circuit elements that would
7 allow reprogramming. There are others, as well.

8 Q. Now, this particular section of -- Hunt
9 doesn't suggest that microprocessors are used in place
10 of that ASIC vehicle-communication circuit, does it?

11 A. I think clarifying also what Hunt means by
12 the -- the term "ASIC," so, for example, claim 63 says,
13 "A single ASIC comprising, A, a microprocessor."

14 So Hunt's disclosure of an ASIC includes a
15 microprocessor.

16 Q. In your declaration, I'm looking at
17 paragraph 24, you say -- first, you say that Omega
18 argues there is no need to download instructions to
19 Hunt's controller.

20 And you state, "I disagree because Hunt
21 expressly describes installing firmware and/or software
22 on its appliance by wireless download after
23 manufacture."

24 Do you see that?

25 A. Yes, I see that in paragraph 24.

1 Q. Yes, sir. And that you cited there to
2 column 11:5-32, so if you could turn to that part.

3 Are you there?

4 A. Yes, I'm there.

5 Q. Now, this -- this column 11 seems to
6 provide kind of a general discussion of programmable
7 equipment, such as computers and computer systems.

8 None of this discussion in paragraph 11 is
9 tied to any numbered elements within the detailed
10 description, is it?

11 MR. WICHMAN: Objection. Form.

12 THE WITNESS: In column 11, for lines 5
13 through 32, there is no reference to a number of a
14 component in any of the figures, if that's what you're
15 asking.

16 BY MR. SANTURRI:

17 Q. Yeah, that is what I'm asking. This is
18 just sort of a generic -- wouldn't you view this column
19 11 kind of a generic discussion of computer systems in
20 general?

21 MR. WICHMAN: Objection. Form.

22 THE WITNESS: I don't know that I would
23 characterize it that way.

24 BY MR. SANTURRI:

25 Q. Turning back to -- going back to

1 paragraph 25, actually, in your declaration -- we will
2 start with 24.

3 In 24, you address Omega's argument that
4 there is no need to download instructions to Hunt's
5 controller.

6 Was it -- in terms of your opinion that
7 firmware and software are wirelessly downloaded after
8 manufacture and Hunt, do you -- are you equating
9 firmware and/or software with enabling data, as
10 described in the '278 patent?

11 MR. WICHMAN: Objection. Form. Calls for
12 a legal conclusion.

13 THE WITNESS: In this paragraph, I didn't
14 say anything about enabling data. And just to clarify,
15 to make sure I understood correctly, that paragraph 24
16 is addressing Omega's argument, where they stated there
17 is no need to download instruction to Hunt's
18 controller.

19 I believe that you said "Hunt's" argument.
20 I just want to clarify that this is "Omega's" argument.
21 BY MR. SANTURRI:

22 Q. Okay. Well, you understand, in the context
23 of Omega's argument, there is no need to download
24 instructions, relates to whether Hunt discloses
25 downloading enabling data.

1 Is that your understanding of this --
2 Omega's argument?

3 MR. WICHMAN: Objection. Scope. Form.

4 THE WITNESS: I think that I would need to
5 refer to the patent owner response in 18 to 19, as I
6 cited right there, to be able to answer that question.

7 BY MR. SANTURRI:

8 Q. Okay. If you can go back to Hunt and, in
9 particular, in this -- I'm going to have you steer back
10 to paragraph 6. I'm sorry. Column 6.

11 A. Okay.

12 Q. And in column 6 -- I'm going to get the
13 line number, so you can -- on column 6 line -- starting
14 with about 35, you can -- I think this is where you --
15 this is part of the spec you reference somewhere in
16 your declaration about the processor 27 storing
17 firmware.

18 Would you agree with me that the -- this
19 portion of the Hunt disclosure and the firmware that's
20 being referenced by Hunt, all of that relates to the
21 formatting of data that's being transmitted out by the
22 wireless modem in Hunt?

23 MR. WICHMAN: Objection. Beyond the scope.
24 Relevance.

25 THE WITNESS: The paragraph in column 6

1 that starts on line 35 and goes to 50 is discussing
2 firmware on the microprocessor 27, that's formatting
3 diagnostic and location-based data and transmitting
4 those through a universal modem adaptor to a wireless
5 modem.

6 BY MR. SANTURRI:

7 Q. Is that discussion the same firmware and
8 software that you say Hunt expressly describes in
9 paragraph 24 of your declaration?

10 A. Well, I reference the different column and
11 line numbers in Hunt in paragraph 24, than column 6,
12 line 35 through 50. So it seems that it may be
13 referring to something different.

14 Q. Well, that's part of why I'm asking the
15 question. Column 11, 5 through 32, other than just
16 referencing -- hold on a second.

17 So in column 11, where you -- the section
18 that you cite to that says, "Hunt expressly describes
19 installing firmware and/or software on its appliance by
20 wireless download after manufacture."

21 Do you see that?

22 THE WITNESS: You're referring to my
23 paragraph 24?

24 BY MR. SANTURRI:

25 Q. Yes, sir.

1 A. Yes, I see that.

2 Q. So I don't see any reference to firmware in
3 column 11 where you've cited. So I'm just trying to
4 figure out where you get that Hunt expressly describes
5 installing firmware by wireless download after
6 manufacture, if not in column 11.

7 A. Firmware is a type of software that is
8 running directly on top of hardware. And column 11,
9 from lines 5 through 32, and even further beyond that,
10 Hunt is referring to a computer.

11 So in the first sentence on line 5
12 through 7 of column 11, Hunt says, "The processes
13 associated with some of the present embodiments may be
14 executed by programmable equipment, such as computers."

15 On line 34 of that same column, Hunt
16 states, "A 'computer' or a 'computer system' may be,
17 for example, a wireless or a wireline variety of a
18 microcomputer, minicomputer, laptop, personal data
19 assistant (PDA), wireless e-mail device
20 (e.g. BlackBerry), cellular phone, pager, processor, or
21 any other programmable device, which devices may be
22 capable of configuration for transmitting and receiving
23 data over a network."

24 There is both firmware, as I said, which is
25 a type of software, as well as software that is not

1 firmware, that will run on computers.

2 So what Hunt seems to have disclosed here
3 is that the embodiments from this patent could be
4 implemented using a computer, which would involve
5 firmware and software, as well as the hardware that
6 makes up a computer, consisting of, as I just read,
7 lines 35 through 38, a number of different devices.

8 Q. Yes, sir. And in the -- but in the context
9 of the specification, where Hunt is specifically
10 referring to how firmware or software is used, would
11 you agree with me that all of those discussions relate
12 to formatting data for transmission out of the modem?

13 MR. WICHMAN: Objection. Form.

14 THE WITNESS: No, I don't agree with that
15 statement.

16 BY MR. SANTURRI:

17 Q. Okay. Can you point me to a place in Hunt
18 that discusses firmware and software in some other
19 context than formatting the data being transmitted out
20 of a device in Hunt?

21 MR. WICHMAN: Objection. Beyond the scope.

22 THE WITNESS: I think an easy example would
23 be in column 11, what I just read, that this is Hunt
24 disclosing firmware and software that can be used, as
25 it says on line 5, "The processes associated with some

1 of the present embodiments may be executed by
2 programmable equipment, such as computers."

3 And as I just explained, a computer, which
4 he's provided examples of on lines 34 through 38 of
5 column 11, would include both firmware and hardware to
6 enable the execution.

7 BY MR. SANTURRI:

8 Q. In that same paragraph you say, "Firmware
9 and/or software are 'instructions' for microprocessor
10 27"; right?

11 A. Yes, the last sentence of paragraph 24.

12 Q. And in the context of that statement
13 "firmware and/or software are 'instructions' for
14 microprocessor 27," is there anywhere in Hunt that
15 specifically discloses using firmware and/or software
16 for microprocessor 27 in a way, other than to format
17 data for transmission out of the wireless modem?

18 MR. WICHMAN: Objection. Scope.

19 THE WITNESS: Well, I believe that I
20 explained why that's the case in paragraphs 25, maybe,
21 through 31 for this entire section, Section 5 of my
22 declaration.

23 BY MR. SANTURRI:

24 Q. Yes, sir. And throughout the entirety of
25 Section 5 of your declaration, you don't identify any

1 purpose for the firmware or software on microprocessor
2 27, other than formatting data for transmission out of
3 the wireless modem; right?

4 MR. WICHMAN: Objection. Beyond the scope.

5 THE WITNESS: No, that's not true.

6 BY MR. SANTURRI:

7 Q. Okay. What paragraph are you looking at?

8 A. The last sentence of paragraph 25, I state,
9 "POSAs would have understood that Hunt's description of
10 post-manufacture installation included wireless
11 downloading firmware and/or software to Hunt's MVCC and
12 installing it for use with microprocessor 27."

13 Q. Yes, sir. And my question is: When you
14 say "installing it for use with microprocessor 27," is
15 there any specific use described by Hunt for such
16 firmware and/or software beyond transmission of --
17 formatting data for transmission from the wireless
18 modem in Hunt?

19 MR. WICHMAN: Objection. Beyond the scope.

20 THE WITNESS: Yes, I believe that there is.
21 So even back in paragraph 24, I state, there were
22 several reasons, even after initial installation, to
23 update that firmware and/or software.

24 BY MR. SANTURRI:

25 Q. And what's your source for that?

1 A. POSAs would have understood that there is a
2 reason to update firmware and software to correct bugs,
3 which I address in paragraphs 26 through 29. In
4 addition, paragraphs 30 through 31, I discuss how even
5 Omega agrees that there would be a reason to update
6 Hunt's vehicle-communication circuit. And I have some
7 citations in those paragraphs to support that.

8 Q. Now, the -- the language you're quoting
9 from -- Omega's POR is talking about actually
10 physically replacing the ASIC with a different ASIC;
11 right?

12 MR. WICHMAN: Objection. Form.

13 THE WITNESS: In paragraph 30, the
14 reference to the patent owner response is addressing
15 replacing the ASIC with a different ASIC. However,
16 paragraph 31 goes further, that, even after updating an
17 ASIC, there would have been also a need to update
18 firmware or software in Hunt's microprocessor, which
19 could have been done through wireless download just
20 like the install post-manufacture installation.

21 BY MR. SANTURRI:

22 Q. Is there anything in Hunt you can point to
23 to support that?

24 A. I would have to review the specification to
25 see if there's something that supports that, but a POSA

1 would understand that updating firmware and software is
2 necessary, if you were to change hardware or to fix
3 bugs, as what I've stated in Section 5 of my
4 declaration.

5 Q. There's nothing in Hunt that talks about
6 bug fixes, is there?

7 A. In paragraph 10 -- I'm sorry, in column 10
8 starting at line 55, Hunt says, "It will be apparent to
9 one of ordinary skill in the art that some of the
10 embodiments as described hereinabove may be implemented
11 in many different embodiments of software, firmware,
12 and hardware in the entities illustrated in the
13 figures."

14 He continues to say, "It is clearly
15 understood that artisans of ordinary skill would be
16 able to design software and control hardware to
17 implement the embodiments of the present invention,
18 based on the description herein, with only a reasonable
19 effort and without undue experimentation."

20 What I feel he's saying here is that the
21 development of the software is something that a person
22 of ordinary skill in the art would understand how to
23 do, based on the description that he has provided in
24 the patent. And a person of ordinary skill in the art
25 would understand that software and firmware will have

1 bugs that need to be updated. And one way to go about
2 updating them would be to have a wireless download as
3 opposed to physical access to the device.

4 Now to clarify, physical access to the
5 device could also be used for making updates, but
6 having wireless capabilities provides a more convenient
7 approach for making the updates of software.

8 BY MR. SANTURRI:

9 Q. Does Hunt show in any of the figures a
10 mechanism for physically accessing the device and
11 installing updates?

12 A. Well, as I stated in paragraph 30, I
13 believe that it would be obvious to a person of
14 ordinary skill in the art to replace Hunt's ASIC with a
15 new ASIC to support different communication protocols.
16 And that's what I cited from the patent owner response,
17 where Omega stated, even if a POSA would recognize that
18 it may be beneficial to add new protocols in Hunt, at
19 the time of the invention, the POSA would likely
20 replace the ASIC with a different ASIC similar to
21 Hunt's disclosure replacing one modem for another.

22 So I believe that -- I believe that a POSA
23 would have considered obvious to replace the ASIC, and
24 it appears as if Omega agrees with that.

25 Q. I'm not sure if that answers my question

1 about physically -- for example, in order to physically
2 download these bug fixes you're talking about, is
3 there -- is there anything shown in the figures in Hunt
4 that would allow somebody to physically connect to the
5 device in Hunt and update software?

6 A. I think the specification in Hunt is where
7 it's explained about what's in the figures. So a POSA
8 would understand how to go about replacing a piece of
9 what's in the figures because it's been described in
10 the specification.

11 Q. Where, in the specification, does it
12 describe some sort of physical interface to allow an
13 individual to download software or firmware to Hunt's
14 device?

15 A. I think we are back to column 11 now
16 starting on line 5, which is where this all started.

17 Q. How about we go to the figures?

18 Is there anything in the figures that shows
19 a physical interface to allow downloading of software
20 or firmware to the device in Hunt?

21 A. Figure 1A includes a wireless transmitter.
22 So data could be coming in through that into the
23 microprocessor, and then updates to the
24 software/firmware could be made.

25 MR. WICHMAN: Could we break in ten

1 minutes?

2 MR. SANTURRI: Sure.

3 BY MR. SANTURRI:

4 Q. Okay. So you have pointed me to a wireless
5 transmitter. There's not -- but there's not a physical
6 interface that would allow me, for example, to connect
7 a cable or attach a device, attach storage media,
8 something, in order to physically download software or
9 firmware to Hunt's device; is that right?

10 A. Well, if we look at Figure 1B, there's a
11 wireless modem that's provided, and it's got a line
12 that's connecting to a component that's called
13 "connector." So it seems that there may be a way. I
14 mean, any of those lines could be physical lines or
15 wireless lines. So I feel as if the figures may show
16 that we could connect directly to it either wirelessly
17 or wired.

18 Q. That's the multi-pin connector for the
19 wireless modem? Is that what we are looking at, 37?

20 A. I was looking at 37 is what I was looking
21 at, and then, more generally, Box 35.

22 Q. And would you agree with me that the -- for
23 example, if you take a look -- if you were looking
24 at -- still looking at 1B, Figure 1B of Hunt, that
25 those individual communication circuits 25, A, B, C, D

1 and E.

2 Do you see those?

3 A. Yes, I see those in Figure 1B.

4 Q. Wouldn't be -- it's not going to be
5 possible, once this device is manufactured, to change
6 the software in -- in any of those individual
7 communication circuits; correct?

8 MR. WICHMAN: Objection. Form. Assumes
9 facts not in evidence. Beyond the scope.

10 THE WITNESS: I disagree with that
11 statement.

12 BY MR. SANTURRI:

13 Q. Okay. And why?

14 A. Because I believe that we can update the
15 communications that's happening in, generally, Box 25,
16 based on what Hunt has disclosed.

17 Q. So if you turn your attention to column 5
18 of Hunt, down to about line 61 or so.

19 Are you there?

20 A. Yes.

21 Q. And he says, "The entire
22 vehicle-communication circuit 25 is integrated into a
23 single ASIC and manages communication through the
24 electrical/mechanical interface 23 with separate
25 modules 25a-25e for different vehicle buses."

