UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,
Petitioner,
v.
GRAPHITE CHARGING COMPANY, LLC,
Patent Owner.

Case IPR2024-00387
U.S. Patent No. 8,103,391

DEPOSITION OF C. ARTHUR MacCARLEY
Thursday, October 17, 2024

REPORTED BY: RENEE HARRIS, CSR 14168, CCR, RPR
JOB NO. 6969930
PAGES: 1 - 91

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Deposition of C. ARTHUR MacCARLEY the witness herein, appearing remotely from Palo Alo, California at 8:09 a.m. Pacific Daylight Time, on Thursday, October 17, 2024, before Renee Harris, California Certified Shorthand Reporter No. 14168, New Jersey Certified Court Reporter No. 30XI00241200, and Registered Professional Reporter.

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INDEX

EXAMINATION BY:	PAGE
MR. SHAPIRO	5

EXHIBITS

EXHIBIT NO.	DESCRIPTION	PAGE
Exhibit 1001	U.S. Patent 8,103,391	9
Exhibit 1009	EXPERT DECLARATION, C. ARTHUR MacCARLEY	22
Exhibit 1	Borda, M - Rapid Battery Interchange System March 5, 2012	77
Exhibit 2	Cal Poly Racing Partners	82

PALO ALTO, CALIFORNIA;
THURSDAY, OCTOBER 7, 2024;
8:09 A.M., PDT;

C. ARTHUR MacCARLEY,
called as a witness and having been first duly sworn by the Certified Shorthand Reporter, was examined and testified as follows:

EXAMINATION

BY MR. SHAPIRO:

Q. Good morning, Dr. MacCarley.

My name is Jason Shapiro. I'm with the Devlin Law Firm. We represent the Patent Owner, Graphite Charging Company IN Inner Partes Review Number 2024-00387, and this regards U.S. Patent No. 8,103,391.

Could you please state your full name for the record?

A. My name is Carl, spelled C-a-r-l, Arthur, A-r-t-h-u-r, MacCarley.

But I go by "Art."

Q. Thank you.

Have you ever been deposed in connection with an inner partes review before?

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IPR2024-00388

A. Yes, sir.
Q. Okay. That's good.
Then I'll just briefly go over some ground rules to make sure we're on the same page.
Is that okay?
A. Of course.
Q. During the deposition, I'm going to ask you a series of questions. My questions and your answers will be recorded by the court reporter.
And to help the court reporter do her job, it's important that we don't talk over each other. So I'm going to ask that you try to stop and listen while I'm speaking, and I'll do the same for you.
Is that okay?
A. Understood.
Q. It's also important that you speak up and answer my questions orally because the court reporter can't record you nodding or shaking your head. Okay?
A. Yeah.
Q. And if you don't understand a question for any reason, just let me know, and I'll try to ask it a different way.
Does that sound fair?

A. Yes.
Q. And your attorney may object after I ask a question. If that happens, you must still answer the question unless your attorney instructs you not to answer because of privilege.
Do you understand?
A. I understand.
Q. And we'll try to take a break every hour or so. And if you want to take a break at some other time, just let me know, and we'll take one.
The only caveat is that if I've already asked you a question, I'd like to get your answer before we take a break.
Is that all right?
A. I understand.
Q. And do you understand that you may not consult with or confer with your attorney regarding the substance of the deposition at any time during the deposition, including any breaks?
A. Yes. I have been informed.
Q. And you understand that you are under oath, and you are, therefore, legally obligated to give truthful testimony?
A. Yes.
Q. Is there any reason, medical or

otherwise, why you cannot testify fully, truthfully, and accurately today?
A. Not that I'm aware of.
Q. Okay. A couple housekeeping matters.
So if I refer to the "'391 patent," do you understand that I'm referring to U.S. Patent No. 8,103,391?
A. B2, yes.
Q. And if I refer to "this IPR," do you understand that I'm referring to IPR 2024-00387?
A. Yes.
Q. Do you have any applications running on your -- well, do you -- you're in front of a computer; correct?
A. I am. I'm only looking at you.
Q. All right.
A. I have nothing running.
Q. So no other applications on your computer other than Zoom?
A. That's correct.
Q. Do you have any materials related to this IPR around you?
A. I have printed copies of our exhibits, Ferro patent, and my own declaration.
Q. Do you have notes on any of those copies?

A. Other than one or two -- sometimes I add the title to later pages so I don't have to waste time going back.
But other than that, there are some yellow highlights, but that is the extent of it. There's almost nothing.
And I understand these will be available to you afterwards, anyway.
Q. Okay. So you --
MR. SHAPIRO: Counsel, you agree to provide to us copies of the materials that Dr. MacCarley has with him that have been annotated in any way?
MR. STEIN: I don't think he said they are annotated, but I think he said there's highlights.
But if you make a formal request, we'll consider it.
(Exhibit 1009 was received and marked for identification on this date and is attached hereto.)
BY MR. SHAPIRO:
Q. Okay. Dr. MacCarley, I'm sharing with you a document marked Exhibit 1009. Hold on.
A. Be aware, I only have access to the Zoom

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IPR2024-00388

1 window. If you have a separate program for
2 displaying documents, I don't have it.
3 Q. Okay. So you haven't been set up for
4 Exhibit Share and nobody -- are you alone in the
5 room in which you're testifying?
6 A. Myself and Mr. Stein.
7 MR. SHAPIRO: Okay. Mr. Stein, do you
8 have Exhibit Share set up?
9 MR. STEIN: I don't -- I don't have it
10 open right now. I assumed when we get there
11 in the deposition, we can open that. If
12 we're there now, we can get that open.
13 MR. SHAPIRO: Right. So I just -- so
14 what I did is I just shared Exhibit 1009.
15 THE TECHNICIAN: It's right in the chat.
16 If you go in the chat and Exhibit Share,
17 guest access link is right there.
18 THE WITNESS: Oh, there's a link to it?
19 THE TECHNICIAN: Yeah.
20 THE WITNESS: Okay. I will click on it,
21 guest access Exhibit Share.
22 May I suggest you might find it easier to
23 just do standard Zoom sharing in the main
24 window.
25 MR. SHAPIRO: Okay. Well, we were set up

1 with Exhibit Share so I could just drag -- I
2 don't -- well --
3 THE WITNESS: No problem. I have it up.
4 MR. SHAPIRO: Yeah.
5 THE WITNESS: I see a -- I see a page
6 from Veritext that simply has a single
7 folder, EX1009.PDF.
8 BY MR. SHAPIRO:
9 Q. Is this document the declaration you
10 submitted in this IPR?
11 A. Yes. 1009 is the declaration.
12 Q. Okay. In paragraph 34 of your
13 declaration, you state that "claims are construed
14 before the board using the same claim construction
15 standard that applies in district courts."
16 Do you see that?
17 A. I'm going to that page now. Paragraph
18 34, "I understand the claim construction," etc.
19 Okay. That's the third sentence.
20 "I further understand that the claims are
21 construed before the board using the same
22 claim construction standard that applies in
23 district courts."
24 Okay.
25 Q. Can you -- can you please explain to me

1 the "claim construction standard that applies in
2 district courts"?
3 A. The distinction between the two -- it
4 seems to be more of a legal question.
5 I -- being that this case is before the
6 PTAB, I'm not prepared to provide that
7 distinction.
8 I'd refer you to the attorneys on the
9 case, who I would go to for that question, anyway.
10 Q. And what is the claim construction
11 standard that you applied for purposes of your
12 declaration?
13 A. Well, as stated in the declaration at the
14 end of the section you cited, I say, [as read]:
15 "I do not believe that any express
16 constructions are needed and have applied the
17 plain and ordinary meaning of all terms to a
18 person of ordinary skill in the art."
19 Q. All right. Dr. MacCarley, are you aware
20 of any circumstances in which courts depart from
21 the plain and ordinary meaning?
22 MR. STEIN: Objection. Form. Calls for
23 a legal conclusion.
24 THE WITNESS: I would like to leave it
25 with the comment of the objection of

1 Mr. Stein.
2 BY MR. SHAPIRO:
3 Q. Again, as we discussed earlier, when --
4 when your counsel objects, you're still obligated
5 to answer the question unless he instructs you not
6 to answer the question.
7 So I'm going to answer it -- I'm going to
8 ask the question again.
9 Dr. MacCarley, are you aware of any
10 circumstances in which courts depart from the
11 plain and ordinary meaning?
12 MR. STEIN: Same objection.
13 THE WITNESS: I believe a separate claim
14 construction hearing is either written or
15 sometimes argued in person -- is sometimes
16 used to further clarify some of the terms in
17 the document that may have been ambiguous or
18 not sufficiently clear to either of the
19 parties.
20 There is no such separate claim
21 construction document in this case.
22 BY MR. SHAPIRO:
23 Q. Are you aware of any other circumstances
24 in which courts may depart from the plain and
25 ordinary meaning?

Graphite Charging Company Exhibit 2013
IPR2024-00388

MR. STEIN: Same objections. Calls for a legal conclusion.
THE WITNESS: I -- I'm not prepared to answer that.
To your question, I will say I am not aware. I'm not saying they don't exist. I'm just saying I'm not aware, to answer your question.
BY MR. SHAPIRO:
Q. Dr. MacCarley, in preparing your declaration, did you consider whether it would be appropriate to apply a construction other than the plain and ordinary meaning?
MR. STEIN: Objection. Form.
THE WITNESS: Did I consider it, is your question? I'll say, yes.
BY MR. SHAPIRO:
Q. And what was the basis for your consideration of whether it would be appropriate to apply a claim construction other than plain and ordinary meaning?
A. I found a few cases in which terms were a bit ambiguous, not --
Q. Was --
A. Go ahead.