1 And he says, "Each module 25a-25e is a
2 separate integrated circuit within the communication
3 circuit."

4 Do you not interpret that explanation from
5 Hunt to be indicating that each of those separate
6 integrated circuits are within a single ASIC and cannot
7 be reprogrammed or updated after manufacture?

8 MR. WICHMAN: Objection. Form.

9 THE WITNESS: This is merely one embodiment
10 that Hunt has provided. And he even explains in column
11 6 starting on line 13, it states, "It is to be
12 appreciated that the specific protocols supported by
13 the vehicle-communication circuit 25 of FIG. 1B are
14 merely examples. In some embodiments, more, fewer or
15 other protocols may be supported by a
16 vehicle-communication circuit."

17 And as we've already seen in different
18 parts of the specification, such as column 11, this is
19 just one embodiment. And other embodiments could
20 include laptops or microcomputers or computers, that
21 are implementing the functionality, so it doesn't have
22 to be implemented solely the way that it was disclosed
23 in this one exemplary embodiment.

24 BY MR. SANTURRI:

25 Q. Can you look at the structure on Figure 6?

1 The structure that's depicted in
2 Figure 6 -- well, is there a software or firmware
3 stored in the structure that is shown in Figure 6?

4 A. Column 9 starting on line 28 begins the
5 explanation of Figures 6 and 7. And it states, "These
6 logic diagrams represent circuits that function as
7 individual modules within the data-communication
8 circuit and are integrated directly into the ASIC."

9 And as we already discussed earlier, Hunt's
10 disclosure of an ASIC includes a microprocessor. So
11 there would be software and/or firmware that is running
12 within the ASIC, and this logic diagram that's provided
13 in Figure 6 is only part of that.

14 Q. Okay. Well, I was just asking where --
15 where is -- is the software or firmware stored anywhere
16 in the circuits or components shown in Figure 6?

17 A. Well, there are devices in Figure 6 that do
18 store charges. Just looking at Figure 6, as one
19 component of the overall ASIC, it doesn't appear as if
20 there is software that's stored in that figure, but
21 there is the ability to store data, which, you know,
22 could be software or firmware. But as I said, I think
23 we need to look at the bigger part, that this is only
24 part of the ASIC, which also -- the ASIC also includes
25 a microprocessor.

1 Q. Is there anything -- any component in
2 Figure 7 that --

3 (Clarification by the reporter.)

4 BY MR. SANTURRI:

5 Q. I said, is there anything in Figure 7 --
6 any component in Figure 7 that stores software or
7 firmware?

8 A. So, as I said, with respect to Figure 6,
9 that there are components that can store data in
10 Figure 7, and this is only part of the ASIC, which also
11 includes a microprocessor.

12 Q. Okay. But in Figure 7, just what's in
13 Figure 7, is there somewhere that stores software and
14 firmware in the components depicted in Figure 7?

15 A. There's components in Figure 7, as in
16 Figure 6, that can store charges that can hold data.
17 There are capacitors that are in both of those. It
18 doesn't appear as if firmware or software is going to
19 be stored in those, because that's not the
20 functionality of that circuit. But, again, this is
21 only one embodiment of Hunt's disclosure.

22 Q. Is there any ability to -- strike that.
23 Is there anything in Hunt that says the
24 components specifically depicted in Figure 6 can be --
25 can have their software or firmware updated?

1 A. As I said, this is one embodiment of Hunt's
2 disclosure. And with respect to Figures 6 and 7, I
3 believe that he has described those in column 9.

4 Q. Right. And there's nothing in column 9
5 that talks about updating software that's stored in the
6 specific components depicted in either Figure 6 or 7;
7 is that right?

8 A. No, I don't believe that that's right. He
9 was referring to a sentence that we discussed earlier,
10 column 9, line 41. "These protocols can be implemented
11 using integrated silicon-based solutions (e.g. a custom
12 ASIC) or using transistors or conventional circuit
13 elements."

14 And so including conventional circuit
15 elements or a microprocessor would allow updates to
16 occur. So again, this is merely one embodiment of
17 Hunt's disclosure, but other embodiments would allow
18 updates to occur.

19 Q. And I will try to wrap this up because I
20 know we are going to take a break, but in -- if I
21 understood your earlier testimony, if you were solely
22 looking at the components in Figure 6 or 7, there are
23 no components depicted that store firmware or software
24 in those two particular figures; is that right?

25 A. I feel I've answered this question already.

1 There are components that store data or store charges
2 in Figures 6 and 7, but I don't believe that software
3 or firmware is going to be stored in those, but that's
4 merely one embodiment of Hunt, where other embodiments
5 that he's disclosed would store software and firmware
6 and be able to have them updated as well.

7 MR. SANTURRI: Okay. Why don't we go ahead
8 and take a ten-minute break.

9 MR. WICHMAN: Yes.

10 MR. SANTURRI: We will go off the record.

11 (Recess was taken.)

12 BY MR. SANTURRI:

13 Q. Dr. Miller, just to make sure I close the
14 loop on some of the earlier discussion we had on the
15 software and firmware, is there anything in Hunt that
16 says that the -- is there anything in Hunt that talked
17 about the need to regularly update firmware and
18 software?

19 A. I'll refer back to column 10, starting on
20 line 55, where Hunt states, "It will be apparent to one
21 of ordinary skill in the art that some of the
22 embodiments as described hereinabove may be implemented
23 in many different embodiments of software, firmware and
24 hardware in the entities illustrated in the figures."

25 And referring back to my declaration, where

1 I've stated that a person of ordinary skill in the art
2 would have understood that providing updates to
3 software or firmware would be necessary for initially
4 putting the software or firmware onto the device or for
5 updating it to fix bugs or other software errors.

6 Q. Are there advantages to using an ASIC
7 versus a -- programmable circuits; right?

8 A. There's advantages to different ways of --
9 of completing tasks, which is why we have more than one
10 way to do things.

11 Q. Okay. Well, how about my question? Are
12 there advantages to using ASIC over programmable
13 circuitry, or reprogrammable circuitry, I guess, is
14 what I should say?

15 MR. WICHMAN: Objection. Form.

16 THE WITNESS: There will be advantages and
17 disadvantages to using ASIC over programmable
18 components based on different requirements that may
19 exist.

20 BY MR. SANTURRI:

21 Q. And, in fact, in Hunt disclosure column 4
22 about line 39, he talks about integrating multiple
23 conventional circuits into custom ASIC reduces
24 manufacturing costs and increases reliability of the
25 appliance.

1 Do you see that?

2 A. Yes, it states that as the first sentence
3 starting on line 39.

4 Q. And so in terms of recognizing the benefits
5 like he discussed, if one opts for the benefits of an
6 ASIC, then they are necessarily electing for a device
7 that can't be reprogrammed in which you can't apply bug
8 fixes to; right?

9 MR. WICHMAN: Objection. Form. Assumes
10 facts not in evidence.

11 THE WITNESS: Well, as we discussed
12 earlier, ASICs could be replaced. And as I referenced
13 then, that's my opinion, but also Omega in the patent
14 owner's response stated that. And then I agreed with
15 that in my declaration.

16 BY MR. SANTURRI:

17 Q. There is no ability to do a bug fix on an
18 ASIC. Would you agree with that statement?

19 MR. WICHMAN: Objection. Form.
20 Mischaracterizes the record.

21 THE WITNESS: No, I would not agree with
22 that statement.

23 BY MR. SANTURRI:

24 Q. Okay. Well, I feel like earlier you agreed
25 with me that an ASIC couldn't be reprogrammed.

1 Is that not true? Is that not what you
2 said?

3 MR. WICHMAN: Objection. Form.

4 THE WITNESS: I agree that that's true.
5 BY MR. SANTURRI:

6 Q. Okay. And so if it can't -- if an ASIC
7 can't be reprogrammed, then you -- then necessarily,
8 doesn't that mean that you can't change the software in
9 an ASIC to fix a bug or for any other purpose?

10 MR. WICHMAN: Objection. Form.

11 THE WITNESS: That's a different question
12 than the one that you asked me. You can fix a bug in
13 an ASIC by replacing an ASIC.

14 BY MR. SANTURRI:

15 Q. Well, what about -- I want to make sure
16 that I understand this right. So I'm -- once the ASIC
17 is manufactured, it can't be replaced -- I mean, I'm
18 sorry -- strike that. I will start over.

19 ASIC is manufactured, and at that time, the
20 software in that ASIC cannot be reprogrammed; correct?

21 MR. WICHMAN: Objection. Form.

22 THE WITNESS: The arrangement of the
23 hardware components that are inside of the ASIC cannot
24 be rearranged after it has been manufactured.

25 ///

1 BY MR. SANTURRI:

2 Q. And if there's programming within those
3 components after the ASIC has been manufactured, that
4 programming cannot be changed; correct?

5 MR. WICHMAN: Objection. Form.

6 THE WITNESS: The arrangement of the
7 components inside of the ASIC will not have the ability
8 to be changed.

9 BY MR. SANTURRI:

10 Q. And the components inside of that ASIC
11 could not be updated with a bug fix, once the ASIC is
12 manufactured; correct?

13 MR. WICHMAN: Objection. Form.

14 THE WITNESS: Well, as I stated, to fix a
15 bug in an ASIC, you could replace it. The components
16 inside of an already-manufactured ASIC will not be able
17 to be changed, though.

18 BY MR. SANTURRI:

19 Q. Let's turn to paragraph 35 of your
20 declaration, 35 through 37.

21 MR. SANTURRI: Adam, I'm getting a call
22 from Roanoke, Virginia. Could we go off the record? I
23 just want to make sure that this is the Board calling.

24 (Recess was taken.)

25 ///

1 BY MR. SANTURRI:

2 Q. All right. Sir, if I could get your
3 attention to focus on paragraphs 35 through 37.

4 A. Okay.

5 Q. And my initial question for you is: Are
6 you proposing that -- or are you suggesting that it
7 would have been -- that a POSA would have considered
8 using a Bluetooth connection to allow communication
9 between microprocessor 27 and the vehicle-communication
10 circuit at 25? Let me just strike that.

11 In paragraph 36, I think that's exactly
12 what you say, that, "POSAs would have understood that
13 the ordinary meaning of 'data link' in Hunt's
14 specification included wireless data links like
15 Bluetooth."

16 Do you see that?

17 A. Yes, I see that in paragraph 36.

18 Q. Are you saying that one of ordinary skill
19 in the art would have -- would have used a Bluetooth
20 connection, rather than the numbered connection 179 in
21 your figure there, Figure 5, or in the patent figure?

22 A. What I'm saying is line 179 doesn't have to
23 be a wired connection. It could be a wireless
24 connection utilizing something, such as Bluetooth.

25 Q. And if one were going to do that, then you

1 would need a Bluetooth transceiver associated with
2 element 25 and a Bluetooth transceiver associated with
3 element 27; is that right?

4 A. If it was using Bluetooth for the wireless
5 communication, there would need to be Bluetooth
6 capabilities on both sides in the microcontroller 177
7 inside of component 25, as well as the microprocessor
8 27.

9 Q. Now, in Hunt's device, is -- is the
10 communication circuit 25 and microprocessor 27 -- those
11 are packaged in -- in one single device; is that right?

12 A. I don't believe that that's true in all
13 embodiments.

14 Q. Okay. Is there a -- is there an embodiment
15 in Hunt that -- for example, if we go to Hunt -- and it
16 looks like it would be column 8 that discusses the
17 Figure 5 schematic diagram, if you want to pull that
18 up.

19 A. Okay.

20 Q. And, actually, it looks like we -- you can
21 see there that there is reference to -- Hunt references
22 the fact that the ASIC 175 including the internal
23 microcontroller 177 connects to an external
24 microprocessor through a data link, 179, (e.g. an
25 asynchronous serial channel); right?

1 A. Yes, I see that.

2 Q. And sort of the conventional way of doing
3 that, at the time, was that -- that's -- is that just
4 a -- pins on a board? Is that what we are talking
5 about here?

6 MR. WICHMAN: Objection. Form.

7 THE WITNESS: I don't understand what
8 you're -- what you're asking.

9 BY MR. SANTURRI:

10 Q. Well, I'm asking, physically, what does
11 that data link look like back in 2007 timeframe -- or,
12 actually, whenever Hunt -- I think Hunt was actually
13 earlier than that -- the 2003 timeframe.

14 Physically, what kind of structure would
15 have been used as this data link 179?

16 A. So Hunt just refers to it as a data link.
17 And then he says on line 58 of column 8, "an
18 asynchronous serial channel."

19 And in this section of my declaration,
20 Section 6, I walk through an explanation of Bluetooth
21 already having been in existence, and that could have
22 been used as a data link.

23 So I don't think the term "data link"
24 necessarily implies pins on a chip, as you've stated,
25 or even implies that it's a wired link. It's a more

1 generic term of just saying that there's data that's
2 able to be transmitted.

3 Q. Okay. Well, let's -- can you come back to
4 my question? Can you just tell me what -- physically,
5 what type of connection would you have -- would have
6 been used or could have been used for this data link at
7 179?

8 A. Well, that's what I'm explaining in
9 Section 6 of my declaration is that Bluetooth could
10 have been used.

11 Q. Okay. What types of hard-wired connections
12 could have been used?

13 A. I assume a wired connection could have been
14 used. I -- I didn't think that through. That's not
15 what I'm opining on here.

16 Q. There isn't any detailed diagram or express
17 statement by Hunt that the data link 179 could be done
18 wirelessly, is there?

19 A. I believe that Hunt just stated that 179 is
20 a data link, (e.g., asynchronous serial channel).

21 Q. And to do that wirelessly, as you're
22 suggesting, you would need Bluetooth transceivers on
23 both sides of that connection; right?

24 A. I had stated that Bluetooth could have been
25 used for data link 179. And in the event that

1 Bluetooth was used for 179, you would have needed
2 Bluetooth capabilities on both sides.

3 Q. Is there an express teaching in Hunt that
4 microprocessor 27 can be outside of the vehicle while
5 the rest of the -- while the vehicle-communication
6 circuit 25 is inside the vehicle?

7 A. In paragraph 35, I stated, "Hunt's
8 'asynchronous serial connection' data link 179 connects
9 the vehicle-communication circuit to microprocessor 27,
10 and also connects the vehicle-communication circuit to
11 a wireless transmitter. The cellphone provides the
12 microprocessor and the wireless transmitter, that
13 connects by data link 179, to the vehicle-communication
14 circuit."

15 Q. Tell me which paragraph you were reading
16 from.

17 A. Paragraph 35 of my declaration.

18 Q. I'm just trying to make sure that I'm
19 understanding this paragraph 35.

20 Are you -- it's your opinion that
21 microprocessor 27, as described herein, for example,
22 Figure B as an ARM7 microprocessor, that would be
23 located outside of the vehicle?

24 A. If the microprocessor was connected with a
25 wireless link 179, then it could be inside the vehicle,

1 but not physically connected, or it could be external.

2 Q. External to the vehicle?

3 A. It could be external to the vehicle;
4 however, utilizing a technology, such as Bluetooth,
5 would mean that the device would need to be within 10
6 meters is what the Bluetooth specification provides for
7 communication. So it would have to be close.

8 Q. And was there anything in Hunt that
9 expressly stated that the microprocessor could be
10 located outside of or external to the vehicle?

11 A. I don't recall whether that's the case, but
12 as I said, even with Bluetooth, that could still be
13 internal to the vehicle. We all use Bluetooth internal
14 to our vehicles.