Q. Were there any other considerations?
A. Well, in their ambiguity, they could be read multiple ways. That doesn't strictly mean a complete redefinition. It simply means they -- sometimes in the context in which they were used, certain terms could have been interpreted multiple ways.
Q. Any considerations other than ambiguity?
MR. STEIN: Objection. Form.
THE WITNESS: Well, as I just said, the fact that they could interpret it in multiple ways -- I'm trying to make a distinction between that and the more general notion of ambiguity.
Certainly, if you point me to a specific term, I could explain in greater detail.
BY MR. SHAPIRO:
Q. In paragraph 34 of your declaration, you also state that, [as read]:
"For the purposes of this declaration, I do not believe that any express constructions are needed and have applied the plain and ordinary meaning of all terms to a person of ordinary skill in the art."
You see that; correct?

A. Yes.
Q. Can you explain to me what you mean by "express constructions"?
MR. STEIN: Objection. Form.
BY MR. SHAPIRO:
Q. Okay. Let me re-ask that.
Can you please explain to me what you mean by "express constructions"?
MR. STEIN: Same objection.
THE WITNESS: We're getting deep into semantics here.
What I said is, "I do not believe that any express instructions are needed." That is, there was no need in a -- for instance, a separate claim construction hearing -- exchange of information, whatever you refer to it as -- as something that formally has to be redefined.
Also, ambiguity allows that it's -- it's outside of, say, reconstruction of the term. It's -- because it allows that in the document itself, things could be used in ways that are inconsistent. I found some of that.
That's what I mean by "ambiguity."
///

BY MR. SHAPIRO:
Q. Dr. MacCarley, did you construe any terms in preparing your declaration?
MR. STEIN: Objection. Asked and answered.
THE WITNESS: Gosh, you mean in terms of the way I thought about it or I interpreted it, as opposed to, say, the way another expert might interpret it?
Could you clarify, please?
BY MR. SHAPIRO:
Q. My question is whether you construed any claim terms during preparation of your declaration.
MR. STEIN: Same objection. Asked and answered.
THE WITNESS: Well, as in the declaration, I say that "I do not believe any express constructions are needed and have applied the plain and ordinary meaning of all terms to a person of ordinary skill in the art."
So allowing for the ambiguity, either natural or artificial, that appears in the patent, I didn't feel to expressly apply my

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IPR2024-00388

1 own personal construction, if I understand
2 your question.
3 I did my very best to stay with what I
4 stated in paragraph 34.
5 BY MR. SHAPIRO:
6 Q. Dr. MacCarley, what is the plain and
7 ordinary of the term, "energy transaction
8 execution engine," that you applied for purposes
9 of your declaration?
10 MR. STEIN: Objection to form.
11 Foundation.
12 THE WITNESS: Well, that is a unique
13 phrase. First time I think I've seen it in a
14 printed document.
15 But it became immediately clear, both
16 from the claim terms and the context as it's
17 used in the text of the patent, that they are
18 referring to, basically, something that
19 controls the charging transfer of electric
20 current to the vehicle based upon decisions
21 that it is capable of making as a
22 computational device.
23 BY MR. SHAPIRO:
24 Q. Dr. MacCarley, what's the plain and
25 ordinary meaning of the term, "a set of operation

1 parameters of the charging operation," that you
2 applied for purposes of your declaration?
3 MR. STEIN: Objection. Foundation.
4 Form.
5 THE WITNESS: Again, what I heard you ask
6 about is "operational parameters." You
7 gave -- you offered -- you asked about two
8 different perspectives.
9 Perhaps you could repeat the second half
10 of your question.
11 BY MR. SHAPIRO:
12 Q. Well, as -- as we discussed before, in
13 paragraph 34 of your declaration, you stated that,
14 [as read]:
15 "For the purpose of this declaration, I
16 do not believe any express constructions are
17 needed and have applied the plain and
18 ordinary meaning of all terms to a person of
19 ordinary skill in the art,."
20 Is that correct?
21 A. That's correct.
22 Q. And so I'm asking, what is the plain and
23 ordinary meaning that you applied for purposes of
24 your declaration as stated in paragraph 34? Do
25 you understand?

1 A. And you're referring to "operational
2 parameters," that term?
3 Q. And the term I'm referring to in this
4 question is the plain and ordinary meaning of the
5 term, "a set of operation parameters of the
6 charging operation" -- I'm sorry -- "operational
7 parameters."
8 So what is the plain and ordinary meaning
9 of the term, "a set of operational parameters of
10 the charging operation"?
11 MR. STEIN: I'll just interject there
12 with the same objection, please. Form.
13 Foundation.
14 THE WITNESS: Well, these are stated in
15 the patent, both in the claims and the text.
16 And I stuck with what the patent said.
17 I could answer that question at a more
18 general level outside the context of the
19 patent.
20 But I'm going to presume that you want
21 the specifics as to this patent.
22 So I'm going to go to the claims,
23 which --
24 BY MR. SHAPIRO:
25 Q. Would it be helpful to you if we -- if we

1 brought up the claims?
2 A. I have a written copy in front of me. No
3 need.
4 MR. STEIN: If we can let the witness
5 finish his answer, I don't think he finished
6 it.
7 BY MR. SHAPIRO:
8 Q. Would you like to finish the answer, or
9 would you like to back up and do this in the
10 context of the claims?
11 A. Oh, well, I was about to do it in the
12 context of the claims. I --
13 Q. Okay.
14 A. I prefer I do it in -- I give you a more
15 general -- call it a more "academic" definition.
16 I can do that also.
17 Q. Okay. Hold on --
18 A. But --
19 Q. Give me a moment.
20 So nobody has Exhibit Share -- correct --
21 except for me at this point?
22 A. I have -- I am looking at your Veritext
23 Exhibit Share screen, but I do not see a document
24 open.
25 (Reporter clarifying.)

MR. SHAPIRO: I'm dragging exhibits into the marked exhibits folder.
And you should be able to see that.
(Reporter clarifying.)
(Exhibit 1001 was received and marked for identification on this date and is attached hereto.)
BY MR. SHAPIRO:
Q. Dr. MacCarley, can you refresh your Exhibit Share screen?
A. I have done so, and I now see exhibits 1001 and 1009.
Q. Okay. I've shared with you Exhibit 1001.
Can you confirm that this exhibit is U.S. Patent No. 8,103,391, Dr. MacCarley?
A. Yes. Well, I haven't opened the document, so I can't tell you what's inside.
But Exhibit 1001 is the '391 Ferro patent.
Q. Dr. MacCarley, can you open the document and confirm that it is U.S. Patent 8,103,391, please?
A. Opening it now. Still waiting -- it is now open.
I'm looking at the front page of it. And

comparing it with the written copy that I have, they appear to be identical. So I will say, yes, I do confirm.
Q. Thank you.
Can you turn to Claim 1 at the end of the '391 patent?
A. I'm there. I'm looking at my printed copy, which I simply find easier to navigate.
Q. And previously, I asked you for the plain and ordinary meaning of the term, an "energy transaction execution engine."
Do you remember that?
A. Yes.
Q. Do you see that term, an "energy transaction execution engine," in Claim 1 of the '391 patent?
MR. STEIN: Objection. Form. Foundation.
THE WITNESS: In the third limitation, it is mentioned for the first time.
Would you like me to repeat that -- quote that?
BY MR. SHAPIRO:
Q. Do you see in Claim 1 of the '391 patent, a limitation, "responsive to receiving, from an

energy transaction execution engine"?
A. What I see is "in response to the energy transaction execution engine to terminate the charging process," which is the very last line of the --
Q. Okay. Dr. MacCarley, can you go to the first limitation of Claim 1?
A. "Response to receiving" -- oh, I see what you're referring to now. "From" -- the difference only with that word. Yes.
Q. So does -- does Claim 1 recite "an energy transaction execution engine"?
A. Yes, it does.
Q. And, Dr. MacCarley, the plain and ordinary meaning that you provided for an "energy transaction execution engine" earlier in this deposition, was that for the term that appears in Claim 1 of the '391 patent?
MR. STEIN: Objection to form. Mischaracterizing.
THE WITNESS: I'm going to -- I'm going to start from the very beginning of the claim.
[As read], "A computer implemented method of managing a charging process of an electric

vehicle, the computer implemented method comprising: responsive to receiving, from an energy transaction execution engine, a request signaling a start of the charging process" -- and this is, I might point out, a potential area of syntactic ambiguity.
And then there's a comma, "monitoring a set of operational parameters of the charging process during the flow of electricity for one or more interruptions."
What he's saying is --
(Reporter clarifying.)
THE WITNESS: Oh, I'm so sorry.
Is there anything I can do at my end to increase the microphone sensitivity?
(Reporter clarifying.)
THE WITNESS: I got a little sidetracked there.
It is consistent with my answer to your previous question about my interpretation of what an energy transaction execution engine is.
BY MR. SHAPIRO:
Q. Thank you.
And in that same limitation in Claim 1 of

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IPR2024-00388

1 the '391 patent, do you see the term, "a set of
2 operational parameters of the charging process"?
3 A. I do.
4 Q. Can you tell me the plain and ordinary
5 meaning of the term, "a set of operational
6 parameters of the charging process"?
7 MR. STEIN: Objection to form and
8 foundation.
9 THE WITNESS: Okay. Yeah. This was your
10 prior question before we got sidetracked.
11 There are -- in various claims
12 distributed as well as in the texts, there
13 are specific operational parameters that it
14 is considering when it is -- when the energy
15 transaction execution engine is terminating
16 the charging process.
17 And the monitoring of those parameters is
18 in the hands of the -- the interrupt monitor
19 has other words associated with it, but
20 that's the core of it.
21 And I -- I will go through here and
22 enumerate every one of the operational
23 parameters they are specifically referring to
24 if -- if that would be the succinct answer to
25 your question.