15 Q. And to be clear, there's no -- Hunt doesn't
16 make any express reference to Bluetooth at all; right?

17 A. The word "Bluetooth" is not included in the
18 Hunt patent.

19 Q. Okay. In paragraph 57 --

20 A. Can you repeat that?

21 Q. Sure. In paragraph 57, I'm looking at the
22 last sentence of your paragraph 57, you say, "While an
23 ASIC can implement more than a physical layer, Hunt
24 never describes implementing anything in an ASIC beyond
25 the physical layer circuits corresponding to the

1 off-the-shelf components shown in logic diagrams 200
2 and 210 in Figures 6 and 7."

3 Do you see that?

4 A. Yes, I see that sentence in paragraph 57.

5 Q. And if you turn your attention to Figure 5,
6 doesn't Hunt describe the vehicle-communication circuit
7 25 as being incorporated into a custom ASIC?

8 MR. WICHMAN: Objection. Form.

9 THE WITNESS: In column 6, Hunt refers to
10 component 25 as the vehicle-communication circuit.
11 Further down on column 6, Hunt refers to 25 as the data
12 communication circuit. And then it seems consistently
13 throughout the specification, Hunt refers to 25 as the
14 vehicle-communication circuit.

15 BY MR. SANTURRI:

16 Q. Okay. Let me go back. So if you can look
17 at column 8, starting at line 14, it says, "As
18 described above, the vehicle-communication circuit 25
19 in FIG. 1B is a custom ASIC that features individual
20 modules for managing communication protocols for
21 different vehicles."

22 Do you see that?

23 A. Yes, I see that.

24 Q. Is it correct that Hunt also discloses the
25 same numbered element, 25, as including a multiplexor

1 and a microcontroller?

2 A. Can you point me to where he discloses
3 that?

4 Q. Figure 5.

5 A. In Figure 5, there is a multiplexor and a
6 microcontroller inside of component 25.

7 Q. And would you agree with me that a
8 multiplexor and/or the microcontroller, that those
9 components are used for data link layer formatting?

10 MR. WICHMAN: Objection. Form.

11 THE WITNESS: It depends on what the
12 multiplexor and the microcontroller are doing.

13 To take this to another example, a
14 microprocessor could implement all seven layers in the
15 OSI model, or it could be used to implement only one of
16 the layers in the model. So merely having a component
17 doesn't necessarily determine the number of layers that
18 are implemented in the component.

19 BY MR. SANTURRI:

20 Q. Well, you say that there's never -- Hunt
21 never describes implementing anything in the ASIC
22 beyond the physical layer circuits. And I guess I'm
23 trying to figure out, are you saying that the ASIC that
24 is shown in Figure 5 -- doesn't that show an ASIC that
25 would have something beyond physical layer circuits to

1 data link layer formatting?

2 MR. WICHMAN: Objection. Form.

3 THE WITNESS: No, I don't believe that
4 Figure 5 by itself shows that. And what my statement
5 was that you read earlier, I stated, "While an ASIC can
6 implement more than a physical layer, Hunt never
7 describes implementing anything in an ASIC beyond the
8 physical layer circuits corresponding to the
9 off-the-shelf components as shown in logic diagrams 200
10 and 210 in Figures 6 and 7."

11 BY MR. SANTURRI:

12 Q. So are you -- are you saying that Hunt's
13 disclosure of an ASIC is limited to what's in Figure 6
14 and 7?

15 A. No, that's not what I'm saying. What I'm
16 saying is that Hunt never described implementing
17 anything in an ASIC beyond the physical layer circuits.

18 Q. In paragraph 64 of your declaration, you
19 say that "Implementing communication protocol layers in
20 software provides significant flexibility for designers
21 and engineers."

22 Is there anything in Hunt that says that
23 the communication protocol layers are not implemented
24 through an ASIC?

25 A. Can you repeat that, please?

1 Q. I can try. You say in 64, "Implementing
2 communication protocol layers in software provides
3 significant flexibility for designers and engineers."

4 Does Hunt disclose implementing
5 communication protocol layers in software, rather than
6 in an ASIC?

7 A. Go back to column 11, Hunt states, starting
8 on line 4, "The processes associated with some of the
9 present embodiments may be executed by programmable
10 equipment, such as computers."

11 So I believe that Hunt is disclosing that.

12 Q. Is that the only location, column 11?

13 A. That this invention could be implemented on
14 a computer and software, as opposed to using ASICs,
15 which is, again, merely one embodiment that Hunt has
16 disclosed.

17 Q. Will you agree with me that Hunt
18 specifically describes the advantages of using an ASIC
19 for his invention?

20 MR. WICHMAN: Objection. Form.

21 BY MR. SANTURRI:

22 Q. And I can direct your attention to column
23 4, line 39 through 46, if that would help.

24 A. Hunt states some of the benefits that would
25 be realized by utilizing ASICs.

1 Q. Paragraph 79 of your declaration, you say,
2 "There is no passage in Hunt that describes
3 'generating' a device code in ASIC. I understand that
4 Omega's expert agrees."

5 Do you see that?

6 A. Yes, that's my paragraph 79.

7 Q. Yes, sir. So in the testimony that you're
8 referring to that -- the testimony was that there's not
9 even identified device codes in Hunt; therefore, they
10 couldn't be talking about generating device codes.

11 Do you believe that there are identified --
12 that device codes are referenced at all in Hunt?

13 MR. WICHMAN: Objection. Form. Also
14 beyond the scope.

15 THE WITNESS: The device codes are
16 necessary for communication over the vehicle data bus.
17 BY MR. SANTURRI:

18 Q. Okay. Does Hunt say -- does Hunt make any
19 reference to device codes?

20 MR. WICHMAN: Objection. Scope. Form.

21 THE WITNESS: Hunt doesn't use the term
22 "device code" in the patent, but I believe that an
23 understanding of how to communicate over the vehicle
24 data bus, which is disclosed in Hunt, requires an
25 understanding of device codes.

1 BY MR. SANTURRI:

2 Q. Turn back to paragraph 14 of your
3 declaration. Are you there?

4 A. Yes.

5 Q. In reaching the opinion that you offer in
6 paragraph 14, did you consider any evidence of
7 licensing or royalties for the '278 patent?

8 A. From what I stated in paragraph 14, I don't
9 believe that I considered licensing or royalties.

10 Q. And to reach your opinion in paragraph 14,
11 did you consider evidence of copying by any infringers
12 of the '278 patent?

13 A. No, I didn't consider infringers of the
14 '278 patent in forming that opinion, which was
15 specifically as a result of Omega's argument, that Hunt
16 does not address ongoing compatibility with different
17 vehicles, since Hunt discloses protocol modules being
18 embodied in an ASIC. That's what I was providing the
19 opinion on, was that statement.

20 Q. Well, and -- and you're talking about the
21 fact that the communication protocols are embodied in
22 an ASIC, those communication protocols once
23 manufactured in that ASIC cannot change; correct?

24 MR. WICHMAN: Objection. Form. Assumes
25 facts not in evidence. Mischaracterizes the record.

1 THE WITNESS: So as I've already explained,
2 the use of an ASIC is one embodiment that is included
3 in Hunt. And what I was addressing here, which I
4 emphasized even by italicizing and underlining the word
5 "ongoing," is that Omega argued that combining Hunt's
6 GPS with Flick-885's controller does not address
7 ongoing compatibility with different vehicles.

8 In the disclosure -- I'm sorry. In the
9 embodiment in Hunt that utilized ASICs, ASICs could be
10 substituted in and out or replaced to take into account
11 compatibility with different vehicles that utilize
12 different protocols, or in other embodiments in Hunt,
13 the protocols could be implemented in software or
14 firmware, which could account for compatibility with
15 different vehicles that utilize different protocols, as
16 well. That's what I was disagreeing with.

17 BY MR. SANTURRI:

18 Q. And the second of those two, the using
19 software or firmware to -- to deal with the
20 communication protocols, the only support you had for
21 that from Hunt was from column 11; is that right?

22 A. I don't know if that is the only support,
23 but that is one of the support pieces that I found in
24 Hunt.

25 Q. Is there something in your declaration that

1 would help you figure out if there was anywhere else
2 you relied upon to opine that Hunt discloses using
3 software or firmware for communication protocols on the
4 bus, other than column 11?

5 A. I see also in column 10 starting on
6 line 46, Hunt says, "Further, some embodiments of the
7 present invention may be implemented in part or in
8 whole, as a hard-wired circuit, as a circuit
9 configuration fabricated into an application-specific
10 integrated circuit, or as a firmware program loaded
11 into nonvolatile storage, or a software program loaded
12 from or into a data storage medium as machine-readable
13 code."

14 Q. And that part in column 10 that you just
15 read, that doesn't indicate whether that's referring
16 to, for example, bus communication protocols versus the
17 protocols and formatting for the wireless modem; right?

18 A. Well, Hunt states, "Some embodiments of the
19 present invention may be implemented in part or in
20 whole as," and then the list of -- of items.

21 So I would take that to mean that it could
22 be referring to any of the different embodiments.

23 Q. And going back to your paragraph 14, in
24 offering the opinion you had in paragraph 14, did you
25 consider the commercial success of infringing products?

1 A. For the opinion that I formed in
2 paragraph 14, I didn't feel it was necessary to
3 consider that.

4 Q. And for the opinion in paragraph 14, did
5 you consider evidence of customer need and limited
6 value for products without the technology in the '278
7 patent?

8 MR. WICHMAN: Objection. Form.

9 THE WITNESS: For the opinion from
10 paragraph 14, I did not consider that.

11 BY MR. SANTURRI:

12 Q. And when you offered the opinion in
13 paragraph 14, did you consider lack of available
14 alternatives to any infringing products?

15 A. For the opinion in paragraph 14, I didn't
16 feel it was necessary to consider that.

17 Q. And when you say you "didn't feel it was
18 necessary to consider it," why is that?

19 A. Because I feel that Hunt discloses having
20 the vehicle-communication circuit in an ASIC or
21 implemented in software or firmware or through other
22 components. And I believe that Hunt does address
23 compatibility with different vehicles utilizing
24 different protocols.

25 Q. All right.

1 MR. SANTURRI: Tell you what, why don't we
2 take a five-minute break.

3 (Recess was taken.)

4 MR. SANTURRI: Dr. Miller, I do not have
5 any further questions for you. We will see if your
6 counsel does.

7 MR. WICHMAN: Okay. Thanks. So I would
8 like to go off the record for ten minutes, and we will
9 come back on and resume.

10 MR. SANTURRI: Okay.

11 (Recess was taken.)

12 EXAMINATION

13 BY MR. WICHMAN:

14 Q. Dr. Miller, I would like to ask you about a
15 few topics that were addressed in cross-examination;
16 okay?

17 A. Okay.

18 Q. Do you recall that Mr. Santurri asked you
19 about post-manufacture firmware download, something you
20 address in your declaration in paragraphs 24
21 through 31?

22 A. Yes.

23 Q. So in paragraph 26, you discuss bug fixing
24 as a reason for downloading software after manufacture;
25 is that right?

1 A. Yes. That's where I start that discussion.

2 Q. Okay. And do you recall that Mr. Santurri
3 asked you whether an ASIC could be reprogrammed?

4 A. Yes, I recall that.

5 Q. And so would a bug fix be something that
6 would be applied in reprogramming a component?

7 A. Yes, a bug fix could be -- a bug could be
8 fixed by reprogramming a component.

9 Q. Okay. If you could turn in your
10 declaration to paragraph 71.

11 So in these paragraphs 69 through 73, you
12 are discussing whether Hunt ASIC is programmable;
13 right?

14 A. Yes.

15 Q. Does Hunt describe an ASIC that includes a
16 microprocessor?

17 A. Yes, that's -- that's how Hunt describes an
18 ASIC is including the -- the microprocessor.

19 Q. And you -- that is in your testimony,
20 correct, in paragraph 71; is that right?

21 A. Yes. That's paragraph 71 where I said,
22 "Hunt specifically says its ASIC includes a
23 microprocessor."

24 Q. And what's the -- what's the basis for
25 that -- that opinion? Where did you find that in Hunt?

1 A. In column 3, starting on line 50, Hunt
2 states, "In another aspect, the invention provides a
3 single ASIC that features (1) a microprocessor; (2) a
4 vehicle-communication circuit," and so on.

5 Q. And do microprocessors have to be
6 programmed?

7 A. Yes. There's going to be code that's
8 running on a microprocessor.

9 Q. And is that -- when you were talking about
10 bugs, back in paragraphs 26 and 27 of your implied
11 declaration, would that discussion apply to programming
12 a microprocessor that's included in Hunt's ASIC?

13 A. Yes. So with Hunt's description of an
14 ASIC, it could be reprogrammed because it contains a
15 microprocessor, which needs to be programmed.

16 So reprogramming the microprocessor, that's
17 disclosed as part of Hunt's ASIC, would have the
18 ability to fix bugs in the code.

19 Q. So I would like to turn to a different
20 topic.

21 Do you recall that Mr. Santurri asked you
22 about the use of firmware and software in Hunt's
23 specification?

24 A. Yes, I recall that.

25 Q. And specifically, what uses microprocessor

1 27 made of firmware or software. Do you recall that?

2 A. Yes, I recall that.

3 Q. Okay. In Hunt, Exhibit 1023, could you
4 turn to column 8, line 66? Just let me know when you
5 are there.

6 A. I'm there.

7 Q. Okay. So I'm going to read, and I would
8 like you to follow along.

9 "During operation, the microprocessor 27
10 determines the communication protocol of the host
11 vehicle, such as by monitoring the baud rate and the
12 pulse width characteristics of the host vehicle's
13 communication protocol through the
14 mechanical/electrical interface. In another
15 embodiment, the microprocessor determines the
16 communication protocol of the host vehicle by testing
17 each protocol in an effort to establish communication."

18 In column 9, line 6, did I read that
19 correctly?

20 A. Yes.

21 Q. Okay. So can a microprocessor determine
22 the communication protocol of the host vehicle without
23 being programmed by software or firmware?

24 A. No. The microprocessor would need to be
25 programmed, so that it could execute that functionality

1 of determining the communication protocol of the host
2 vehicle.

3 Q. And is that programming -- could that
4 programming be done in software?

5 A. Yes. If it's running on the
6 microprocessor, the programming would be done in
7 software.

8 Q. And could it be done in firmware?

9 A. Yes. It could also be done in firmware,
10 which would be running directly on top of the hardware.
11 That would also be possible.

12 Q. So is this firmware/software something that
13 Hunt describes as being wirelessly downloaded after
14 manufacturing?

15 A. Hunt does -- does disclose that this could
16 be downloaded after manufacture.

17 Q. Okay. Finally, and let's talk about
18 Bluetooth.

19 Do you recall Mr. Santurri asked you about
20 Bluetooth?

21 A. Yes.

22 Q. And he asked you about using Bluetooth to
23 provide data link 179 in Hunt's appliance as shown in
24 Figure 5?

25 A. Yes, I recall that.

1 Q. Okay. Why would a POSA use Bluetooth to
2 implement data link 179?

3 A. Data link 179 could be wireless. And I
4 opined that Bluetooth would have been an appropriate
5 way that a POSA would have thought about implementing
6 that line 179.

7 In my declaration, I provide four reasons
8 as to why that would be the case. So paragraph 38
9 starts a section where I state that Bluetooth is
10 wireless.

11 Paragraph 43 starts a section where I said
12 Bluetooth provides an asynchronous data link, which is
13 what Hunt disclosed when he discussed line 179.