1 BY MR. SHAPIRO:
2 Q. You can continue.
3 A. Okay. Let's see. The operational
4 parameters are -- I'm going to speak generically
5 and then drop into specific quotes.
6 The operational parameters are things
7 that are being monitored by the -- well, they
8 refer to it as the "interrupt monitor."
9 But they are the things that are
10 responsible for causing or requesting that the
11 energy transaction execution engine terminate
12 charging.
13 And among these are -- there is -- moving
14 to Claim 2, there is a manual override
15 interruption, that the state of the manual
16 override switch would be considered an operational
17 parameter.
18 There is a device capabilities
19 interruption, which means that if something
20 internal in one of the presumed electronic or even
21 mechanical devices had failed, that that would be
22 an operational parameter that is being monitored.
23 There is a data services interruption,
24 which would be monitoring the operational
25 parameter -- the operational state of data

1 communication either between the two units, the
2 execution engine and the interrupt monitor, or
3 external infrastructure events. They allow in the
4 text.
5 There is -- refer to a "device
6 capabilities interruption." So in this case, the
7 operational parameter would be some capability of
8 a device that may be in a fault state.
9 There is a preference interruption, which
10 is somewhat broadly defined as an externally
11 settable parameter either by the user or by some
12 external parameter setting input that has been
13 violated or is altered or for whatever other
14 reason needs to be monitored and could potentially
15 indicate that termination of charging is
16 appropriate.
17 There is -- I've already mentioned the
18 data services interruption.
19 There is override -- I think that covers
20 the items that you specifically mention in the
21 claims.
22 But to more completely answer your
23 question, I mean, operational parameters that
24 could actually fall within -- theoretically, any
25 fault state could potentially be considered an

1 "operational parameter." I do talk about that in
2 a lot of different places in the declaration.
3 And as when you're -- when you later
4 asked more specific questions about it, I make
5 sure that I identify something that -- within the
6 scope of the "operational parameter" definition.
7 Q. Thank you, Dr. MacCarley.
8 And in that same limitation and that same
9 term, what does the term, "a set" -- I'm sorry.
10 Let me re-ask that question.
11 In the same limitation of Claim 1 of the
12 '391 patent, what does the term -- what is the
13 plain and ordinary meaning of the term, "a set"?
14 MR. STEIN: Objection. Form.
15 Foundation.
16 THE WITNESS: It would be the group, a
17 designated group, something that in the
18 context surrounding that statement would make
19 the significance of clear.
20 BY MR. SHAPIRO:
21 Q. Dr. MacCarley, what is -- well --
22 Dr. MacCarley, in the second limitation in Claim 1
23 of the '391 patent, do you see the term, "the set
24 of operational parameters which conform to a set
25 of predefined interrupt conditions"?

A. Yes.
Q. Can you tell me the plain and ordinary meaning of the term, "the set of operational parameters which conform to a set of predefined interrupt conditions," that you applied in your declaration?
MR. STEIN: Objection. Form.
THE WITNESS: I applied the definition exactly as stated in that limitation, which -- "the set of operational parameters which conform to a set of predefined interrupt conditions," which I'll take and say what they mean here is that should cause what they define elsewhere as an interruption in a charge applied to the battery.
And then they list the three that I mention after comprehensively going through all the claims, which is one of -- at least one of a device capabilities interruption, a preference interruption, and a data services interruption.
BY MR. SHAPIRO:
Q. And what's the plain and ordinary meaning of "which conform to a set of predefined interrupt conditions"?

MR. STEIN: Objection. Asked and answered.
THE WITNESS: The plain and ordinary meaning would be comparing a value measured from the environment, one of the operational parameters, that would either exceed a threshold or logically trigger a binary type of event.
Like, a failure of data communication would -- that's not a threshold type of thing. It just simply disappeared; therefore, that would be a condition that should lead to the interruption of charging of the battery.
Now, I hope I've understood your question correctly.
BY MR. SHAPIRO:
Q. Okay. And, Dr. MacCarley, do you see in the second limitation of Claim 1 of the '391 patent the term "device capabilities interruption"?
A. Yes.
Q. What is the plain and ordinary meaning of "device capabilities interruption"?
MR. STEIN: Objection. Form.

THE WITNESS: The plain and ordinary meaning of "the device capabilities interruption," which is consistent with its use, both the claims and the text of the patent -- I'm going to answer out of context first because you phrased the question, "plain and ordinary meaning" -- means that if a certain device capability is compromised in some way, disrupted, out of calibration, or in some other way detected as being in a failed state, that would -- that would be a very good example of -- those would be very good examples of device capability interruption.
A device is no longer capable of doing something that it should, if I had to put it in the plainest language I could.
BY MR. SHAPIRO:
Q. Is that the plain and ordinary meaning of the term, "device capabilities," that you applied in your declaration?
MR. STEIN: Objection to form.
THE WITNESS: I'm hesitating only because -- I will say, yes.
But I have to allow that in a 131-page

declaration and in talking about plain and ordinary meaning, there could be variations of that.
But, yes, that is how I interpreted it.
BY MR. SHAPIRO:
Q. And in the second limitation of Claim 1 of the '391 patent, do you see the term, "a preference interruption"?
MR. STEIN: Objection. Form. Foundation.
THE WITNESS: I do.
BY MR. SHAPIRO:
Q. What is the plain and ordinary meaning of the term, "a preference interruption," that you applied in your declaration?
MR. STEIN: Objection. Form.
THE WITNESS: Again, allowing for the possibility of slight variations -- to answer your question, preference interruption would be a violation of either some threshold or some state, both of those being compared with an operational parameter input that, if that difference occurs -- if, say, a threshold is exceeded or a state is violated, put into something other than what was preferred when

the preference was set up, that would constitute an event worthy of generating an interruption of charging.

BY MR. SHAPIRO:

Q. Dr. MacCarley, in the second limitation of Claim 1 of the '391 patent, do you see the term, "a data services interruption"?

A. Yes.

Q. What is the plain and ordinary meaning of "a data services interruption," that you applied in your declaration?

MR. STEIN: Objection. Form.

THE WITNESS: This does come up in my declaration.

But the way you've asked the question, what is the plain and ordinary meaning that I have chosen to apply, I would say it's certainly consistent with however I stated it in the declaration in places.

And I'll step back then and more directly answer your question by saying, the plain and ordinary interpretation of that would be some disruption of normal data communication from one entity to another or to multiple other targets.

That would be of concern and, therefore, would justify the interruption of electric power being provided to charge the battery.

MR. SHAPIRO: Okay. We've been going almost an hour.

Should we take a five-minute break before we resume?

Is that okay, Counsel?

MR. STEIN: Yeah. It's up to what you and the witness would like to do.

THE WITNESS: It's fine with me.

MR. SHAPIRO: Okay. Let's do that.

Thank you.

THE WITNESS: Thank you.

(Short break taken.)

BY MR. SHAPIRO:

Q. Okay. Dr. MacCarley, do you see in the first limitation of Claim 1 of the '391 patent the term, "during the flow of electricity"?

MR. STEIN: Objection. Form.

THE WITNESS: Yes.

BY MR. SHAPIRO:

Q. What is the plain and ordinary meaning of the term, "during the flow of electricity," that you applied in your declaration?

MR. STEIN: Objection. Form.

THE WITNESS: Indicates that electric power was flowing into the battery. In other words, in a -- in a narrower definition of the word "charging" than I think it's being used in this patent. The battery is being charged.

BY MR. SHAPIRO:

Q. Okay. Thank you.

Dr. MacCarley, in your opinion, does the term, "energy transaction execution engine," have the same meaning in Claims 1, 8, 15, and 20 of the '391 patent?

MR. STEIN: Object to form.

THE WITNESS: You said 1, 8, 15, 19, and 20?

BY MR. SHAPIRO:

Q. 1, 8, 15, and 20.

A. 20. That's a comprehensive type of question. I would like --

Q. Let me make it easier. Let me make it easier for you.

Dr. MacCarley, do you understand that the '391 patent has four independent claims: 1, 8, 15, and 20?

A. As you've just pointed it to my attention, yes, those appear to be the independent claims.

Q. And is it your opinion, Dr. MacCarley, that the term, "energy transaction execution engine," has the same meaning in all of the independent claims of the '391 patent?

MR. STEIN: Objection. Form.

THE WITNESS: Again, I'm going to read these to make absolutely sure I have accurately and comprehensively answered your question.

As referred to in the third limitation of Claim 1, "to terminate the charging process" -- (sotto voce).

They appear to be consistent.

BY MR. SHAPIRO:

Q. In your opinion, Dr. MacCarley, is the plain and ordinary meaning of the term, "a set of operational parameters of the charging operation," the same in all of the independent claims of the '391 patent?

MR. STEIN: Objection. Form.

THE WITNESS: To answer that question, I'm going to have to review all of the

1 claims, since I sense that you're looking for
2 subtle differences.
3 Please give me a moment.
4 BY MR. SHAPIRO:
5 Q. Take your time.
6 A. I want to listen to your question a bit
7 more carefully.
8 Could you please repeat it?
9 MR. SHAPIRO: Ms. Harris, could you read
10 my question back to the witness?
11 (Reporter clarifying.)
12 (Record read.)
13 BY MR. SHAPIRO:
14 Q. Dr. MacCarley, is the meaning of the
15 term, "a set of operational parameters of the
16 charging operation," the same in all the
17 independent claims of the '391 patent?
18 MR. STEIN: Objection. Form.
19 THE WITNESS: I'm reading through them
20 now, as to explain the delay.
21 Okay. I put these on only because it's
22 kind of noisy in here.
23 The term, "set of operational
24 parameters," is used quite broadly, and it is
25 not mentioned in all of the claims.

1 But in those in which it is mentioned, it
2 is -- I think they are all encapsulated
3 within the -- their interpretation, their
4 definition of "a set of operational
5 parameters," clarifying those things that are
6 monitored from the external environment.
7 BY MR. SHAPIRO:
8 Q. Okay. Thank you.
9 And, Dr. MacCarley, in your opinion, is
10 the meaning of the term, "the set of operational
11 parameters, which conform to a set of predefined
12 interrupt conditions," the same in all the
13 independent claims of the '391 patent?
14 MR. STEIN: Objection.
15 THE WITNESS: I pause because you're
16 citing a particular interpretation that they
17 used and then asking whether it is consistent
18 across all of the claims.
19 They -- there are a range of operational
20 parameters mentioned. The term is used very
21 broadly.
22 So I guess the succinct answer to the
23 question you asked is, no, there are -- there
24 is a wide range of things that could be
25 considered as "operational parameters."