14 Paragraph 44 starts a section where I state that
15 Bluetooth provides a serial data link, again, because
16 that's what Hunt had disclosed.

17 And then paragraph 46 starts a section
18 where I state that the Bluetooth data rates exceeded
19 those that are needed by Hunt's vehicle
20 vehicle-communication protocols, which he provided
21 in -- in the specification. And Bluetooth data rates
22 exceeded what was required by Hunt's
23 vehicle-communication protocols.

24 The last section, which starts on
25 paragraph 48, is that cellphones, typically, came with

1 Bluetooth as part of them. And so that would be
2 another reason that a POA would have considered
3 Bluetooth to implement line 179 in Hunt.

4 Q. Will you look at paragraph 38 of your
5 declaration, your implied declaration?

6 A. Okay.

7 Q. The second sentence says, "POAs also knew
8 that a conventional use of Bluetooth was to provide a
9 wireless asynchronous serial connection between a
10 cellphone and a vehicular network"; right?

11 A. Yes, I stated that.

12 Q. Okay. And you cited this Exhibit 1060 in
13 column 6, lines 25 to 41 as an example of Bluetooth
14 connecting a cellphone to a vehicle network?

15 A. That's correct.

16 Q. So was it a conventional use of Bluetooth
17 in May of 2003 to connect cellphones to vehicle
18 networks?

19 A. Yes, that's what I stated in paragraph 37.
20 And then cited a -- a different patent, 7,209,813,
21 which is Exhibit 1060 to support that.

22 MR. WICHMAN: No further questions,
23 Mr. Santurri, if you want recross.

24 MR. SANTURRI: Can you give me just -- just
25 give me two minutes to take a look at my notes.

1 MR. WICHMAN: Okay. All right. I don't
2 have any further questions.

3 MR. SANTURRI: Dr. Miller, you can read
4 your transcript or you can waive that right. Which
5 would you prefer?

6 MR. WICHMAN: The witness will read and
7 sign.

8 MR. SANTURRI: Okay. Madam Court Reporter,
9 we are going to need a rush turnaround on this -- on
10 this transcript because we have a filing due a week or
11 so from now. What's your timeframe?

12 COURT REPORTER: When do you need it by?

13 MR. SANTURRI: I definitely need the final
14 before we file next Friday, I believe. And if you
15 could get me a rough as soon as you have it and the
16 final by next Thursday.

17 COURT REPORTER: And would you like a final
18 copy, Mr. Wichman?

19 MR. WICHMAN: We would like a rough, an
20 overnight rough, if you could send that. Since the
21 witness has to read and sign, we will see it anyway.
22 Since we are in realtime, I believe we ordered a final,
23 you might as well send that.

24 COURT REPORTER: So you want the rough and
25 you want the final?

MR. WICHMAN: Yes.

(Concluded at 1:22 p.m.)

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REPORTER'S CERTIFICATE

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COUNTY OF SALT LAKE)

I, ABIGAIL D.W. JOHNSON, a Certified
Shorthand Reporter and Registered Professional
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taken before me at the time and place therein set
forth, at which time the witness was placed under oath
to tell the truth, the whole truth, and nothing but the
truth; that the proceedings were taken down by me in
shorthand and thereafter my notes were transcribed
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transcript constitutes a full, true, and accurate
record of such testimony adduced and oral proceedings
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I FURTHER CERTIFY that I am not a
relative or employee of any attorney of the parties,
nor do I have a financial interest in the action.

(X) Review and signature was requested.

() Review and signature was waived.

() Review and signature was not requested.

I have subscribed my name on this
4th day of March, 2024.



ABIGAIL D.W. JOHNSON, RPR, CRR, CRC

1 Adam Wichman

2 Awichman-ptab@wolfgreen.com

3 March 4, 2024

4 RE: Geotab USA, Inc, And Geotab, Inc,. v. Omega Patents, LLC
5 2/29/2024, Jeffrey Miller , Ph.D. (#6448876)

6 The above-referenced transcript is available for
7 review.

8 Within the applicable timeframe, the witness should
9 read the testimony to verify its accuracy. If there are
10 any changes, the witness should note those with the
11 reason, on the attached Errata Sheet.

12 The witness should sign the Acknowledgment of
13 Deponent and Errata and return to the deposing attorney.
14 Copies should be sent to all counsel, and to Veritext at
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16 Return completed errata within 30 days from
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18 If the witness fails to do so within the time
19 allotted, the transcript may be used as if signed.

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Jeffrey Miller , Ph.D.

Date

Geotab USA, Inc, And Geotab, Inc, . v. Omega Patents, LLC
Jeffrey Miller , Ph.D. (#6448876)

ACKNOWLEDGEMENT OF DEPONENT

I, Jeffrey Miller , Ph.D., do hereby declare that I
have read the foregoing transcript, I have made any
corrections, additions, or changes I deemed necessary as
noted above to be appended hereto, and that the same is
a true, correct and complete transcript of the testimony
given by me.

Jeffrey Miller , Ph.D.

Date

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&	11:5-32 48:2	200 77:1 79:9	72:2,7,10 75:6
& 2:4	129 42:24	2003 73:13	77:7,10,11,13
0	13 62:11	92:17	77:18,25 78:6
02210 2:6	133 14:11	2007 73:11	92:13
1	14 35:16,24	2014 25:11,13	255 2:11
1 30:2,7 88:3	36:21 38:20	25:17,22,25	25a 61:25 62:1
1.d 32:24 34:5	42:6 77:17 82:2	26:5,5,7,8,10,16	25e 61:25 62:1
1.d. 33:1	82:6,8,10 84:23	26:17,20 27:9	26 56:3 86:23
10 57:7,7 66:19	84:24 85:2,4,10	27:12,13,16,19	88:10
76:5 84:5,14	85:13,15	34:19 35:4,6	27 50:16 51:2
1001 3:8 6:18,22	1401 2:12	2023 9:8	54:10,14,16
7:22	15 10:4 13:20,22	2024 1:16 4:1	55:2,12,14 71:9
1002 11:11	28:3	8:23 9:2,5,9,16	72:3,8,10 75:4,9
1005 11:5,8	175 72:22	9:18,24 10:6	75:21 88:10
12:19	177 72:6,23	12:14 14:3	89:1,9
1008 17:18,20	179 71:20,22	15:11 16:1,4,16	278 7:21 11:2,11
18:3,8	72:24 73:15	19:16 21:16	12:1 14:13
1009 11:5,8	74:7,17,19,25	22:20 24:19	15:10 19:13
12:19	75:1,8,13,25	25:1,19 26:2,14	22:19 23:8,17
1023 3:10 6:18	90:23 91:2,3,6	26:22 27:11,17	24:17 32:12,17
6:22 13:2,4	91:13 92:3	28:19 29:1,8,12	40:9 49:10 82:7
14:22 16:25,25	18 50:5	34:22 39:7	82:12,14 85:6
43:16 89:3	19 29:16 30:1,5	41:25 95:24	28 63:4
1024 44:1	30:25 50:5	96:3	28932 95:24
1060 92:12,21	1996 33:13	210 77:2 79:10	29 1:16 4:1 56:3
11 48:5,8,12,19	1:22 1:17 94:2	23 8:23 61:24	3
51:15,17 52:3,6	1a 59:21	23rd 2:5 9:2	3 40:12 88:1
52:8,12 53:23	1b 60:10,24,24	24 47:17,25 49:2	30 56:4,13 58:12
54:5 59:15	61:3 62:13	49:3,15 51:9,11	96:16
62:18 80:7,12	77:19	51:23 54:11	31 54:21 56:4,16
83:21 84:4	2	55:21 86:20	86:21
1115 3:9 6:18,22	2 88:3	25 44:15,25 49:1	32 8:23,25 48:13
8:1,8 14:21	2/29/2024 96:5	54:20 55:8	51:15 52:9
15:24	20 32:4,9 98:15	60:25 61:15,22	32801-3791
		62:13 71:10	2:12

33 9:17 34 52:15 54:4 35 50:14 51:1,12 53:7 60:21 70:19,20 71:3 75:7,17,19 36 71:11,17 37 60:19,20 70:20 71:3 92:19 38 53:7 54:4 91:8 92:4 39 67:22 68:3 80:23	77:5 78:4,5,24 79:4 90:24 50 51:1,12 88:1 55 44:7 57:8 66:20 57 42:7 76:19,21 76:22 77:4 58 73:17	7 7 52:12 63:5 64:2,5,6,10,12 64:13,14,15 65:2,6,22 66:2 77:2 79:10,14 7,209,813 92:20 71 87:10,20,21 73 87:11 79 81:1,6	ability 63:21 64:22 68:17 70:7 88:18 able 34:3 45:14 50:6 57:16 66:6 70:16 74:2 above 77:18 96:6 98:7 access 7:4,8 32:13 33:9,12 33:20 34:4,7,12 34:17 58:3,4 accessing 58:10 accordance 42:20 account 83:10 83:14 accuracy 96:9 accurate 9:14 14:2 17:19 26:1 37:4 95:14 accurately 5:14 34:25 39:3 acknowledge... 98:3 acknowledgm... 96:12 action 95:19 actually 8:13 9:10 28:21 49:1 56:9 72:20 73:12,12 adam 2:4 70:21 96:1
4	6	8	
4 3:3 30:25 34:6 67:21 80:8,23 96:3 407 2:14 41 45:6 65:10 92:13 43 91:11 44 91:14 46 80:23 84:6 91:17 48 91:25 4th 95:24	6 3:8,9,10 50:10 50:10,12,13,25 51:11 62:11,25 63:2,3,5,13,16 63:17,18 64:8 64:16,24 65:2,6 65:22 66:2 73:20 74:9 77:2 77:9,11 79:10 79:13 89:18 92:13 6,611,740 13:9 6,957,133 3:10 600 2:5 61 61:18 617 2:7 63 47:12 64 79:18 80:1 6448876 96:5 97:2 98:2 646-8000 2:7 66 89:4 69 87:11	8 72:16 73:17 77:17 89:4 8,032,278 1:6 3:8 841-2330 2:14 86 3:4 885 7:7 19:14 23:10,18 24:17 36:24 37:8 38:23 40:15 885's 35:20,25 38:3,7,10,14,17 39:23 40:7 41:3 41:9,15 83:6	
5	6	9	
5 43:25 44:3,4 48:12 51:15 52:9,11 53:25 54:21,25 57:3 59:16 61:17 71:21 72:17	6	9 45:5 63:4 65:3 65:4,10 89:18 9:00 1:17 4:1	
		a	
		a.m. 1:17 4:1 abigail 1:25 95:4,25	

adaptor 51:4 add 58:18 addition 56:4 additional 23:6 additions 98:6 address 14:21 27:18 37:10 40:19 49:3 56:3 82:16 83:6 85:22 86:20 addressed 29:8 86:15 addressing 49:16 56:14 83:3 adduced 95:15 adobe 6:14 advantages 67:6 67:8,12,16 80:18 affirmatively 41:1 ago 27:8 40:24 43:19 agree 20:4 22:11 32:11 33:2,6,21 50:18 53:11,14 60:22 68:18,21 69:4 78:7 80:17 agreed 43:19 68:14,24 agrees 56:5 58:24 81:4	ahead 13:6 35:10 66:7 aid 25:6 aided 95:13 allegedly 37:9 40:19 allen 2:11 allendyer.com 2:13,13,14 allotted 96:19 allow 34:16 47:7 59:4,12,19 60:6 65:15,17 71:8 alternatives 85:14 analysis 11:24 28:24 answer 5:19 6:2 12:7,18 20:19 20:24 21:23 24:7,10,22 28:22 34:25 41:20 50:6 answered 18:21 19:6 22:22 25:4 26:25 31:19 65:25 answering 39:3 answers 5:17 58:25 anybody 7:1 anyway 93:21 apparent 57:8 66:20	appeal 1:2 appear 63:19 64:18 appears 58:24 appended 98:7 appendix 9:18 10:13 12:10,20 14:17 15:15 16:8,13,19 17:13,16 18:12 18:17,24 21:19 22:3,10 23:3 25:10,13,17,21 26:10 27:6 32:21 42:25 appliance 47:22 51:19 67:25 90:23 applicable 96:8 applicant 11:17 application 6:13 84:9 applications 6:11 applied 11:18 87:6 apply 68:7 88:11 appreciate 5:7 appreciated 62:12 approach 58:7 appropriate 91:4	approximately 4:23 argued 13:10,11 83:5 argues 35:18 37:7 47:18 arguing 36:12 argument 12:25 30:2 31:2 35:22 36:1 37:13 38:18 40:16,19 41:8 42:7 49:3 49:16,19,20,23 50:2 82:15 arguments 27:18 28:17 30:7,12,13 35:25 arm7 75:22 arrangement 47:5 69:22 70:6 art 10:10 11:9 11:25 12:13 14:12 15:9 35:19 36:13,14 36:23 37:7 38:2 38:6,9,13,16,18 38:22 39:22 40:6,14,17 41:2 41:14 57:9,22 57:24 58:14 66:21 67:1 71:19 artisans 57:15
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asic 37:12,17,20 40:22 43:21 44:11,14,24 45:8,12 47:10 47:12,13,14 56:10,10,15,15 56:17 58:14,15 58:20,20,23 61:23 62:6 63:8 63:10,12,19,24 63:24 64:10 65:12 67:6,12 67:17,23 68:6 68:18,25 69:6,9 69:13,13,16,19 69:20,23 70:3,7 70:10,11,15,16 72:22 76:23,24 77:7,19 78:21 78:23,24 79:5,7 79:13,17,24 80:6,18 81:3 82:18,22,23 83:2 85:20 87:3 87:12,15,18,22 88:3,12,14,17 asics 68:12 80:14,25 83:9,9 asked 13:24 14:4 15:3,18 17:11 18:20 19:6 22:22 23:14,15 25:3 26:24 27:4 29:4 31:18,24 69:12	86:18 87:3 88:21 90:19,22 asking 21:7,8 22:7 23:11 24:3 28:12 41:24 42:8 48:15,17 51:14 63:14 73:8,10 aspect 88:2 asserted 31:10 assistant 52:19 associated 52:13 53:25 72:1,2 80:8 assume 13:23 13:23 23:7,15 74:13 assumes 61:8 68:9 82:24 asynchronous 72:25 73:18 74:20 75:8 91:12 92:9 atlantic 2:5 attach 60:7,7 attached 8:20 96:11 attention 7:24 35:16 43:16,25 61:17 71:3 77:5 80:22 attorney 6:15 95:18 96:13 attorneys 8:9,17 17:21 21:22	27:4,24 28:8 attractive 31:16 audible 5:17,19 available 85:13 96:6 avenue 2:5,11 avoid 5:6,8 aware 32:5 awichman 2:6 96:2 b b 3:6 32:21 60:25 75:22 back 8:16 10:25 11:16,21 13:16 26:7 36:2 48:25 48:25 50:8,9 55:21 59:15 66:19,25 73:11 74:3 77:16 80:7 82:2 84:23 86:9 88:10 barred 42:11 based 4:17 17:11 25:16 27:2 45:7 51:3 57:18,23 61:16 65:11 67:18 basic 5:2 basis 87:24 baud 89:11 begins 63:4 behalf 4:17 7:16 believe 6:16 7:18 9:13 11:3	17:7 22:12,23 25:24,24 26:6 34:2 36:6 37:3 37:19 38:8,15 40:1 41:6 43:23 45:1,14 49:19 54:19 55:20 58:13,22,22 61:14 65:3,8 66:2 72:12 74:19 79:3 80:11 81:11,22 82:9 85:22 93:14,22 beneficial 58:18 benefit 7:3 benefits 68:4,5 80:24 best 5:5,8 beyond 13:12 18:9 19:5,17 22:21 23:19,24 24:4 40:10 41:18 42:1 50:23 52:9 53:21 55:4,16 55:19 61:9 76:24 78:22,25 79:7,17 81:14 bigger 63:23 blackberry 52:20 bluetooth 71:8 71:15,19,24 72:1,2,4,5 73:20
--	---	--	--