1 And when they are addressed in Claim 1
2 and elsewhere, they are basically put into
3 three fairly wide categories.
4 You asked about the one associated with
5 exceeding the threshold. There are other
6 operational parameters that do not involve
7 exceeding a threshold.
8 I'll --
9 BY MR. SHAPIRO:
10 Q. Dr. MacCarley -- go ahead. Sorry.
11 Complete your answer.
12 A. I hope that has -- perhaps it's more
13 detail than you needed, but I'm trying to be very
14 specific.
15 Q. Do you agree, Dr. MacCarley, that certain
16 terms appear in all of the independent claims of
17 the '391 patent?
18 MR. STEIN: Objection. Form.
19 THE WITNESS: Am I aware that certain
20 terms appear in all of the independent
21 claims? Gosh, I suppose so. Looking at
22 them -- scanning them now, there are
23 certainly a lot of words that are common to
24 them.
25 I -- maybe you could be just a bit more

1 specific as to what you're trying to identify
2 or -- yes, there are -- there are common
3 terms.
4 As a comprehensive type of question for
5 me to enumerate a list, if that's what you
6 were hoping for, that's going to take some
7 time.
8 BY MR. SHAPIRO:
9 Q. Dr. MacCarley, for terms that are common
10 to all of the independent claims of the '391
11 patent, did you give those terms the same
12 construction in each of the dependent --
13 independent claims?
14 MR. STEIN: Objection. Form.
15 THE WITNESS: Well, since I just made
16 clear that I -- I'm not prepared to fully
17 identify everything that is common between
18 them -- but my overview opinion of the claims
19 is they've been -- they've been reasonably
20 consistent.
21 Again -- I'm sorry. That's a -- that's
22 not really a technical question.
23 I believe that those terms, not it --
24 completely identified that are shared between
25 the two have -- based on a cursory glance at

this, they appear to be used consistently.
But I am aware of cases where, in context, they could be read, maybe, slightly differently.
That's the best answer I could give you.
BY MR. SHAPIRO:
Q. Dr. MacCarley, did you apply a different plain and ordinary meaning for any of the terms that we discussed earlier in your deposition in Independent Claims 8, 15, and 20?
A. Well, any other claims discussed, did I apply a different interpretation?
I'm going to have to ask -- answer that question generically.
I have strived to be consistent in my interpretations. I have -- am willing to follow the interpretations, the meanings, as used in Ferro.
I have not applied any license beyond that to interpret something that would be inconsistent with what I believe a POSA would read in the patent claims.
Q. Dr. MacCarley, in Claim 2 of the '391 patent, do you see the term, "manual override interruption"?

A. I do.
Q. What is the plain and ordinary meaning of the term, "manual override interrupt," that you apply in your declaration?
MR. STEIN: Objection. Asked and answered.
THE WITNESS: You phrased the question, "What is the plain and ordinary meaning"?
Allowing for the possibility that there are subtleties, especially in the text of the patent, the plain and ordinary meaning of a "manual interrupt" would be -- usually be a human being or some external, decision-making entity providing an input to the system that would lead to the interruption, the termination, of the charging process.
BY MR. SHAPIRO:
Q. And does the term, "manual override interruption," have the same meaning in Claims 9 and 16 of the '391 patent?
MR. STEIN: Objection. Form.
THE WITNESS: I'm reading those now.
(Sotto voce).
They appear to be consistent. They -- they speak to different aspects of it, but I

don't see any distinction in Ferro's interpretation.
BY MR. SHAPIRO:
Q. In Claim 4 of the '391 patent, do you see the term, "electric vehicle transaction infrastructure"?
A. I do, the last words of it.
Q. Do you see the same term, "electric vehicle transaction infrastructure," in Claim 11 of the '391 patent?
A. I do.
Q. I'm sorry, Dr. MacCarley.
Did you answer the question?
A. Yes. I said, I do see it.
Q. Okay.
A. Was there a -- did I miss a question?
Q. No. I didn't hear you. Thank you.
And do you see the term, "electric vehicle transaction infrastructure," in Claim 18 of the '391 patent?
A. I do. Again, last words.
Q. What is the plain and ordinary meaning of the term, "electric vehicle transaction infrastructure," that you applied in your declaration?

MR. STEIN: Objection. Form.
THE WITNESS: This is discussed in the declaration. It may take me a while to find it.
May I request of you -- we could save time if you -- you have word search capability in front of you. I do not. I have my eye scan availability only.
If you could identify areas in my declaration where "infrastructure" is mentioned, I could -- I could address each one in a series.
BY MR. SHAPIRO:
Q. I'm not asking about a specific use of the term in your declaration.
I'm just asking for the plain and ordinary meaning of the term that you applied.
A. Well, that is what is stated in the declaration, and I refer that -- and I first refer you to what I already said and then elaborate as necessary.
Q. Well, take your time.
Find -- find where you addressed it, and then answer my question.
A. Sure.

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IPR2024-00388

1 (Sotto voce).
2 Just because it's noisy in here.
3 I'm not making an exceedingly fast word
4 search progress through my own declaration.
5 But I think a bit -- I think I have a
6 better way to answer your question, since it's a
7 comprehensive one.
8 In the Ferro patent, Figure 3, is a black
9 diagram of an energy transaction infrastructure in
10 accordance with an illustrative embodiment.
11 And it says, "Electric vehicle energy
12 transaction infrastructure is a charging
13 infrastructure for managing all phases of an
14 electric vehicle charging transaction" -- by the
15 way, I'm in Column 7, starting at line 30 of the
16 Ferro patent -- "managing all phases of an
17 electric vehicle charging transaction."
18 The components elaborate as to what's in
19 the infrastructure. So interpreting what they say
20 here, first of all, I want to assure you, aware of
21 this, I was faithful to their definition of an
22 "infrastructure," which, within the plain and
23 ordinary meaning, could mean a lot of different
24 things.
25 But summarizing their interpretation, it

1 is "all phases of an electric vehicle charging" --
2 for managing -- it's for "managing all phases of
3 an electric vehicle charging transaction." And
4 that would admit both components and functions
5 within their charging system as well as external
6 inputs that meet the definition of "managing all
7 phases of an electric vehicle charging
8 transaction."
9 I'll -- I'm confident that I was
10 consistent with that interpretation throughout
11 this document. That being said, without
12 comprehensively looking for every possible mention
13 of the word "infrastructure."
14 That's my answer.
15 Q. Is the meaning of the term, "electric
16 vehicle transaction infrastructure," that you just
17 gave me the plain and ordinary meaning of the
18 term?
19 MR. STEIN: Objection. Form.
20 THE WITNESS: Oh, boy. That is a pretty
21 rare assemblage of words. So when you ask,
22 "the plain and ordinary meaning," it's --
23 it's going to be context dependent.
24 I could -- I could say with confidence
25 that, in this context, there's nothing --

1 nothing that would put it outside the realm
2 of possible plain and ordinary
3 interpretations.
4 Again, in context, it could be
5 interpreted a lot of different ways.
6 BY MR. SHAPIRO:
7 Q. So the term, "electric vehicle
8 transaction infrastructure," could have a
9 different meaning in the context of the '391
10 patent?
11 MR. STEIN: Objection.
12 Mischaracterizing.
13 THE WITNESS: Yeah. I -- yeah. I
14 don't -- that's -- that's inconsistent with
15 what I said.
16 I'm repeating Ferro's definition: the
17 "charging infrastructure for managing all
18 phases of an electric vehicle charging
19 transaction."
20 And I will opine further that, generally,
21 wording like that is allowing a lot of leeway
22 in the -- in the possible interpretation for
23 intellectual property purposes.
24 But -- and that's -- that contention is
25 further supported by the fact that I -- going

1 through the claims again -- give me -- can
2 you direct me to any mention in the claims of
3 "infrastructure"? Is it --
4 BY MR. SHAPIRO:
5 Q. Well, does the term, "electric vehicle
6 transaction infrastructure" have the same meaning
7 in Claims 4, 11, and 18?
8 A. Okay. There it is, 4.
9 (Sotto voce).
10 They are consistent in that, again, they
11 are defining it pretty broadly. 4 speaks --
12 refers to a "component of an electric vehicle
13 transaction infrastructure." So does 11 -- has
14 "device capabilities."
15 It does appear to be consistent. Their
16 use of that term in the claims, the three claims
17 that you mentioned.
18 Q. Okay. Thank you.
19 Dr. MacCarley, do you see the term, "a
20 participant to the charging process," in Claims 5
21 and 12 of the '391 patent?
22 A. 5 and 12, I do see both of those.
23 Q. What is the plain and ordinary meaning of
24 the term, "a participant to the charging process,"
25 that you applied for your declaration?

1 MR. STEIN: Objection. Form.
2 THE WITNESS: The way I stated it in the
3 previous answers to your question is it could
4 be, say, a human being that is activating a
5 manual override.
6 It could be, not just activating it, but
7 also setting those preferences, possibly,
8 say, thresholds, that are tested to see if
9 they are exceeded.
10 Or it could be an external,
11 decision-making entity that has set those
12 parameters, based upon whatever, a change
13 event, that's brought us electric rates or
14 something from the environment.
15 So "participant" means -- succinctly
16 stated, it's the thing that selects the
17 preference, at the risk of repeating the
18 question back to you.
19 BY MR. SHAPIRO:
20 Q. Dr. MacCarley, in the term, "manual
21 override interruption," in Claims 2, 9, and 16,
22 how did you construe the term, "manual"?
23 MR. STEIN: Objection. Form.
24 THE WITNESS: Well, I was visualizing
25 this in the declaration.

1 I don't recall feeling compelled to add
2 any further detail to a term as plain as
3 "manual."
4 Again, it's the action of that
5 participant that -- it's one of the actions
6 of the participant that -- other than, say,
7 setting parameters, it's a human being or
8 some external decision-making entity that
9 would activate a -- in this case, "manual" is
10 used almost exclusively in the context of a
11 manual shut off-switch, which is usually used
12 in the event of either the desire to
13 terminate the charging process early for an
14 emergency, say, for instance, the owner of a
15 vehicle could see something going wrong with
16 the charging process.
17 MR. STEIN: Do you have any question,
18 Jason, or are we just waiting for the next
19 one?
20 MR. SHAPIRO: We're waiting for the next
21 question.
22 BY MR. SHAPIRO:
23 Q. Dr. MacCarley, let's go back to your
24 declaration, Exhibit 1009. And if you could turn
25 to paragraph 42 of your declaration, and then I'll

1 ask the question.
2 A. Okay.
3 Q. So in paragraph 42 of your declaration,
4 you opined that Kimura alone renders obvious
5 Claims 1, 4 through 8, 11 through 15, and 18
6 through 20 of the '391 patent.
7 Do you see that?
8 A. Yes.
9 Q. Can you please identify for me the
10 elements of independent Claims 1, 8, 15, and 20
11 that are not disclosed in Kimura but would have
12 been obvious, in your opinion?
13 MR. STEIN: Objection. Form.
14 Foundation.
15 THE WITNESS: They do not specifically
16 disclose -- disclose in Kimura what would
17 have been obvious to a POSA.
18 Do I understand your question correctly?
19 BY MR. SHAPIRO:
20 Q. Yes.
21 A. Well, this -- this -- the answer to that
22 type of question is -- I mean, the very thing that
23 rather extensive text is devoted to in the
24 declaration. In section -- Section 11a, you asked
25 about -- I'll start with 4. Excuse me.

1 You didn't -- you started with 1; is that
2 correct? You said -- 1, 8, 15, and 20 is my
3 recollection --
4 Q. Correct. Correct.
5 A. So let me go to --
6 Q. Well, let's make it simpler. Let's do
7 Claim 1 first.
8 Can you identify --
9 A. I think --
10 Q. Can you identify for me the elements of
11 Independent Claim 1 that are not disclosed in
12 Kimura but would have been obvious in your
13 opinion?
14 MR. STEIN: I think he shouldn't be
15 interrupted. I believe he was answering your
16 question. So he should be allowed to finish
17 before you ask him the question.
18 THE WITNESS: I appreciate that. That's
19 a helpful suggestion.
20 And I'm looking at that right now. I was
21 trying to form an answer.
22 And Claim 1 is rendered through -- (sotto
23 voce).
24 Subject to the POSA's interpretation as
25 mentioned in paragraph 49, at first glance, a

1 reading of the patent would -- would -- a
2 "charging process" is referred to, might
3 require the clarity added by the intelligence
4 of a POSA to realize in context that the
5 process is more than just the transfer of
6 electricity.
7 I believe I'm answering the intent of
8 your question here.
9 What was not so specifically mentioned in
10 Kimura but relied on with the interpretation
11 of a POSA; is that correct? That's --
12 BY MR. SHAPIRO:
13 Q. Right.
14 The question -- the question is, could
15 you please identify for me the elements of
16 Independent Claim 1 that are not disclosed in
17 Kimura but would have been obvious in your
18 opinion?
19 A. Yes. Well, being that I'm -- in context,
20 "charging process," what -- what they meant by it
21 would have been obvious, as I describe in
22 paragraph 49, that it's more than just the
23 transfer of electricity. That's one element,
24 exchange of information.
25 Kimura uses the word "microcomputer of

1 the charge controller." I don't believe that is
2 mentioned in '391. But in context, it's clear
3 that that's what was intended, '391 -- in Claim 1
4 of '391.
5 We talk about a computer implemented
6 method of managing a charging process in an
7 electric vehicle, "the computer implemented method
8 compromising."
9 So I would have interpreted that as
10 obvious. I'm sure any POSA would also. And I
11 make that clear in paragraph 53 of the
12 declaration.
13 Let's see. Charge controllers --
14 transmits -- Kimura uses the term, for the medium
15 by which the -- the initiation of charging, that
16 is -- mentions transmitting of charge start signal
17 via the control line. I believe the wording was
18 slightly different in '391.
19 But, again, that's on obvious thing. A
20 control line can -- to someone with any knowledge
21 in the field, they would -- they would know -- it
22 would be obvious what they are talking about:
23 Some electronic or similar path by which the data
24 can be communicated, the signal can be
25 communicated, the request to start could be

1 communicated in this specific case.
2 As I mention in 56, I'm confirming my
3 opinion that the presence of a request signal --
4 signaling the start of the charging process in
5 Kimura would be considered obvious, an obvious
6 element for, among other reasons, the fact that it
7 had been mentioned 14 years prior in a standard
8 for conductive charging that anyone working in the
9 field, I believe, would be at least aware of.
10 That's J1772.
11 Continuing -- aware this is somewhat
12 redundant. Kimura refers to their equivalent of
13 an energy transaction execution engine as the
14 "controller." And again, that connection in
15 context would be obvious -- obvious to me, and I
16 believe obvious to a POSA.
17 And I -- I mention that specifically in
18 the latter part of paragraph 57. And I say,
19 "Embodiments of the energy transaction execution
20 engine in the '391 patent are likewise broad." So
21 it certainly admits that interpretation. This
22 is -- this would be obvious.
23 That's further amplified in my paragraph
24 58, where I say that, "the charge controller 24 of
25 the energy transaction execution engine from the

1 '391 patent perform similar functions, including,"
2 and I go through all the things that it does,
3 which are the same.
4 I connect the dots as obvious Kimura's
5 use of the word "battery controller" and its
6 function that is, if not the same or shared with
7 that of the interrupt monitor of '391 -- when I
8 say that -- my understanding of Kimura, the
9 battery controller 14 then monitors operational
10 parameters responsive to receiving the signal.
11 This is after it has been told to start
12 via the charge start signal that originated from
13 the execution engine.
14 That's obvious to me; I believe would be
15 obvious to a POSA.
16 Looking further at the mention of
17 "operational parameters" -- let me read -- you
18 asked repeatedly about -- in Limitation 2 of it.
19 Kimura provides a more detailed, more
20 extensive set of operational parameters that
21 should be monitored. And I believe that they were
22 allowed within the three categories stated in the
23 '391 patent of interruptions, including power
24 leakage, battery charging losses, state of charge
25 of the battery, voltage of the battery, quantity

1 of the battery, stored energy in the battery, and
2 communication time delay, etc.
3 So to someone working in the field,
4 including myself, that would be a point that I
5 found obvious that would not be stated in exactly
6 the same words in Kimura that they are stated in
7 '391 in. Monitoring voltage, for instance,
8 provide more detail about that in 6 -- Part 61,
9 62.
10 Kimura provides -- Kimura, which is
11 Exhibit 1002, it's Figure 6 that I duplicate on
12 page 30 of the declaration. It's sort of a
13 high-level block diagram illustrating the very
14 function that is discussed in the data
15 communication between the energy execution engine,
16 which would map to Item 24, the charge -- the
17 charger controller and on the right, Element 14 of
18 Kimura, battery controller.
19 In this context for this function, it's
20 doing the same thing as the interrupt monitor --
21 excuse me -- interruption monitor of '391. It's
22 talking specifically in this case about two of the
23 possible things that it might want to communicate.
24 Again, in this case, Kimura is more
25 specific than the Ferro patent. In my mind, it

1 can't be held against it for expressing greater
2 detail and knowledge and context.
3 In paragraph 63, I map Kimura's statement
4 that the, [as read]: "controller 14 determines
5 whether the charge operation is ended on the basis
6 of the voltage and remaining quantity of the
7 current."
8 It's, again, referring to the figure, I
9 believe, that I just mentioned. And it's, again,
10 just more specific than the way it is stated in
11 '391.
12 So I considered it an obvious
13 interpretation. And Kimura indicates that
14 electricity is flowing, in paragraph 64, as early
15 as the first monitoring step.
16 And then essentially charging is mon- --
17 all of the parameters are being monitored while
18 the vehicle is receiving current, more
19 generically, being charged.
20 And their wording would be different than
21 it is stated in multiple places in Ferro, but it
22 is obvious they are -- when they talk about
23 turning off the current for certain parameters --
24 in this case, battery current or stated charge
25 would initiate that -- would be interpreted as

1 what Ferro refers to as "interruptions."
2 I'm connecting the dots there. I find
3 those to be obvious interpretations.
4 The same, jumping down to paragraph 66,
5 can be said for vehicle side interruptions caused
6 by power leakage in the electric vehicle, failure
7 of battery, break in the charge circuit,
8 communication failure. All of those are as much
9 and more as stated specifically in Ferro. And
10 therefore, the connection between the two would be
11 obvious, in my opinion.
12 See the energy transaction request -- in
13 67 I talk about -- I allow that some -- some
14 obviousness connection is necessary when you're
15 interpreting what Kimura states as "responsive to
16 receiving, from an energy transaction execution
17 engine" -- duh, duh, duh -- a request signal.
18 Now I'm quoting from Kimura. That maps
19 to the initiation signal first sent by the energy
20 transaction execution engine in Ferro to the
21 interrupt monitor, telling it, time to start
22 watching for interrupt conditions. That is
23 conditions that should be detected as the reason
24 that an interruption of power should occur.
25 There's multiple ones stated there. I'll

1 spare the -- there I'm referring to paragraph 67
2 of my declaration.
3 In 68, I appeal, again, to the SAE
4 standard, which I believe is fairly common
5 knowledge of someone working in the field. It
6 would actually be required -- required knowledge
7 of anybody working in the field, since anything
8 they produce has to be standard compliant. Would
9 have been necessary in the design of the charging
10 system.
11 "Condition shall be monitored" -- to be
12 more specific, again, about an area that required
13 my obviousness interpretation, I am saying that a
14 POSA with knowledge of this and other SA IEEE, NEA
15 standards -- excuse me -- NEC, which are electric
16 code standards, would be aware that when the
17 standard states, "Conditions shall be monitored
18 continuously during the charge process" -- this is
19 a quote from the standard.
20 But it's obvious they are talking about
21 the same thing that's going on in '391.
22 So what I'm saying is that a POSA aware
23 of this would know that the obvious -- that they
24 could interpret -- I could interpret what is going
25 on in '391 as being virtually the same as what I