74:9,22,24 75:1 75:2 76:4,6,12 76:13,16,17 90:18,20,22 91:1,4,9,12,15 91:18,21 92:1,3 92:8,13,16 board 1:2 22:13 24:22 41:21 42:13,22 43:2,5 45:17 70:23 73:4 board's 22:9,17 42:2 boston 2:6 box 60:21 61:15 break 35:11 37:15 59:25 65:20 66:8 86:2 broke 43:18 bug 57:6 59:2 68:7,17 69:9,12 70:11,15 86:23 87:5,7,7 bugs 56:2 57:3 58:1 67:5 88:10 88:18 bullet 29:18,23 30:4,6,11 31:1 bus 33:4,7,9,13 33:20,23 34:4,8 34:12,13,17 81:16,24 84:4 84:16	buses 61:25	cellphones 91:25 92:17	46:24 47:1,6,10 56:6 61:22 62:2 62:3,13,16 63:8 64:20 65:12,14 71:10 72:10 75:6,9,10,14 77:6,10,12,14 77:18 84:8,8,10 85:20 88:4
	c c 2:1 4:2 60:25 cable 60:7 calamp 29:22 31:17,23 call 41:21 42:15 42:17,19,19 43:2,7 70:21 called 4:6 60:12 calling 70:23 calls 14:24 15:12 17:5 27:20 32:14 33:25 49:11 camera 6:14 capabilities 58:6 72:6 75:2 capable 52:22 capacitors 46:21 64:17 care 10:18 careful 10:14,15 carefully 10:10 10:12 carus 2:10 case 1:6 6:9 7:12,13,19 11:25 13:1,19 15:24 18:3 20:25 54:20 76:11 91:8 cellphone 75:11 92:10,14	cellular 52:20 certainly 20:8 certificate 18:18 19:3 95:1 certified 95:4 certify 95:6,17 change 45:24 46:9 57:2 61:5 69:8 82:23 97:4 97:7,10,13,16 97:19 changed 21:6 34:21 70:4,8,17 changes 96:10 98:6 channel 72:25 73:18 74:20 characteristics 89:12 characterize 48:23 charges 46:22 63:18 64:16 66:1 chip 73:24 chose 20:7,14 christian 25:11 christopher 2:10 circuit 44:10,12 44:15,25 45:9 45:23 46:2,7,11 46:12,14,16,18	circuitry 44:13 44:24 67:13,13 circuits 60:25 61:7 62:6 63:6 63:16 67:7,23 76:25 78:22,25 79:8,17 citation 29:22 45:2 citations 56:7 cite 20:17 25:22 26:9 51:18 cited 12:10,20 14:17 15:16 16:9,13,19 17:14 18:24 21:19 22:8,9 23:3 25:21,25 27:6 48:1 50:6 52:3 58:16 92:12,20 cites 31:1 citing 37:9 claim 30:2,7 32:5,17,24,24 47:12

claims 32:12 clarification 42:22 64:3 clarify 49:14,20 58:4 clarifying 47:11 clean 5:9 clear 14:19 76:15 clearly 57:14 clients 7:16 close 66:13 76:7 code 81:3,22 84:13 88:7,18 codes 81:9,10 81:12,15,19,25 column 44:4,7 45:5 48:2,5,12 48:18 50:10,12 50:13,25 51:10 51:11,15,17 52:3,6,8,12,15 53:23 54:5 57:7 59:15 61:17 62:10,18 63:4 65:3,4,10 66:19 67:21 72:16 73:17 77:9,11 77:17 80:7,12 80:22 83:21 84:4,5,14 88:1 89:4,18 92:13 combination 19:14 23:9 24:16	combine 36:14 40:14 combined 35:20 36:23 37:8 38:2 38:6,10,13,16 38:19,23 39:22 40:6,18 41:3,14 combining 35:25 41:9 83:5 come 74:3 86:9 coming 59:22 commercial 40:8 84:25 common 33:9,9 communicate 7:1 81:23 communication 33:4,7 44:10,12 44:15,25 47:10 56:6 58:15 60:25 61:7,22 61:23 62:2,13 62:16 63:7 71:8 71:9 72:5,10 75:5,9,10,13 76:7 77:6,10,12 77:14,18,20 79:19,23 80:2,5 81:16 82:21,22 83:20 84:3,16 85:20 88:4 89:10,13,16,17 89:22 90:1 91:20,23	communicatio... 61:15 compatibility 37:11 40:20 82:16 83:7,11 83:14 85:23 compatible 33:3 complete 98:8 completed 96:16 completing 67:9 component 48:14 60:12 63:19 64:1,6 72:7 77:10 78:6 78:16,18 87:6,8 components 46:8,11,12 63:16 64:9,14 64:15,24 65:6 65:22,23 66:1 67:18 69:23 70:3,7,10,15 77:1 78:9 79:9 85:22 compound 17:6 comprising 47:13 computer 6:10 45:22,22 46:7 48:7,19 52:10 52:16,16 53:4,6 54:3 80:14 95:13	computers 48:7 52:14 53:1 54:2 62:20 80:10 concerning 29:17 concluded 24:22 94:2 conclusion 14:25 15:13 17:6 32:15 34:1 38:21 41:13 49:12 conferenced 1:11 configuration 52:22 84:9 confines 19:22 confirm 8:25 9:13 26:12 confirmed 35:3 43:19 connect 59:4 60:6,16 92:17 connected 33:23 75:24 76:1 connecting 33:6 33:14 60:12 92:14 connection 71:8 71:20,20,23,24 74:5,13,23 75:8 92:9 connections 74:11
---	--	--	--

connector 60:13 60:18 connects 34:3 72:23 75:8,10 75:13 consider 10:2,7 10:17 11:9,23 11:25 12:13 13:8 21:14 22:17,24 25:18 26:3,8,16,20 27:9,13,16 35:5 36:15,24 38:24 39:23 40:8 82:6 82:11,13 84:25 85:3,5,10,13,16 85:18 considerations 34:20 36:4,7,9 36:15,25 38:25 39:3,7,12,15,17 considered 9:12 9:14,19,21 10:10,13,17,22 10:24,24 12:18 12:20 13:21 14:12,16 15:9 15:15 16:3,8,15 17:13,17 18:19 18:23 21:18 22:1,5 23:8,16 24:16 25:14,20 26:6 27:5 30:13 35:6 39:16 41:16 58:23	71:7 82:9 92:2 considering 10:21 29:12 consist 46:21 consistently 77:12 consisting 53:6 consists 46:7 constitutes 95:14 contained 16:3 contains 9:20 88:14 contention 36:22 contents 14:8 15:2,8,19 17:12 27:3 context 9:15 10:1 28:25 49:22 53:8,19 54:12 continue 19:25 35:21 continued 31:2 continues 57:14 control 57:16 controller 33:3 33:18,22 35:20 36:1 37:8 38:3,7 38:10,14,17,24 39:23 40:7 41:4 41:10,15 47:19 49:5,18 83:6	convenient 58:6 conventional 45:9 46:16,18 46:24 47:1,6 65:12,14 67:23 73:2 92:8,16 copies 96:14 copy 93:18 copying 39:24 40:2 82:11 correct 7:23 8:5 25:12 27:19 34:14 38:3 56:2 61:7 69:20 70:4 70:12 77:24 82:23 87:20 92:15 98:8 corrections 98:6 correctly 49:15 89:19 corresponding 76:25 79:8 costs 67:24 counsel 12:4 19:19 23:20 28:25 86:6 96:14 county 95:3 couple 34:13 coupled 33:3 court 5:10,13 42:14 43:8 44:17 93:8,12 93:17,24	cover 30:10,11 crc 1:25 95:25 cregan 2:14 cross 86:15 crr 1:25 95:25 cumulative 13:9 14:12,22 15:9 17:1,8 currently 6:11 custom 45:8,12 65:11 67:23 77:7,19 customer 29:19 30:3,8,13,18 31:9,25 85:5 customers 31:17
d			
d 3:1 4:2 42:25 60:25 d.w. 1:25 95:4 95:25 dash 33:10 dashboard 33:15 data 33:4,6,9,13 33:20,23 34:4,8 34:12,13,17 46:5,22,23 49:9 49:14,25 50:21 51:3 52:18,23 53:12,19 54:17 55:2,17 59:22 63:7,21 64:9,16 66:1 71:13,14 72:24 73:11,15			

73:16,22,23 74:1,6,17,20,25 75:8,13 77:11 78:9 79:1 81:16 81:24 84:12 90:23 91:2,3,12 91:15,18,21 date 17:18 31:4 97:24 98:12 david 2:10 day 95:24 98:15 days 96:16 dcarus 2:13 deal 83:19 decision 22:9,13 22:17 declaration 3:9 7:25 8:1,8,10,11 8:20 9:1,5,8,9 9:16,18,22,24 10:6,8,11 12:5 12:11,15,21,24 13:22 14:3,4,6,9 14:15,17 15:4 15:11,16,17,20 15:23,25 16:4,9 16:9,14,16,19 16:20,21,24 17:14 18:14,24 19:16,22 20:6,8 20:12,14 21:3,5 21:9,17,20 22:6 22:15,20 23:3 23:25 24:19 25:2,8,11,15,19	25:21,23,25 26:2,14,18,22 26:22 27:2,6,11 27:14,18 28:19 29:1,9,12,17 32:22 34:7,19 34:22,25 35:8 35:16 39:8,15 40:3,13 41:8,25 42:10 47:16 49:1 50:16 51:9 54:22,25 57:4 66:25 68:15 70:20 73:19 74:9 75:17 79:18 81:1 82:3 83:25 86:20 87:10 88:11 91:7 92:5,5 declarations 7:20 8:19 declare 98:4 deemed 98:6 defendant 31:22 defendants 29:21 definitely 93:13 definitive 27:8 depends 78:11 depicted 63:1 64:14,24 65:6 65:23 deponent 96:13 98:3	depose 42:10 deposed 4:16,24 deposing 42:12 96:13 deposition 1:11 4:21 6:17 12:4 14:7 15:5 19:23 21:1 24:5 29:20 29:23 31:21 41:22 42:2,21 describe 8:12 14:2 59:12 77:6 87:15 described 49:10 55:15 57:10 59:9 65:3 66:22 75:21 77:18 79:16 describes 47:21 51:8,18 52:4 76:24 78:21 79:7 80:18 81:2 87:17 90:13 description 3:7 48:10 55:9 57:18,23 88:13 design 57:16 designers 79:20 80:3 detailed 48:9 74:16 determine 14:15 30:22 78:17 89:21	determines 89:10,15 determining 90:1 development 57:21 device 32:12 33:19,24 34:3,6 34:8,13,15,17 52:19,21 53:20 58:3,5,10 59:5 59:14,20 60:7,9 61:5 67:4 68:6 72:9,11 76:5 81:3,9,10,12,15 81:19,22,25 devices 52:21 53:7 63:17 diagnostic 51:3 diagram 63:12 72:17 74:16 diagrams 63:6 77:1 79:9 different 8:15 9:21 24:14 31:6 37:11 40:20 46:23 51:10,13 53:7 56:10,15 57:11 58:15,20 61:25 62:17 66:23 67:8,18 69:11 77:21 82:16 83:7,11 83:12,15,15 84:22 85:23,24
--	---	--	---

88:19 92:20 differently 14:19 17:23 differing 46:19 direct 32:16 44:2 80:22 directing 19:20 directly 52:8 60:16 63:8 90:10 disadvantages 67:17 disagree 35:22 36:1,22 37:13 37:16,23 38:1,5 38:17 45:20 47:20 61:10 disagreeing 40:16 41:8 83:16 disclose 37:20 80:4 90:15 disclosed 53:2 61:16 62:22 66:5 80:16 81:24 88:17 91:13,16 discloses 37:12 37:16 40:21 43:20 49:24 54:15 77:24 78:2 82:17 84:2 85:19 disclosing 53:24 80:11	disclosure 44:13 44:23 47:14 50:19 58:21 63:10 64:21 65:2,17 67:21 79:13 83:8 disclosures 45:11 discoverable 28:21 discuss 29:19 56:4 86:23 discussed 20:6 63:9 65:9 68:5 68:11 91:13 discusses 53:18 72:16 discussing 51:1 87:12 discussion 42:12 48:6,8,19 51:7 66:14 87:1 88:11 discussions 53:11 document 8:6 16:12,15,18 18:19 22:8 25:18 39:10 documents 6:15 7:4 8:4 9:14,21 10:4,16,20,21 12:9,19 16:7 18:12,22 20:11 21:18,20,21	22:5 23:2 25:14 doing 6:5 73:2 78:12 doppelt 2:11 double 38:8 41:1 download 47:18 47:22 49:4,17 49:23 51:20 52:5 56:19 58:2 59:2,13 60:8 86:19 downloaded 49:7 90:13,16 downloading 49:25 55:11 59:19 86:24 dozen 4:25 dr 4:14 28:22 41:20 42:5 43:15 66:13 86:4,14 93:3 draft 8:16 drafted 8:8 drafter 8:14 drafting 8:10,13 drafts 28:21 due 93:10 duly 4:6 duplicative 13:2 dyer 2:11	e.g. 45:8 52:20 65:11 72:24 74:20 earlier 9:7 17:10 63:9 65:9 65:21 66:14 68:12,24 73:13 79:5 easy 30:11 53:22 effort 57:19 89:17 either 7:11 16:13 43:2 60:16 65:6 electing 68:6 electrical 61:24 89:14 element 32:24 72:2,3 77:25 elements 45:9 45:23 46:17,18 46:24 47:2,6 48:9 65:13,15 email 7:2 43:4 embodied 37:12 37:17 40:21 43:20 82:18,21 embodiment 62:9,19,23 64:21 65:1,16 66:4 72:14 80:15 83:2,9 89:15
		e	
		e 2:1,1 3:1,6 4:2 4:2 52:19 61:1 97:3,3,3	

embodiments 52:13 53:3 54:1 57:10,11,17 62:14,19 65:17 66:4,22,23 72:13 80:9 83:12 84:6,18 84:22 emphasized 83:4 employee 95:18 employees 31:22 enable 54:6 enabling 49:9 49:14,25 encompassed 39:13 engineers 79:21 80:3 entire 45:4 54:21 61:21 entirety 54:24 entities 7:12 57:12 66:24 entitled 20:5,9 20:12 equating 49:8 equipment 48:7 52:14 54:2 80:10 errata 96:11,13 96:16 errors 67:5	essentially 30:4 establish 89:17 event 74:25 everybody 6:8 evidence 26:4 29:13 30:13,16 31:9 34:20 36:24 37:2 39:24 40:8 41:16 61:9 68:10 82:6,11 82:25 85:5 ex 11:2 exactly 71:11 examination 3:3 3:4 4:9 19:20 86:12,15 examinations 3:2 examiners 19:12 example 7:6 13:8 47:12 52:17 53:22 59:1 60:6,23 72:15 75:21 78:13 84:16 92:13 examples 54:4 62:14 exceeded 91:18 91:22 execute 89:25 executed 8:22 52:14 54:1 80:9	execution 54:6 exemplary 62:23 exhibit 3:7,8,9 3:10 6:18,22,22 6:22 7:22 8:1 9:11 11:11 13:2 13:4 14:21,22 15:24 16:3,8,12 16:25 17:18,20 18:3,8 25:11,13 25:17,22,25 26:5,7,8,10,16 26:17,20 27:9 27:12,13,16,19 34:19 35:4,6 43:16 44:1 89:3 92:12,21 exhibits 11:5,8 21:21 exist 67:19 existence 73:21 experimentation 57:19 expert 1:11 7:12 14:6 15:4,5 23:15 29:20 81:4 explain 31:3 explained 54:3 54:20 59:7 83:1 explaining 30:24 74:8 explains 62:10	explanation 62:4 63:5 73:20 express 74:16 75:3 76:16 expressed 34:22 expressly 16:13 47:21 51:8,18 52:4 76:9 external 72:23 76:1,2,3,10 f f 2:10 fabricated 84:9 fact 11:4 33:23 67:21 72:22 82:21 facts 23:6 61:9 68:10 82:25 fails 96:18 fair 9:5 10:9 14:10 16:11 18:16 21:2 27:10 36:20 feature 42:19 features 77:19 88:3 february 1:16 4:1 feel 39:2 57:20 60:15 65:25 68:24 85:2,16 85:17,19 fewer 62:14 fig 62:13 77:19
---	--	---	---

figure 37:23 42:17 52:4 59:21 60:10,24 61:3 62:25 63:2 63:3,13,16,17 63:18,20 64:2,5 64:6,8,10,12,13 64:14,15,16,24 65:6,22 71:21 71:21,21 72:17 75:22 77:5 78:4 78:5,23,24 79:4 79:13 84:1 90:24 figures 48:14 57:13 58:9 59:3 59:7,9,17,18 60:15 63:5 65:2 65:24 66:2,24 77:2 79:10 file 93:14 filing 93:10 final 93:13,16 93:17,22,25 finally 90:17 financial 95:19 find 23:25 87:25 findings 21:15 fine 7:5 firmware 45:18 46:4 47:21 49:7 49:9 50:17,19 51:2,7,19 52:2,5 52:7,24 53:1,5 53:10,18,24	54:5,8,13,15 55:1,11,16,23 56:2,18 57:1,11 57:25 59:13,20 59:24 60:9 63:2 63:11,15,22 64:7,14,18,25 65:23 66:3,5,15 66:17,23 67:3,4 83:14,19 84:3 84:10 85:21 86:19 88:22 89:1,23 90:8,9 90:12 first 4:6 8:7 10:2 11:18 22:7 30:4 32:8 47:17 52:11 68:2 five 11:2,6 12:14 86:2 fix 57:2 67:5 68:17 69:9,12 70:11,14 87:5,7 88:18 fixed 87:8 fixes 57:6 59:2 68:8 fixing 86:23 fl 96:15 flexibility 79:20 80:3 flick 35:20,25 36:24 37:8 38:3 38:7,10,14,17 38:23 39:23	40:7,15 41:3,9 41:15 83:6 floor 2:5 florida 2:12 focus 7:24 9:8 21:24 71:3 follow 26:19 89:8 followed 13:13 following 9:10 follows 4:8 foregoing 95:7 95:13 98:5 form 16:17 23:2 26:24 27:20 28:7 29:2 30:15 30:23 31:11 32:14 33:11,25 37:1,18 38:4 39:1,9 40:10 48:11,21 49:11 50:3 53:13 56:12 61:8 62:8 67:15 68:9,19 69:3,10,21 70:5 70:13 73:6 77:8 78:10 79:2 80:20 81:13,20 82:24 85:8 format 8:18,18 47:2 54:16 formatting 50:21 51:2 53:12,19 55:2 55:17 78:9 79:1	84:17 formed 14:14 85:1 forming 9:21 10:22 11:24 18:13,23 21:18 22:5,14 25:6,14 26:8,17 27:5,13 29:11 35:7 82:14 forth 11:16,21 16:13 95:9 forths 8:16 forward 20:17 found 19:13 24:17 45:3 83:23 four 17:17,24 18:5,7,11,18 19:4 21:15 22:10,13,18 23:1,8,16 24:16 29:18 30:6 31:1 42:24 91:7 fourth 29:23 framed 40:25 40:25 friday 93:14 front 6:10 8:5,6 full 95:14 function 63:6 functionality 62:21 64:20 89:25
---	---	---	--

further 18:11 52:9 56:16 77:11 84:6 86:5 92:22 93:2 95:17	go 13:6 20:9 23:20 35:10 43:8,10 50:8 58:1 59:8,17 66:7,10 70:22 72:15 77:16 80:7 86:8	h h 3:6 97:3 happening 61:15 happy 7:9 hard 74:11 84:8 hardware 45:22 52:8 53:5 54:5 57:2,12,16 66:24 69:23 90:10 head 5:18 17:25 44:6 headings 14:8 hear 42:2 heard 23:11 help 80:23 84:1 hereinabove 57:10 66:22 hereto 98:7 histories 11:6 history 11:11,16 12:1,8,18 17:17 26:3 hold 51:16 64:16 host 89:10,12,16 89:22 90:1 hour 35:10 hunt 13:1,9 14:21 15:9 17:1 19:14 23:9,17 24:17 36:23 37:9,11,16,19 40:14,19,21	43:16,20,25 44:10,13 45:6 46:15 47:8,11 47:20 49:8,24 50:8,19,20,22 51:8,11,18 52:4 52:10,12,15 53:2,9,17,20,23 54:14 55:15,18 56:22 57:5,8 58:9,18 59:3,5,6 59:20 60:24 61:16,18 62:5 62:10 64:23 66:4,15,16,20 67:21 72:15,15 72:21 73:12,12 73:16 74:17,19 75:3 76:8,15,18 76:23 77:6,9,11 77:13,24 78:20 79:6,16,22 80:4 80:7,11,15,17 80:24 81:2,9,12 81:18,18,21,24 82:15,17 83:3,9 83:12,21,24 84:2,6,18 85:19 85:22 87:12,15 87:17,22,25 88:1 89:3 90:13 90:15 91:13,16 92:3 hunt's 14:23 35:20,25 37:8
g	goes 51:1 56:16 going 7:24 9:4 19:18,24,25 20:20,20 28:22 35:10 41:19,19 41:21 42:18,19 42:21 46:5,6,24 48:25 50:9,12 61:4 64:18 65:20 66:3 71:25 84:23 88:7 89:7 93:9 gps 35:20,25 37:8 38:2,7,10 38:13,16,23 39:23 40:7 41:3 41:9,14 83:6 great 42:16 greenfield 2:4 7:16 guess 10:2 67:13 78:22 guidance 20:22 42:21,25 guide 20:23 42:21,23,24		
g g 4:2 gates 46:19,19 46:19,20,20 general 42:8 48:6,20 generally 60:21 61:15 generating 81:3 81:10 generic 48:18 48:19 74:1 geotab 1:4,4 4:18,18 7:12,14 7:17 13:18,24 29:7 96:4,4 97:1 97:1 98:1,1 geotab's 6:15 8:9 17:21 21:22 27:3,24 28:8 getting 7:3 19:19 34:6 70:21 gilchrist 2:11 give 5:19 8:21 23:5,5 45:2 92:24,25 given 4:20,20 21:6 98:9			

38:2,7,10,13,16 38:23 39:22 40:7 41:3,9,14 47:14,19 49:4 49:17,19 55:9 55:11 56:6,18 58:14,21 59:13 60:9 63:9 64:21 65:1,17 71:13 72:9 75:7 79:12 83:5 88:12,13 88:17,22 90:23 91:19,22	66:22 78:18 79:23 80:13 83:13 84:7,19 85:21 implementing 62:21 76:24 78:21 79:7,16 79:19 80:1,4 91:5 implication 17:9 implied 88:10 92:5 implies 73:24,25 include 20:7 54:5 62:20 included 11:20 12:10,20 14:14 15:15,17,18 16:8,19 18:12 25:21 26:10 27:3,5 31:1 37:20 39:17 55:10 71:14 76:17 83:2 88:12 includes 47:14 59:21 63:10,24 64:11 87:15,22 including 65:14 72:22 77:25 87:18 incorporated 77:7 increases 67:24	indicate 10:23 84:15 indicating 62:5 individual 59:13 60:25 61:6 63:7 77:19 inductors 46:21 information 18:7 19:9,11 20:10,15 21:6 41:16 infringers 82:11 82:13 infringing 84:25 85:14 initial 55:22 71:5 initially 11:10 67:3 inside 69:23 70:7,10,16 72:7 75:6,25 78:6 install 56:20 installation 55:10,22 56:20 installing 47:21 51:19 52:5 55:12,14 58:11 instruct 20:19 28:22 41:20 instructing 24:6 instruction 19:25 20:24 49:17	instructions 47:18 49:4,24 54:9,13 integrated 45:7 61:22 62:2,6 63:8 65:11 84:10 integrating 67:22 intend 26:21 intended 27:18 interest 95:19 interface 59:12 59:19 60:6 61:24 89:14 interject 19:18 internal 72:22 76:13,13 interpret 62:4 interrupting 5:7 invalid 23:9 invalidity 7:21 11:24 22:19 24:2,3 42:9 invention 57:17 58:19 80:13,19 84:7,19 88:2 inventor 17:2 inventors 13:3 14:23 investigate 31:8 investigated 31:15 investigation 30:21
i			
identification 6:19 identified 10:11 11:5 12:13 29:7 81:9,11 identify 54:25 ii 14:9 15:2,19 32:13 33:5,7,9 33:24 34:3,9,14 34:16 illness 6:1 illustrated 57:12 66:24 impact 24:18 implement 57:17 76:23 78:14,15 79:6 91:2 92:3 implemented 45:7 53:4 57:10 62:22 65:10			

involve 53:4 involving 29:22 31:22 ipr 17:19 ipr2023-00504 1:6 ipr2023-504 4:18 issue 9:7 20:23 issued 13:2 14:23 17:1 18:18 19:3 issues 24:1 28:4 28:17 italicizing 83:4 items 29:4,7 39:16 84:20	judge 5:23 jury 5:23 k keep 20:20 24:8 41:19 kind 48:6,19 73:14 knew 92:7 know 5:1,12 6:7 6:9 7:5,6 11:19 13:13 17:8,21 17:24 18:1,6 19:2,7,7 22:25 23:11,12 27:22 36:3,8 39:15 42:4 45:3 48:22 63:21 65:20 83:22 89:4 known 29:18 31:4 32:1 l lack 85:13 lake 95:3 language 22:2 46:15 56:8 laptop 52:18 laptops 62:20 large 10:20 latitude 20:13 layer 76:23,25 78:9,22,25 79:1 79:6,8,17 layers 78:14,16 78:17 79:19,23	80:2,5 legal 14:24 15:12 17:5,9 32:15 34:1 49:12 96:23 licensing 26:3 29:13 82:7,9 likely 58:19 likewise 5:8 limit 20:1,24,25 41:21 limitation 20:19 32:5 limited 12:4 28:25 29:3 79:13 85:5 line 43:11 44:7 45:6 50:13,13 51:1,11,12 52:11,15 53:25 57:8 59:16 60:11 61:18 62:11 63:4 65:10 66:20 67:22 68:3 71:22 73:17 77:17 80:8,23 84:6 88:1 89:4 89:18 91:6,13 92:3 97:4,7,10 97:13,16,19 lines 48:12 52:9 53:7 54:4 60:14 60:14,15 92:13	link 43:2,3 71:13 72:24 73:11,15,16,22 73:23,25 74:6 74:17,20,25 75:8,13,25 78:9 79:1 90:23 91:2 91:3,12,15 links 71:14 list 9:14 10:3 27:23 28:3,17 84:20 listed 21:19 25:17 listing 9:20 litigation 29:21 31:22 little 14:18 44:22 llc 1:7 4:15 96:4 97:1 98:1 loaded 84:10,11 local 6:12 located 75:23 76:10 location 51:3 80:12 logic 63:6,12 77:1 79:9 long 9:24 look 6:23 8:25 9:12 32:23 60:10,23 62:25 63:23 73:11 77:16 92:4,25
j			
january 8:23 9:2,16 10:5,6 12:14 14:3 15:11 16:1,4,16 19:16 21:16 22:20 24:19 25:1,19 26:2,14 26:22 27:11,17 28:19 29:1,8,12 34:22 39:7 41:25 jeffrey 1:12 4:5 4:13 8:2 96:5 97:2,24 98:2,4 98:12 johnson 1:25 95:4,25			

looking 6:8 29:16 45:5 47:16 55:7 60:19,20,20,23 60:24 63:18 65:22 76:21 looks 8:22 29:25 72:16,20 loop 66:14 love 42:2	51:20 52:6 55:10 56:20 62:7 86:19,24 90:16 manufactured 45:13 46:3 61:5 69:17,19,24 70:3,12,16 82:23 manufacturing 67:24 90:14 march 95:24 96:3 marked 6:19 material 10:13 15:14 17:13 27:4 materials 9:11 9:19 10:23 14:16 16:3 22:1 25:20 matter 12:5 21:3,5,9 mean 10:14 15:7 16:11 19:24 20:1 28:13 60:14 69:8,17 76:5 84:21 meaning 71:13 means 6:6 7:2 24:4 36:8 47:11 meant 39:12 mechanical 61:24 89:14	mechanism 58:10 media 46:23 60:7 medication 6:2 medium 84:12 meetings 8:16 merely 62:9,14 65:16 66:4 78:16 80:15 merge 42:17 meters 76:6 microcomputer 52:18 microcomputers 62:20 microcontroller 72:6,23 78:1,6,8 78:12 microprocessor 47:5,13,15 51:2 54:9,14,16 55:1 55:12,14 56:18 59:23 63:10,25 64:11 65:15 71:9 72:7,10,24 75:4,9,12,21,22 75:24 76:9 78:14 87:16,18 87:23 88:3,8,12 88:15,16,25 89:9,15,21,24 90:6 microprocess... 47:4,9 88:5	miller 1:12 3:9 4:5,13,14 8:2 28:22 41:20 42:5 43:15 66:13 86:4,14 93:3 96:5 97:2 97:24 98:2,4,12 minicomputer 52:18 minute 23:21 35:11 36:2 66:8 86:2 minutes 40:24 43:19 60:1 86:8 92:25 mischaracteri... 16:5 22:22 30:16 37:2 68:20 82:25 missing 15:22 17:3 model 78:15,16 modem 50:22 51:4,5 53:12 54:17 55:3,18 58:21 60:11,19 84:17 module 62:1 modules 37:12 37:17 40:21 43:20 61:25 63:7 77:20 82:17 moment 27:8
m			
ma 2:6 machine 6:12 84:12 madam 93:8 made 12:25 27:18 30:1,7 37:13 45:23 59:24 89:1 98:5 mail 52:19 make 5:2,5,15 6:2 7:3 13:5,16 18:17 28:3,17 31:2 37:24 39:6 41:11,15 46:1 49:15 66:13 69:15 70:23 75:18 76:16 81:18 makes 53:6 making 58:5,7 manages 61:23 managing 77:20 manufacture 47:3,23 49:8			