1 stated above, read specifically quoted the from
2 Kimura, all of the monitoring functions.
3 Continuing -- I'm still on claim one,
4 still on Limitation 1 of Claim 1, to be specific.
5 70, I make it clear that it's obvious
6 when you talk about, say, additional
7 abnormalities, which were clearly intended within
8 the realm of, say, a capabilities interruption, as
9 stated in '391, that -- including overheat or a
10 power failure or a component -- say, a power
11 supply failure in the high voltage power supply,
12 that those are obviously what is being referred to
13 in Claim 1 of -- and elsewhere in the '391 patent.
14 71, I made clear these are detection of
15 charger-side abnormalities. And it's obvious --
16 Kimura says that those will lead to a charging
17 process termination that is -- what is referred to
18 in '391 as an interruption due to some sort of
19 disruption or, in Kimura's words, "abnormality."
20 Kimura goes on through the end of 74,
21 talking in more specific terms about all those
22 things that would constitute capabilities,
23 interruptions, or arguably preference
24 interruptions or data communication interruptions.
25 72 is -- specifically does talk about a

1 component -- component failures in, say, for
2 instance, high-voltage power supply.
3 These are all just more detailed
4 descriptions of the rather generic mentions of
5 these type of external events in '391.
6 And finally in 74 -- I'll just read it:
7 "As noted above with respect to the vehicle-side
8 monitoring, published standards that pre-date
9 '391."
10 I'm actually -- in the interest of
11 obviousness -- yes, obviously I'm referring to the
12 cited standard.
13 There are many -- there's at least six,
14 seven other SAE standards alone that speak to
15 monitoring and data communication as required in
16 any DC charging, which high-voltage supply is
17 apart from the vehicle, which is in -- the entire
18 context of the '391 patent, by the way, is equally
19 true for charger-side monitoring.
20 Moving to Limitation b of 1, if you'd
21 like me to continue. Please advise.
22 That was a question for you.
23 Q. Are there other limitations in Claim 1 of
24 the '391 patent that are not shown in Kimura that
25 are obvious?

1 MR. STEIN: Objection. Asked and
2 answered.
3 He's in the middle of answering that
4 question.
5 THE WITNESS: Well, yes, when I said, Do
6 you want me to continue and keep going
7 through every one that I can think of or can
8 find in my declaration, I can keep doing
9 that. So --
10 BY MR. SHAPIRO:
11 Q. Can -- is it possible to just give me a
12 list without explaining why?
13 MR. STEIN: Objection. Form.
14 THE WITNESS: I'm not prepared to
15 consolidate many, many pages of my
16 declaration into a list form.
17 But I think that the key ones I already
18 have enumerated. For instance, the much
19 greater detail that Kimura devoted to
20 describing interruption conditions, how it's
21 obvious they are talking about the three
22 interruption categories specifically
23 mentioned the '391 patent.
24 I will continue, though, unless you tell
25 me otherwise.

1 I state an opinion in 75, Kimura explains
2 that, [as read]: "interruption detection
3 involves determining whether the monitored
4 operational parameter" -- duh, duh, duh --
5 "conforms to predefined interrupt
6 conditions."
7 Now, those -- in fact, almost the same
8 words that appear in '391. I'm not sure how
9 much obviousness interpretation that
10 requires.
11 But consider it my opinion that that's an
12 obvious connection.
13 How a controller detects communication
14 abnormalities -- this -- just to make clear,
15 it is obvious that the "communication
16 abnormalities" referred to here would be --
17 fall within the category of '391's data --
18 they don't use the word "communication" --
19 data -- their data interruptions. Have to
20 find the specific word.
21 Define interrupt conditions -- (sotto
22 voce) -- data services interruptions.
23 Continuing, Kimura goes so far as to cite
24 something that actually required great
25 insight that was missed, I believe, in '391

1 but was within their general interpretation
2 when they talk about device capabilities or,
3 arguably, device preferences.
4 They cite the detection of leakage power
5 in the electric vehicle or battery failure
6 for a charge circuit breakage. That would
7 be -- the latter would be pretty clear, a
8 device capabilities interruption type of
9 event.
10 What I was more impressed with, as I
11 mentioned before, was that they were aware of
12 the need to detect leakage power, which would
13 suggest that there is either a short circuit
14 somewhere in the wiring of the vehicle or the
15 charger leading up to it.
16 But that -- pushing current into it, in
17 which all of the current could not be
18 accounted for as it enters the battery
19 compared to when it originates from the
20 high-voltage power supply. That's generally
21 how that's detected. That's a safety
22 condition, and it's an important one.
23 Then "detect these abnormalities," we
24 understand Kimura -- again, Kimura says it as
25 "exchange between the battery controller and

1 the charger controller." Mapping that back
2 to '391, that's the interrupt monitor and the
3 energy transaction engine.
4 I -- in this section in which you can --
5 you can clearly see I devoted a lot of
6 attention. I want to clarify, some of these
7 things are, let's just say, so obvious they
8 didn't need to be mentioned as points of
9 obviousness.
10 And I'm -- so understand that when I go
11 through all of this, we're talking about
12 various degrees of obviousness. It doesn't
13 necessarily -- in other words, I'm not saying
14 they are missing from Kimura.
15 I'm saying they could be interpreted as
16 missing in the most critical analysis. So
17 I'm making sure that they are covered, just
18 trying could be comprehensive.
19 Detecting more about abnormalities in the
20 apparatus, the equipment. For "detecting the
21 one or more interruptions" -- it's wording
22 from '391. I'm now in paragraph 82. And I
23 contend that it is obvious that Kimura
24 teaches this.
25 Basically, that's what '391 is all about.

1 It's detecting conditions that would -- for
2 whatever reason, they are automatically or
3 manually shut off from the passage of current
4 to the battery from the charger.
5 So again, they are referring to these
6 events as "interruptions." I'm being a bit
7 more careful to refer to them as "events"
8 that would lead to an interruption in the
9 charging of the battery.
10 "Vehicle abnormalities" -- just a
11 statement of what Kimura actually says. It's
12 an exact map.
13 Kimura, again, adds greater detail by
14 pointing out with respect to a threshold
15 that, according to how it is set, is a
16 preference. It could be exceeded or dropped
17 below. That is set according to the type of
18 battery.
19 I'm simply saying that would be obvious
20 and a more general statement of the same
21 thing going on in '391.
22 2, which says, "a preference
23 interruption." That is a more specific
24 example of a preference in this case. Kimura
25 allows that different voltage thresholds for

1 either constant current or termination
2 voltage could be set via a DIP switch, which
3 is just -- call that an embodiment of what is
4 being claimed in all of -- within Claim 1 and
5 then repeatedly claimed elsewhere.
6 In 85, another specific case, where
7 "Kimura indicates that the charging process
8 is terminated after detecting that 'the
9 terminal voltage of the battery exceeds a
10 predetermined threshold.'"
11 I'm saying it's obvious that they are
12 referring to the -- what -- in Limitation 2
13 of Claim 1, [as read]: "responsive to
14 detecting one or more interruptions, sending
15 a response" -- okay. One sentence back.
16 {As read]: "Set of operational
17 conditions which conform to a set of
18 predefined interrupt conditions, wherein one
19 or more interruptions comprise at least one
20 of the device capability" -- go through all
21 three categories again.
22 Same in 86, where they talk about "data
23 services." Kimura's version of "data
24 services" is -- is, again, more specific. It
25 goes to the additional extent of talking

about time out after a certain period, which is standard practice in design. Again, it's just more specific.

So I considered it obvious that that is within the broader class of data services interruption, as mentioned in the '391.

97, more about data services.

I'm going to move -- as you can read in my paragraphs 88, 89, 90, and 91, talking all about just more specific statements in Kimura that are the same as or more than what is being claimed in the '391.

And then Kimura, if you look in the declaration, it provides greater detail about charge termination upon an interruption initiated by -- on the vehicle side or some either condition-met purpose or an emergency shutdown request, anything that should inhibit charging.

That is -- I am interpreting it as obviously the same as, if not the overall function of '391, at least what is mentioned in Claim 1 within device capabilities, interruption, and preference interruption.

Going to jump to Claim 4 now, which

was --

MR. SHAPIRO: Let's -- let's stop here. Let's take a break. I think we've been going for over an hour and a half. Let's do -- let's just do a ten-minute break, if that's okay.

(Short break taken.)

THE WITNESS: Would you like me to continue answering your last question?

BY MR. SHAPIRO:

Q. No. I think we were done with that question.

A. Oh, no. I was just getting started.

Q. We can --

A. Because you asked about four different claims.

Q. Right.

And then we -- then we -- then we -- when we saw how -- how comprehensive your answer was, we decided to limit it to Claim 1 as an exemplary case.

A. I didn't --

Q. Okay. So, Dr. MacCarley, are -- are there any elements of Independent Claim 1 that are not disclosed in Keith but would have been obvious

in your opinion?

A. Well, let me answer that two ways.

It's my contention that Claim 1 is anticipated by Keith, which I think technically means that nothing needed to be obvious if it was already anticipated. That's a stronger criteria.

I could leave it with that, or if you have -- if you want to jump straight in and say, well, why do you think, you know, this either anticipates or is obvious, point to something -- I could -- I could be more specific in my answer.

Over to you.

Q. So is that your answer?

A. Bec- -- let me rephrase.

As I state on page 17, I felt that Claim 1 was anticipated by Keith.

So as you asked the question, did I feel anything -- did I feel the need to use obviousness to connect the dots on any of these? No.

Q. Okay.

MR. STEIN: Just for the court reporter, though, I think the last answer looks like there's a transcription error.

"It's my contention that Claim 1 isn't anticipated."

He said "is anticipated."

THE WITNESS: Oh, did I accidentally --

MR. STEIN: I think it was just a transcription error. So just want to make sure.

THE WITNESS: Yeah. I'm referring to the lowest line in section -- paragraph 42 on the bottom of page 17, where I state, "Claims 1, 2, 4 through 9, 11 through 16, and 18 through 20 are anticipated by Keith."