monitoring 89:11 motion 20:24 move 41:21 moving 20:16 multi 33:3,22 60:18 multiple 67:22 multiplexor 77:25 78:5,8,12 mvcc 55:11	needed 7:8 75:1 91:19 needs 88:15 negative 38:8 41:1 network 52:23 92:10,14 networks 92:18 never 76:24 78:20,21 79:6 79:16 new 58:15,18 newer 33:14 nonobvious 24:18 30:8 nonobviousness 30:2 34:20 36:4 38:25 nonvolatile 84:11 nope 23:22 nos 6:18 notary 98:13,19 note 96:10 noted 98:7 notes 92:25 95:12 notice 25:10 number 8:15 10:20 18:18 21:15 22:10,18 23:8,16 24:16 48:13 50:13 53:7 78:17	numbered 48:9 71:20 77:25 numbers 51:11 o o 4:2 o0o 3:11 4:3 94:3 oath 5:22 6:3 95:9 obd 32:13 33:5 33:7,9,14,24 34:3,9,14,16 objection 12:3 12:16 13:6,12 14:24 15:12 16:5,17 17:5 18:9,20 19:5,17 22:21 23:19 24:20 25:3 26:24 27:20 28:7,20 29:2,14 30:15,23 31:11 31:18 32:14 33:11,25 34:23 36:5,16 37:1,18 38:4 39:1,9,25 40:10 41:18 48:11,21 49:11 50:3,23 53:13 53:21 54:18 55:4,19 56:12 61:8 62:8 67:15 68:9,19 69:3,10 69:21 70:5,13 73:6 77:8 78:10	79:2 80:20 81:13,20 82:24 85:8 obligation 36:15 obvious 36:13 58:13,23 obviously 6:5,9 10:20 obviousness 23:17 occur 33:7 65:16,18 offer 14:20 15:10 26:12 27:11 28:18 82:5 offered 4:17 12:24 24:19 26:13,20 27:16 27:17,19 29:11 85:12 offering 21:16 22:18 24:2 25:18 28:25 41:17 84:24 offers 23:25 office 1:1 11:17 11:22 okay 4:20 5:1 5:10,11,20,21 6:1,5,25 7:10,19 7:24 8:12 9:3,6 10:9,16 12:12 12:23 16:11,23 17:23 18:2 19:2
n	n 2:1 3:1 4:2 name 4:11 8:22 95:23 near 19:19 necessarily 68:6 69:7 73:24 78:17 necessary 46:13 57:2 67:3 81:16 85:2,16,18 98:6 need 5:15 7:4,5 7:7 8:19 24:21 29:19 30:3,9,14 30:18 31:9,25 39:2,11 41:20 47:18 49:4,17 49:23 50:4 56:17 58:1 63:23 66:17 72:1,5 74:22 76:5 85:5 89:24 93:9,12,13		

22:16 23:10,18 25:22 26:1 29:25 33:21 35:12,17,18 36:2 37:22 38:21 39:20 40:5 43:17,24 44:5,8 45:21 49:22 50:8,11 53:17 55:7 60:4 61:13 63:14 64:12 66:7 67:11 68:24 69:6 71:4 72:14 72:19 74:3,11 76:19 77:16 81:18 86:7,10 86:16,17 87:2,9 89:3,7,21 90:17 91:1 92:6,12 93:1,8 omega 1:7 4:15 14:7 29:22 30:1 30:7 31:1,22 35:18 37:6,13 47:17 56:5 58:17,24 68:13 83:5 96:4 97:1 98:1 omega's 15:5 29:13,20 30:12 31:10 35:22,24 36:22 38:17 39:24 40:16,19 41:8 49:3,16,20	49:23 50:2 56:9 81:4 82:15 once 45:12,16 61:5 69:16 70:11 82:22 ones 18:13 21:19 22:1 ongoing 37:10 40:20 82:16 83:5,7 ooooo 1:3 2:17 open 6:24 opened 6:15 operation 89:9 opine 14:4 15:18 17:12 27:4,24 29:4 31:24 84:2 opined 91:4 opining 31:13 74:15 opinion 8:14 9:15 14:11 15:8 15:11 16:24 27:5 28:4,5,10 34:19 36:21 37:24 38:12,22 39:21 40:5 41:2 41:5,17 42:2 49:6 68:13 75:20 82:5,10 82:14,19 84:24 85:1,4,9,12,15 87:25	opinions 4:17 8:11,16 9:22 10:8,22 11:24 13:24 14:14,16 14:20 15:3,16 16:16,20 17:10 18:13,23 19:15 21:5,16,19 22:5 22:14,19 23:3 24:1,2,3,18 25:7 25:15,19 26:9 26:12,13,15,17 26:18,20,23 27:1,14,16,17 27:19 28:18 29:11 34:21 35:7 42:9 opposed 58:3 80:14 opts 68:5 oral 95:15 orange 2:11 order 5:13,14 33:17 46:13 59:1 60:8 ordered 93:22 ordinarily 6:6 ordinary 35:19 36:23 37:7 38:1 38:6,9,15,18,22 39:22 40:6,14 40:17 41:13 57:9,15,22,24 58:14 66:21 67:1 71:13,18	orlando 2:12 osi 78:15 outcome 17:24 outside 75:4,23 76:10 overall 63:19 overnight 93:20 own 28:17 owner 1:8 2:8 10:3,7 11:17,22 12:25 13:11,21 14:6 28:2,14,15 30:17 37:10 50:5 56:14 58:16 owner's 12:23 13:19,25 15:4 68:14
p			
p 2:1,1 4:2 p.a. 2:11 p.c. 2:4 p.m. 1:17 94:2 packaged 72:11 page 3:2,7 5:3 8:23,25 9:11,17 13:17 15:19 42:24 97:4,7,10 97:13,16,19 pager 52:20 pages 10:21 14:8 15:2 panel 19:12 23:7,16 24:15			

paper 10:4 13:20,22 28:3 paragraph 29:16 30:1,5,25 32:4,9 35:16,24 36:21 37:6 38:20 42:6 43:25 44:3 47:17,25 48:8 49:1,13,15 50:10,25 51:9 51:11,23 54:8 54:11 55:7,8,21 56:13,16 57:7 58:12 70:19 71:11,17 75:7 75:15,17,19 76:19,21,22 77:4 79:18 81:1 81:6 82:2,6,8,10 84:23,24 85:2,4 85:10,13,15 86:23 87:10,20 87:21 91:8,11 91:14,17,25 92:4,19 paragraphs 54:20 56:3,4,7 71:3 86:20 87:11 88:10 part 11:23 13:18 16:15 21:8 22:18 48:2 50:15 51:14 63:13,23,24	64:10 84:7,14 84:19 88:17 92:1 parte 11:2 particular 7:19 47:8 50:9 65:24 parties 95:18 parts 62:18 party 29:21 31:21 passage 81:2 past 36:7 patent 1:1,2,6,8 2:8 7:7,21 10:3 10:7 11:2,12,16 11:17,21,22 12:2,23,25 13:1 13:9,9,11,19,21 13:25,25 14:5 14:11,13,21 15:4,10 19:13 19:14,14 22:13 22:19 23:9,10 23:17,18 24:17 28:2,14,15 30:8 30:17 31:4 32:2 32:12,17,20 36:24 37:10 40:9 43:16,25 46:16 49:10 50:5 53:3 56:14 57:24 58:16 68:13 71:21 76:18 81:22 82:7,12,14 85:7	92:20 patentable 19:13 patents 1:7 4:15 13:2 14:22 17:1 96:4 97:1 98:1 pause 42:21 pda 52:19 pdfs 6:24 person 26:15 35:19 36:22 37:7 38:1,5,9,15 38:18,22 39:21 40:6,13,17 41:2 41:13 57:21,24 58:13 67:1 personal 52:18 petition 42:10 petitioner 13:10 petitioner's 8:2 petitioners 1:5 2:3 ph.d. 1:12 4:5 96:5 97:2,24 98:2,4,12 phd 8:2 phone 43:6 52:20 phrase 39:18 physical 58:3,4 59:12,19 60:5 60:14 76:23,25 78:22,25 79:6,8 79:17	physically 56:10 58:10 59:1,1,4 60:8 73:10,14 74:4 76:1 piece 59:8 pieces 83:23 pin 60:18 pins 73:4,24 place 47:9 53:17 95:8 placed 95:9 please 23:15 79:25 plenty 20:13 plug 29:17 30:18,25 31:3 31:16 32:1,5 33:17,18 34:5 plugged 32:13 33:24 plugging 33:19 34:8,14,15 point 19:19 29:23 30:4,11 42:24 53:17 56:22 78:2 pointed 42:6 60:4 points 29:19 30:6 31:1 por 8:3 42:7 56:9 port 33:5,10,14 33:18,19,24 34:3,9,14,16
--	--	---	---

portion 50:19 posa 56:25 58:17,19,22 59:7 71:7 91:1,5 92:2 posas 55:9 56:1 71:12 92:7 position 20:5 21:2 possible 61:5 90:11 post 55:10 56:20 86:19 practice 20:23 40:9 42:20,23 42:24 prefer 93:5 preparation 6:17 preparing 9:15 9:24 10:1,5 26:2 present 52:13 54:1 57:17 80:9 84:7,19 presented 42:9 primary 8:13 prior 7:12 10:10 11:9 25:16 31:4 privileged 28:20 probably 5:1,12 24:14 44:4,7 proceed 20:2 proceedings 18:4 95:7,11,15	processer 50:16 processes 52:12 53:25 80:8 processor 52:20 product 28:21 products 40:8 84:25 85:6,14 professional 95:5 program 6:14 46:9 84:10,11 programmable 48:6 52:14,21 54:2 67:7,12,17 80:9 87:12 programmed 88:6,15 89:23 89:25 programming 70:2,4 88:11 90:3,4,6 programs 45:24 46:8 proper 8:17 proposing 71:6 prosecution 10:24 11:6,11 11:15 12:1,8,18 14:12 17:17 prosecutions 15:10 protocol 37:17 40:21 43:20 79:19,23 80:2,5 82:17 89:10,13	89:16,17,22 90:1 protocols 37:12 37:20 45:6 58:15,18 62:12 62:15 65:10 77:20 82:21,22 83:12,13,15,20 84:3,16,17 85:24 91:20,23 provide 5:17 7:9 13:24 14:11 15:3,17 26:22 28:5,10 35:7 48:6 90:23 91:7 92:8 provided 7:20 13:19 15:23 16:1,21 17:11 17:20 18:23 19:8,11,16 21:21,22 22:6 22:14,25 25:7 26:4,15,17 27:1 27:14,23 28:9 31:21 34:19 54:4 57:23 60:11 62:10 63:12 91:20 provides 58:6 75:11 76:6 79:20 80:2 88:2 91:12,15 providing 30:6 67:2 82:18	ptab 2:6 17:19 96:2 public 98:19 pull 72:17 pulse 89:12 purpose 55:1 69:9 purposes 21:15 25:18 26:2 36:20 put 8:17 20:2,15 putting 67:4
q			
question 13:14 14:19 17:22 20:1 21:12,23 21:24 22:16 24:11,12,23 27:15 31:6,7,13 35:1 39:4 40:25 42:8 44:9,16 50:6 51:15 55:13 58:25 65:25 67:11 69:11 71:5 74:4 questioning 20:25 24:4 41:22 questions 5:4,5 5:7,20 6:3 7:8 86:5 92:22 93:2 quote 31:20 quoting 56:8			

r	reasons 20:14 55:22 91:7 recall 11:19 17:25 18:10 22:25 25:5 29:10,12 31:12 31:15 36:17 76:11 86:18 87:2,4 88:21,24 89:1,2 90:19,25 receipt 96:17 received 18:4,6 18:11 receiving 18:8 52:22 recently 19:3 recess 35:13 43:13 66:11 70:24 86:3,11 recite 32:12 33:23 35:24 recites 32:5 reciting 33:22 recognize 58:17 recognizing 68:4 recollection 24:25 record 4:11 5:9 5:15 16:6 20:3 22:22 23:20,23 43:9,10 44:19 66:10 68:20 70:22 82:25 86:8 95:15	recross 92:23 reduces 67:23 reexam 17:17 17:24 18:5,7,11 18:18 19:4 reexamination 18:17 19:3,12 19:12 21:15 22:10,13,18 23:1,8,16 24:16 24:22 reexaminations 11:2 reexams 11:6 12:13 refer 9:4 50:5 66:19 reference 15:8 16:23 18:17 25:11 32:24 39:6 45:15 48:13 50:15 51:10 52:2 56:14 72:21 76:16 81:19 referenced 11:10 12:1,14 20:11,14 40:2 50:20 68:12 81:12 96:6 references 36:14 40:18 72:21 referencing 21:7 51:16	referring 9:18 32:17 51:13,22 52:10 53:10 65:9 66:25 81:8 84:15,22 refers 73:16 77:9,11,13 regan 2:10 regardless 25:6 registered 95:5 regularly 66:17 relate 53:11 related 7:20 14:7 relates 49:24 50:20 relative 95:18 relatively 5:5 relevance 29:15 50:24 relevant 19:15 reliability 67:24 relied 22:12 84:2 remember 11:21 21:11 43:22 remotely 6:6 repeat 17:10 24:12 44:18 76:20 79:25 repeatedly 42:6 replace 58:14 58:20,23 70:15
----------	---	---	--

replaced 68:12 69:17 83:10 replacing 56:10 56:15 58:21 59:8 69:13 reply 3:9 8:2 9:1 12:5 13:25 15:4 19:21 21:3,5,9 23:25 reported 1:25 reporter 5:10 5:13 42:14 43:3 43:8 44:18 64:3 93:8,12,17,24 95:5,6 reporter's 95:1 represent 63:6 representing 4:15 reprogramma... 45:12 67:13 reprogrammed 45:18 46:14 47:2 62:7 68:7 68:25 69:7,20 87:3 88:14 reprogramming 47:7 87:6,8 88:16 requested 95:20 95:22 required 91:22 98:13 requirement 20:18	requirements 67:18 requires 81:24 respect 44:9 64:8 65:2 respond 13:24 responded 30:8 responding 42:6 response 10:3,8 12:23,25 13:11 13:19,22 14:1,6 15:3 26:13,23 27:12 28:3,6,14 28:15 30:17 37:10 50:5 56:14 58:16 68:14 responsive 28:18 rest 17:21 75:5 rests 9:15 result 23:1,9 30:2 82:15 resume 86:9 retained 7:11,14 7:15 return 96:13,16 review 24:21 25:6 28:14 34:24 35:4 39:2 39:11 45:4 56:24 95:20,21 95:22 96:7 reviewed 10:4 12:8,9 28:15,16	reviewing 11:19 right 4:14 6:23 7:9 8:24 9:8 11:7 13:20 15:24 16:4 21:11 22:2,3,3 23:6 25:19,23 26:23 27:12 28:14 30:10,14 33:10,18 35:4,9 35:15,23 43:6,6 43:15,22 50:6 54:10 55:3 56:11 60:9 65:4 65:7,8,24 67:7 68:8 69:16 71:2 72:3,11,25 74:23 76:16 83:21 84:17 85:25 86:25 87:13,20 92:10 93:1,4 roanoke 70:22 room 6:7 rough 93:15,19 93:20,24 royalties 29:13 82:7,9 royalty 26:4 rpr 1:25 95:25 rsanturri 2:13 rule 20:18 rules 5:2 run 5:2 46:8 53:1	running 6:12 45:24 46:9 52:8 63:11 88:8 90:5 90:10 runs 6:14 rush 93:9 ryan 2:9 4:14
			s
			s 2:1,10 3:6 4:2 97:3 sacks 2:4 salt 95:3 santurri 2:9 3:3 4:10,15 6:20 12:6,22 13:7,15 15:6,21 16:10 16:22 17:15 18:15 19:1,10 20:4 21:10 23:4 23:22 24:6,10 24:13,24 25:9 27:7 28:1,11,23 29:5,24 30:20 31:5,14 32:3,18 33:16 34:10 35:2,9,14 36:10 36:19 37:14,21 38:11 39:5,19 40:4,23 41:23 42:16 43:12,14 44:20 48:16,24 49:21 50:7 51:6 51:24 53:16 54:7,23 55:6,24 56:21 58:8 60:2