MR. SHAPIRO: And, Counsel, the witness will have an opportunity to review the transcript. So I'm going to just caution you against interrupting and -- and making changes to the transcript at the -- during the deposition.

BY MR. SHAPIRO:

Q. Okay. Let's go back to your declaration, Dr. MacCarley.

In paragraph 9 of your declaration, you state, "Among the most relevant courses I have taught recently is Cal Poly course EE/BRAE 434, automotive engineering for a sustainable future, 2005-2002."

Do you see that?

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A. Yes, and there's an obvious typo. It's 2005 through -- I think the last time I taught that, it's probably '12.

Q. Okay. And that was my question. Thank you.

And in paragraph 9 of your declaration, you also state that you, "founded and advised two popular student engineering clubs, the Cal Poly Electric Vehicle Engineering Club (EVAC) (since 1996) and the Future Fuels Club (since 2005)."

Do you -- do you see that?

A. Yes, that's correct.

Q. Were you involved with any other student engineering clubs?

A. Oh, yes. I mean, I -- I was at Cal Poly for over 30 years, tenured for most that time. I was advisor to the IEEE for quite a long time.

I was -- co-advisor of the S- -- the Formula SAE Racing Team, co-advised with a faculty member from ME.

I was co-advisor of the Shell Supermileage Team, in which they -- we -- in one of these years, we took first with a car that we, against all odds of thermodynamics, achieved over a thousand miles per gallon with.

Let's see. I -- I've always been very involved -- I'm a very hands-on type person. So I've been very involved as an advisor to automotive and electric vehicle type student projects.

I think in the declaration, I did elaborate on one project that we were particularly proud of with the Electrical Vehicle Engineering Club, in which we designed and constructed and demonstrated publically an automated battery exchange system combination charging battery exchange system that could perform the entire operation in about 60 seconds without the operator even getting out of the car, which, even to this day, makes it superior to any other much, much, much more expensive technology built by any company in the world.

Q. The --

A. We did it --

Q. I'm sorry. You can finish your answer.

A. I said, we did it with an $80,000 budget.

Q. Wow. The Formula SAE Racing Team that you mentioned, is that the Cal Poly Racing Club?

A. There is no specifically named "Cal Poly Racing Club" because we, being a very practically

oriented engineering school, have at least seven -- seven, eight, even more named racing teams for all the different collegiate competitions that we participate in.

And in the EVC, we sort of broke the mold by going outside collegiate competitions. Competed in a world-class competition and took second place in competing with a shoestring budget against teams that had -- hired IndyCar drivers and had $8 million budgets. We were very proud of that. That was our electric race car in the late '90s.

MR. SHAPIRO: Okay. Renee, do you have a way of marking a document that I move into the marked exhibits folder?

(Reporter clarifying.)

MR. SHAPIRO: Can we do -- make it -- I'm going to move an exhibit in.

Can we label it "MacCarley 001"?

MR. STEIN: Do you not want to use the next number in your 2000 sequence, Jason?

MR. SHAPIRO: No. Let's just use this for now.

I mean, if we -- if we end up using it, then we'll give it the other exhibit number.

Let me just see if I can get this in here. All right. That's not -- -- that's not moving. Let me try this.

There we go.

(Exhibit 1 was received and marked for identification on this date and is attached hereto.)

BY MR. SHAPIRO:

Q. Go ahead and refresh your folder, and let me know when it's -- when you've got it in there.

Dr. MacCarley, are you -- are you able to see --

MR. STEIN: Before -- before we get too far, Jason, I want to object to the introduction of the exhibit on at least relevance, foundation, and scope grounds.

BY MR. SHAPIRO:

Q. Dr. MacCarley, are you -- are you able to see the exhibit?

A. I see a new file. I will attempt to open it, the one named "Our Partners, Cal Poly Racing"?

Q. Yes.

A. What you're Looking at is the Formula Baja team. And this is something from the Cal Poly webpage in which they highlight some of the

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1 racing activities, not all of them. That --
2 Q. Now is -- go ahead. I'm sorry. Complete
3 your answer.
4 A. That's the one entry I was not directly
5 involved in because there's no electronics
6 involved. This was entirely mechanical
7 engineering, whereas the others involved either
8 electric vehicle technologies or electronic fuel
9 injection. That's how you get a thousand miles
10 per gallon from an ultralight vehicle.
11 So you happened to bring up a frame of
12 one that I was not involved in.
13 Q. Okay. Well, have any of the student
14 engineering clubs that you've been involved with
15 every received support from Tesla?
16 MR. STEIN: Objection. Form.
17 Foundation. Scope.
18 THE WITNESS: Let me think about that.
19 We've certainly never received a
20 financial donation.
21 I -- I do believe maybe about, oh, maybe
22 ten years ago -- I'm just wildly guessing,
23 and we received the donation of two Tesla
24 North American standard chargers, Level 2
25 chargers, charge ports, for educational

1 purposes.
2 So that I -- I could use those in my
3 classes, in which I discuss electric vehicles
4 and the electronics of electric vehicles,
5 which I kind of specialize in.
6 BY MR. SHAPIRO:
7 Q. Do you recall receiving any other type of
8 support from Tesla?
9 MR. STEIN: Objection. Form.
10 Foundation. Scope.
11 THE WITNESS: Well, now that you
12 mentioned it -- these aren't things that I
13 think about a lot.
14 I -- I have on several occasions taken
15 student groups, either on behalf of the
16 classes that I teach or the electric vehicle
17 engineering club or other engineering clubs
18 that I've been asked -- even if I'm not the
19 primary advisor, they bring me in because I
20 have the expertise they need.
21 We did, actually, visit Tesla in their
22 earliest days when they were operating out of
23 not much more than a garage, converting Lotus
24 Elises to Tesla Roadsters.
25 And at that time, they were willing to --

1 they shared some of their batteries with us.
2 This was back in the day when they were
3 assembling several thousand 18650 cells into
4 their -- actually, I'm not sure that that was
5 the correct number for the cell size. That's
6 the one they currently use.
7 But we had a chance to -- I had a chance
8 to -- with -- you know, courtesy of the
9 engineering people, introduce them to the new
10 future trends. This is when Tesla had
11 recently been acquired by Mr. Musk from the
12 original founders.
13 We've also multiple times been up to view
14 their facilities in this area, including your
15 facility in Palo Alto.
16 We have not received anything from them
17 other than the courtesy of sharing their time
18 and access to show students how they build
19 their vehicles and chargers and -- and some
20 of their innovative marketing too.
21 BY MR. SHAPIRO:
22 Q. Did any of the student engineering clubs
23 that you've been involved with ever receive an
24 offer of support from Tesla?
25 MR. STEIN: Objection -- same objections.

1 Form.
2 THE WITNESS: Club -- offer of support?
3 You said, a club received an offer of
4 support, which would -- I'll answer that
5 in -- to the best of my knowledge, over the
6 years that I've been involved in this area as
7 a professor, as a teacher, I'm sure that at
8 least 30 of my students took jobs at Tesla.
9 I was -- I was instrumental in forwarding
10 my best students for a request of a recruiter
11 from Tesla, that also happened to be one of
12 my former students.
13 So being that they were one of the most
14 advanced opportunities, one of the most
15 prestigious for someone coming out of Cal
16 Poly to enter in those years, I -- that type
17 of offer of support, that is, hiring them --
18 something that I helped to facilitate.
19 But this was -- there was no financial
20 transaction between myself and any of the
21 clubs.
22 They didn't give us money, nor did they
23 offer to give us money -- your question.
24 BY MR. SHAPIRO:
25 Q. Okay. I'm going to share another

1 document that we'll mark Exhibit MacCarley 002.
2 Let me know when you have it,
3 Dr. MacCarley.
4 A. Let me get out of -- I need to refresh.
5 MR. STEIN: Where did you put it, Jason,
6 in the Exhibit Share thing?
7 MR. SHAPIRO: Yes. It's in the Exhibit
8 Share.
9 THE WITNESS: What I'm seeing is -- I
10 don't see Exhibit 2. I see the addition --
11 MR. SHAPIRO: It hasn't been marked yet.
12 (Exhibit 2 was received and marked
13 for identification on this date and is
14 attached hereto.)
15 BY MR. SHAPIRO:
16 Q. So this -- do you see the document
17 entitled, "Rapid Battery Interchange System"?
18 A. Yes.
19 Q. By Mason Borda and dated March 5, 2012?
20 A. I do.
21 Q. Okay. Do you recognize this document?
22 MR. STEIN: Before we get too far, Jason,
23 I just want to object to the introduction of
24 the exhibit. It has not been shown to be
25 relevant. The scope has not been

1 established, and there is no foundation or
2 authenticity.
3 THE WITNESS: I'm opening it.
4 Yeah. This was -- this was a senior
5 project report of which there are many senior
6 projects that come out of my club or course
7 projects.
8 And this was related to that
9 accomplishment I referred to before, in which
10 I have to say, it was -- it was about as
11 sophisticated a group effort as you can
12 imagine, and it was a wonderful,
13 collaborative effort of -- between students
14 and myself.
15 If you go back in my C.V., you'll find I
16 have several papers on automated battery
17 exchange for electric vehicles in the 2000
18 era that -- published 2002 and '03, things
19 like that.
20 So we were -- that's always been an
21 interest of mine. And my implementation was
22 volunteer with the help of students.
23 Again, something I'm particularly proud
24 of because we -- we accomplished with
25 volunteer student effort in a shoestring

1 budget considerably more than a lot of
2 incredibly well-investor-supported firms ever
3 did.
4 BY MR. SHAPIRO:
5 Q. Dr. MacCarley, do you -- does this
6 document that I've shared with you appear to be a
7 true and correct copy of the senior design project
8 report from Mason Borda?
9 MR. STEIN: Objection. Form.
10 THE WITNESS: 2012. You know, I -- I
11 wish I could tell you that I could swear to
12 it.
13 I could tell you that there's no -- I
14 have no reason to believe that it isn't 100
15 percent authentic, at least from going
16 through -- I've gone through up to the
17 acknowledgments and -- to the best of my
18 knowledge, looking at it, it is -- it is
19 absolutely genuine.
20 You did a good job.
21 BY MR. SHAPIRO:
22 Q. So on page 20 -- can you turn to page 21
23 of the report, Dr. MacCarley?
24 A. Sure.
25 Q. And we're talking --

1 A. I'm scrolling. It's the best I can do.
2 21 is in the -- okay.
3 Q. At the -- and I'm talking page 21 of the
4 document itself, not the PDF. Not the PDF
5 numbering but the document numbering.
6 A. I'm there. I --
7 Q. The first full paragraph in this report
8 states, "Tesla has offered to donate to our club
9 and I hope to pursue that offer to acquire lithium
10 ion batteries for our project."
11 Do you see that?
12 A. I do. And we have -- I have been blessed
13 with some very industrious students. I was not
14 aware of -- that one of the students, obviously,
15 articulate and enterprising, had received that
16 offer.
17 We did not receive any lithium batteries
18 from them. I think we could have taken it further
19 if we did.
20 But our concept was sufficiently
21 demonstrated using lead-acid batteries. If
22 anything, more advanced batteries that were just
23 coming online in 2012 -- they were new at the time
24 and not -- not cheap to give away, I should point
25 out.