60:3 61:12 62:24 64:4 66:7 66:10,12 67:20 68:16,23 69:5 69:14 70:1,9,18 70:21 71:1 73:9 77:15 78:19 79:11 80:21 81:17 82:1 83:17 85:11 86:1,4,10,18 87:2 88:21 90:19 92:23,24 93:3,8,13 sat 28:2,13 saw 42:23 saying 40:13 41:7 46:25 57:20 71:18,22 74:1 78:23 79:12,15,16 says 46:16 47:12 51:18 52:12 53:25 57:8 61:21 62:1 64:23 66:16 73:17 77:17 79:22 84:6 87:22 92:7 schematic 72:17 scope 12:3,16 13:12 18:9 19:5 19:17,22 20:1 22:21 23:19,24 24:5,20 28:24	29:14 34:23 36:5,16 37:1 39:25 40:11 41:18,22 42:1 50:3,23 53:21 54:18 55:4,19 61:9 81:14,20 second 7:25 36:7 51:16 83:18 92:7 secondary 34:20 36:4,8,15 36:25 38:24 39:3,7,12,14,16 section 30:25 31:3 34:6 40:12 47:8 51:17 54:21,21,25 57:3 73:19,20 74:9 91:9,11,14 91:17,24 see 11:4,13,14 14:18 16:23 21:12,24 22:7,8 32:7,25 33:1 47:24,25 51:21 52:1,2 56:25 61:2,3 68:1 71:16,17 72:21 73:1 77:3,4,22 77:23 81:5 84:5 86:5 93:21 seeing 11:21 seek 19:25 20:24	seems 48:5 51:12 53:2 60:13 77:12 seen 62:17 send 7:7 43:4 93:20,23 sense 9:23,25 sent 6:16 96:14 sentence 32:8 52:11 54:11 55:8 65:9 68:2 76:22 77:4 92:7 separate 29:21 61:24 62:2,5 serial 72:25 73:18 74:20 75:8 91:15 92:9 series 5:4 set 16:13 95:8 seven 78:14 several 55:22 shakes 5:18 sheet 96:11 shelf 77:1 79:9 shorten 44:21 shorthand 8:21 9:4 95:5,12 show 58:9 60:15 78:24 shown 59:3 63:3 63:16 77:1 78:24 79:9 90:23 shows 59:18 79:4	sides 72:6 74:23 75:2 sign 93:7,21 96:12 signature 95:20 95:21,22,24 signed 9:1 96:19 significant 79:20 80:3 silicon 45:7 65:11 similar 13:3 58:20 simple 31:16 simply 31:7 single 47:13 61:23 62:6 72:11 88:3 sir 4:12 6:21 16:2 21:11,23 27:15 28:12,16 29:6 32:10 35:15 40:24 41:11 48:1 51:25 53:8 54:24 55:13 71:2 81:7 sit 28:13 skill 35:19 36:12 36:13,23 37:7 38:2,6,9,12,15 38:18,22 39:22 40:6,14,17 41:2 41:14 57:9,15 57:22,24 58:14
---	---	---	--

66:21 67:1 71:18 software 45:18 46:4 47:21 49:7 49:9 51:8,19 52:7,25,25 53:5 53:10,18,24 54:9,13,15 55:1 55:11,16,23 56:2,18 57:1,11 57:16,21,25 58:7 59:5,13,19 59:24 60:8 61:6 63:2,11,15,20 63:22 64:6,13 64:18,25 65:5 65:23 66:2,5,15 66:18,23 67:3,4 67:5 69:8,20 79:20 80:2,5,14 83:13,19 84:3 84:11 85:21 86:24 88:22 89:1,23 90:4,7 90:12 soldered 45:17 solely 62:22 65:21 solution 30:19 31:16 32:6 solutions 29:18 30:25 31:3 32:1 45:7 65:11 96:23	somebody 43:11 59:4 soon 93:15 sorry 5:14 13:10 17:19 25:24 26:7 44:2,4 50:10 57:7 69:18 83:8 sort 5:18 48:18 59:12 73:2 sound 8:24 sounds 42:16 source 55:25 south 2:11 speaks 39:10 spec 50:15 specific 8:18 14:5 24:1 29:4 41:24 42:5,7 55:15 62:12 65:6 84:9 specifically 14:7 34:5 40:13 53:9 54:15 64:24 80:18 82:15 87:22 88:25 specification 45:5 53:9 56:24 59:6,10,11 62:18 71:14 76:6 77:13 88:23 91:21 speculation 27:21	spent 9:24 squash 20:25 start 11:10 21:12 32:19 49:2 69:18 87:1 started 59:16 starting 9:17 44:7 45:5 50:13 57:8 59:16 62:11 63:4 66:19 68:3 77:17 80:7 84:5 88:1 starts 51:1 91:9 91:11,14,17,24 state 4:11 32:4 35:18 47:20 55:8,21 91:9,14 91:18 95:2 stated 25:20 30:18 38:20 49:16 57:3 58:12,17 67:1 68:14 70:14 73:24 74:19,24 75:7 76:9 79:5 82:8 92:11,19 statement 41:24 42:5 53:15 54:12 61:11 68:18,22 74:17 79:4 82:19 states 1:1 45:6 52:16 62:11 63:5 66:20 68:2	80:7,24 84:18 88:2 steer 50:9 stepping 36:2 stop 42:20 43:1 storage 60:7 84:11,12 store 46:21,22 46:23 63:18,21 64:9,16 65:23 66:1,1,5 stored 46:4,6 63:3,15,20 64:19 65:5 66:3 stores 64:6,13 storing 50:16 strike 37:25 64:22 69:18 71:10 structure 62:25 63:1,3 73:14 subject 12:5 21:3,4,9 submitted 17:18 18:3 subscribed 95:23 98:14 subsequent 18:4 substituted 83:10 success 40:8 84:25 succinct 5:6 suggest 47:9
---	---	---	--

suggesting 71:6 74:22 suite 2:12 supplemental 18:7 support 8:2 56:7,23 58:15 83:20,22,23 92:21 supported 62:12,15 supports 56:25 sure 5:3,15 7:3 13:16,16 37:24 41:11,15 42:16 43:3 44:17 46:1 49:15 58:25 60:2 66:13 69:15 70:23 75:18 76:21 suspect 44:17 sworn 4:7 98:14 system 52:16 systems 48:7,19	taken 1:12,16 5:13 35:13 43:13 66:11 70:24 86:3,11 95:8,11 talk 5:16 20:13 90:17 talked 66:16 talking 5:6,8 47:3 56:9 59:2 73:4 81:10 82:20 88:9 talks 57:5 65:5 67:22 tasks 67:9 teaching 75:3 technology 31:10 39:24 40:2 76:4 85:6 tell 4:7 5:24 6:10 41:12 74:4 75:15 86:1 95:10 telling 42:1 ten 21:25 35:11 59:25 66:8 86:8 term 17:9 39:14 47:12 73:23 74:1 81:21 terms 8:13 9:3 49:6 68:4 testified 4:8 testifying 7:1 testimony 4:21 5:9 7:4 20:11	25:16 27:11 29:19,20 31:21 42:25 65:21 81:7,8 87:19 95:15 96:9,17 98:8 testing 89:16 text 7:2 thanks 86:7 thereof 95:16 thereover 33:4 thing 5:18 things 10:3 20:7 21:8 67:10 think 7:20 20:12 21:4,25 23:24 31:6 32:19 35:3 41:19,20 42:17 43:18 47:11 50:4,14 53:22 59:6,15 63:22 71:11 73:12,23 74:14 third 29:21 31:21 thought 28:5 91:5 three 6:15,24 thursday 1:16 93:16 tied 48:9 time 20:22 25:1 30:11 32:1 42:11 58:19 69:19 73:3 95:8	95:9 96:18 timeframe 73:11,13 93:11 96:8 times 4:23 21:25 today 4:17 5:4 5:23 6:3 told 7:6 16:2 21:25 22:4 24:15 28:12 34:18 36:7 took 5:22 top 17:25 45:24 52:8 90:10 topic 88:20 topics 14:5 15:2 15:18 17:11 19:21 27:2,23 28:9 29:8 86:15 towards 44:6 trademark 1:1 transceiver 72:1 72:2 transceivers 74:22 transcribed 95:12 transcript 5:15 93:4,10 95:14 96:6,19 98:5,8 transcription 95:13 transcripts 96:15
t			
t 2:9 3:6 97:3,3 table 9:20 14:8 15:2,7,19 17:12 27:3 take 9:12 26:7 32:23 35:10 60:23 65:20 66:8 78:13 83:10 84:21 86:2 92:25			

transistors 45:8 45:15,16,16,23 46:3,4,7,10,16 47:1,6 65:12 transmission 53:12 54:17 55:2,16,17 transmitted 50:21 53:19 74:2 transmitter 59:21 60:5 75:11,12 transmitting 51:3 52:22 tregillis 25:12 26:4,13 tregillis's 34:18 trial 1:2 20:23 42:20,23,23 true 11:3 23:12 27:23 29:10 30:22 41:6 42:5 55:5 69:1,4 72:12 95:14 98:8 truth 4:7,7,8 5:24 95:10,10 95:11 truthfully 6:3 try 5:6 17:23 24:14 30:7 31:1 39:20 43:6 65:19 80:1	trying 22:2 37:22,24 41:11 41:15 52:3 75:18 78:23 turn 35:15 43:16,24 48:2 61:17 70:19 77:5 82:2 87:9 88:19 89:4 turnaround 93:9 turning 48:25 two 7:20 36:14 40:18 65:24 83:18 92:25 type 44:13 52:7 52:25 74:5 types 46:19 74:11 typically 33:15 91:25	46:1 49:22 57:1 57:22,25 59:8 69:16 73:7 81:3 understanding 36:3,11 37:4 50:1 75:19 81:23,25 understood 30:1 49:15 55:9 56:1 57:15 65:21 67:2 71:12 undertake 30:21 undue 57:19 united 1:1 universal 51:4 update 55:23 56:2,5,17 59:5 61:14 66:17 updated 45:18 58:1 62:7 64:25 66:6 70:11 updates 58:5,7 58:11 59:23 65:15,18 67:2 updating 56:16 57:1 58:2 65:5 67:5 usa 1:4 4:18 96:4 97:1 98:1 use 20:21 39:14 44:11 47:1 55:12,14,15 76:13 81:21	83:2 88:22 91:1 92:8,16 used 10:12 14:15 17:8 18:13 23:2 44:14 47:9 53:10,24 58:5 71:19 73:15,22 74:6,6,10,12,14 74:25 75:1 78:9 78:15 96:19 uses 88:25 using 33:5 44:23 45:7,8,15 46:15 53:4 54:15 65:11,12 67:6 67:12,17 71:8 72:4 80:14,18 83:18 84:2 90:22 utah 95:2 utilize 83:11,15 utilized 83:9 utilizing 71:24 76:4 80:25 85:23
	u		v
	ultimately 35:22 unable 6:2 under 6:3 33:10 42:25 95:9 underlining 83:4 underneath 33:15 understand 4:16,19 5:22,25 8:18 11:1,15 15:23 33:8 37:24 41:12,16	use 20:21 39:14 44:11 47:1 55:12,14,15 76:13 81:21	v 1:6 96:4 97:1 98:1 value 85:6 variety 52:17 vehicle 33:3,4,6 33:10,12,15,20 33:22,23 34:4,8 34:16,17 44:10

44:12,15,25 47:10 56:6 61:22,25 62:13 62:16 71:9 75:4 75:5,6,9,10,13 75:23,25 76:2,3 76:10,13 77:6 77:10,14,18 81:16,23 85:20 88:4 89:11,16 89:22 90:2 91:19,20,23 92:14,17 vehicle's 34:12 34:13 89:12 vehicles 33:13 37:11 40:20 76:14 77:21 82:17 83:7,11 83:15 85:23 vehicular 92:10 verify 96:9 veritext 1:13 96:14,23 veritext.com. 96:15 version 8:21 versus 67:7 84:16 video 1:11 view 23:17 48:18 virginia 70:22	w waive 93:4 waived 95:21 walk 73:20 want 7:2 10:14 20:2,21 21:4 23:7 43:8 49:20 69:15 70:23 72:17 92:23 93:24,25 wanted 27:24 28:9,18 way 5:9 14:2 16:24 33:9,12 33:19 34:12 38:8 39:20 45:16 46:22 48:23 54:16 58:1 60:13 62:22 67:10 73:2 91:5 ways 34:7,12 67:8 we've 62:17 week 93:10 weigh 16:20 welcome 8:25 wichman 2:4 3:4 12:3,16 13:6 13:12 14:24 15:12 16:5,17 17:5 18:9,20 19:5,17 20:21 22:21 23:19,23 24:8,20 25:3	26:24 27:20 28:7,20 29:2,14 30:15,23 31:11 31:18 32:14 33:11,25 34:23 36:5,16 37:1,18 38:4 39:1,9,25 40:10 41:18 42:4 43:10 48:11,21 49:11 50:3,23 53:13 53:21 54:18 55:4,19 56:12 59:25 61:8 62:8 66:9 67:15 68:9 68:19 69:3,10 69:21 70:5,13 73:6 77:8 78:10 79:2 80:20 81:13,20 82:24 85:8 86:7,13 92:22 93:1,6,18 93:19 94:1 96:1 width 89:12 windows 6:11 wired 60:17 71:23 73:25 74:11,13 84:8 wireless 47:22 50:22 51:4,20 52:5,17,19 54:17 55:3,10 55:17 56:19 58:2,6 59:21 60:4,11,15,19	71:14,23 72:4 75:11,12,25 84:17 91:3,10 92:9 wirelessly 49:7 60:16 74:18,21 90:13 wireline 52:17 witness 4:6 12:17 13:13 15:1,14 16:7,18 17:7 18:10,22 19:7 20:5 22:23 24:12,21 25:5 27:1,22 28:8 29:3,16 30:17 30:24 31:12,20 32:16 33:12 34:2,24 35:12 36:6,17 37:3,19 38:5 39:2,11 40:1,12 48:12 48:22 49:13 50:4,25 51:22 53:14,22 54:19 55:5,20 56:13 61:10 62:9 67:16 68:11,21 69:4,11,22 70:6 70:14 73:7 77:9 78:11 79:3 81:15,21 83:1 85:9 93:6,21 95:9 96:8,10,12 96:18
--	--	---	---

wolf 2:4 7:16 wolfgreen.com 2:6 96:2 word 10:12,15 17:8 76:17 83:4 work 5:19 8:11 13:18 28:20 43:4 worked 8:9,15 10:5 works 35:11 wrap 65:19 wrong 24:3
x
x 3:1,6 95:20
y
yeah 48:17 year 33:13 yesterday 6:16
z
zoom 6:6,13 42:19

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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