They would have slightly improved the speed of our automated exchange apparatus by creating a more compact and lightweight battery module that is exchanged. That's more than you asked for but, no, I wasn't aware of that.

I can confirm we did not receive any lithium batteries from Tesla.

Q. Okay. Thank you.

Was your e-mail address at Cal Poly ever cmaccarl@tesla.elee.calpoly.edu?

MR. STEIN: Objection. Form. Foundation. Scope.

THE WITNESS: It definitely was because one of the things that I brought to Cal Poly was far more advanced knowledge of network computing when I arrived.

And Tesla was my own workstation. I purchased and built for the department and served as network administrator, basically, took care of everything for them, based upon my experience and knowledge from Purdue during my doctoral work.

And I named -- we decided to name all of our workstations after famous electrical engineers. And this is long before Elon Musk

ever thought of the idea of using the name of my workstation for his company.

So we had Gauss and Morse and Edison and you name -- Joule, Coulomb, funny names that mean nothing to most people, but they did to us because we were trying to be cute.

BY MR. SHAPIRO:

Q. Did anyone else use that e-mail domain name?

A. Well, Tesla is not the domain name. It is the second-level -- the domain name is calpoly.edu.

And so all of the addresses would appear as, like, tesla.calpoly.edu or morse.calpoly.edu, couloumb.

I am not aware of anyone else that used the name of my workstation within the Cal Poly domain.

You know, it's a big university. Hacking was in its infancy in those days. So I am not aware of anyone -- any other use of my subdomain name, which was my workstation.

MR. SHAPIRO: Okay. Counsel, I'd like to take a five-minute break, and I'll be back and let you know if I have any more

questions.

MR. STEIN: Okay. We'll see you in five.

(Short break taken.)

MR. SHAPIRO: Okay. So that's all I have at the moment. I'm going to reserve my time for more cross if you -- if you redirect.

But you can take it from here.

MR. STEIN: Okay. Well, we'll take a 15-minute break here just to talk through if we want to ask any questions. And then we'll jump back on. Maybe -- let's call it ten minutes, Jason. We'll hop back on in ten minutes. Okay?

MR. SHAPIRO: That sounds good. Thanks.

(Short break taken.)

MR. STEIN: All right. Thank you very much, Dr. MacCarley, for your time and testimony today. I have no questions.

MR. SHAPIRO: Okay. I have no further questions either.

(TIME NOTED: 11:47 a.m.)

*** ERRATA SHEET ***

NAME OF CASE: TESLA V. GRAPHITE CHARGING

DATE OF DEPOSITION: OCTOBER 17, 2024

NAME OF WITNESS: C. ARTHUR MacCARLEY

Reason Codes:

1. To clarify the record.
2. To conform to the facts.
3. To correct transcription errors.

PAGE	LINE	FROM	TO	REASON

_____

Subscribed and sworn before me

This____day of_____,20__.

_____ _____

(Notary Public) My Commission Expires:

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DECLARATION UNDER PENALTY OF PERJURY

I, C. ARTHUR MacCARLEY, do hereby certify under penalty of perjury that I have read the foregoing transcript of my deposition taken on October 17, 2024; that I have made such corrections as appear noted herein; that my testimony as contained herein, as corrected, is true and correct.

DATED this day of ,
2024, at .

_____
C. ARTHUR MacCARLEY

STATE OF CALIFORNIA)
(ss.
COUNTY OF LOS ANGELES)

I, RENEE HARRIS, do hereby certify that I am a licensed Certified Shorthand Reporter, duly qualified and certified as such by the State of California;

That prior to being examined, the witness named in the foregoing deposition was by me duly sworn to testify to tell the truth, the whole truth, and nothing but the truth;

That the said deposition was by me recorded stenographically;

And the foregoing pages constitute a full, true, complete and correct record of the testimony given by the said witness;

That I am a disinterested person, not being in any way interested in the outcome of said action, or connected with, nor related to any of the parties in said action, or to their respective counsel, in any manner whatsoever.

DATED: October 25, 2024

Renee Harris, CSR, CCR, RPR
CA CSR No. 14168,
NJ CCR No. 30XI00241200

Graphite Charging Company Exhibit 2013
IPR2024-00388

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& 3:3

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001 76:19
002 82:1
03 83:18

1

1 1:25 4:17 23:5,15,24 24:7,11,18 25:25 29:11,22 31:19 33:6 34:6 35:18 36:12,15,18,24 37:14 40:1 52:5,10 53:1,2 53:7,11,22 54:16 55:3 62:4,4,13 63:20,23 69:4 69:13 70:23 71:20,24 72:3 72:16,24 73:8 77:5 89:6
100 84:14
1001 4:14 22:5 22:12,13,18
1002 58:11
1009 4:15 9:19 9:24 10:14 11:11 22:12 51:24
11 44:9 49:7,13 52:5 73:9
11:47 88:21
11a 52:24
12 49:21,22 74:3
131 32:25
14 56:7 57:9 58:17 59:4
1400 3:6
14168 1:23 2:22 91:24
15 36:12,15,18 36:25 42:10 52:5,10 53:2 88:9
16 43:20 50:21 73:9
17 1:17 2:21 72:15 73:8 89:3 90:6
18 44:19 49:7 52:5 73:9
18650 80:3
19 36:15
19806 3:16
1996 74:10

2

2 4:20 27:14 42:23 50:21 57:18 68:22 69:12 73:9 78:24 82:10,12 89:7
20 36:12,16,18 36:19,25 42:10 52:6,10 53:2 73:10 84:22 89:21
2000 76:21 83:17
2002 83:18
2005 74:2,10
2005-2002 73:24
2012 4:19 82:19 84:10 85:23
2024 1:17 2:21 5:2 89:3 90:6 90:12 91:22
2024-00387 5:16 8:10
21 84:22 85:2,3
22 4:15
24 56:24 58:16
25 91:22
25025 91:23

3

3 46:8 89:8
30 46:15 58:12 74:16 81:8
30xi00241200 2:24 91:25
34 11:12,18 15:18 18:4 19:13,24
391 8:5 22:18 23:6,16,24 24:18 26:1 29:12,23 31:19 33:7 34:6 35:18 36:13,24 37:7,22 38:17 39:13 40:17 41:10 42:23 43:20 44:4,10 44:20 48:9 49:21 52:6 55:2,3,4,18 56:20 57:1,7 57:23 58:7,21 59:11 61:21,25 62:9,13,18 63:5,9,18,24 64:23 65:8,25 67:2,22,25 68:21 70:6,12 70:22
391's 65:17

4

4 44:4 49:7,8 49:11 52:5,25 70:25 73:9
42 51:25 52:3 73:7
434 73:22
49 53:25 54:22

5

5 4:3,19 49:20 49:22 82:19
53 55:11
56 56:2
57 56:18
58 56:24

6

6 58:8,11
60 75:13
61 58:8
62 58:9
63 59:3
64 59:14
66 60:4
67 60:13 61:1
68 61:3
6969930 1:24

7

7 5:2 46:15
70 62:5
71 62:14
72 62:25
74 62:20 63:6
75 65:1
77 4:17

8

8 36:12,15,18 36:24 42:10 52:5,10 53:2 76:10
8,103,391 1:13 2:13 4:14 5:17 8:7 22:15,21
80,000 75:21
82 4:20 67:22
85 69:6
86 69:22
88 70:9
89 70:9
8:09 2:20 5:3

9

9 4:14 43:19 50:21 73:9,20 74:6
90 70:9
90s 76:12
91 1:25 70:9
94304 3:7
97 70:7

a

a.m. 2:20 5:3 88:21
able 22:3 77:11 77:18
abnormalities 62:7,15 65:14 65:16 66:23 67:19 68:10
abnormality 62:19
above 62:1 63:7
absolutely 37:10 84:19
academic 21:15
access 9:25 10:17,21 80:18
accidentally 73:2
accomplished 83:24
accomplishm... 83:9
accordance 46:10
accounted 66:18
accurately 8:2 37:11
achieved 74:24
acid 85:21
acknowledg... 84:17
acquire 85:9
acquired 80:11
action 51:4 91:20,21
actions 51:5
activate 51:9
activating 50:4 50:6
activities 78:1
actually 28:24 61:6 63:10 65:24 68:11 79:21 80:4
add 9:1 51:1
added 54:3
addition 82:10
additional 62:6 69:25
address 45:11 86:9
addressed 40:1 45:23
addresses 87:13
adds 68:13
administrator 86:19
admit 47:4
admits 56:21
advanced 81:14 85:22 86:15
advise 63:21
advised 74:7,19
advisor 74:17 74:18,21 75:3 79:19
ago 78:22
agree 9:10 40:15
ahead 14:25 40:10 77:9 78:2
alexander 3:4
alexander.stein 3:8
allow 28:3 32:25 60:13
allowed 53:16 57:22
allowing 17:23 33:17 43:9 48:21
allows 16:19,21 68:25
alo 2:19
altered 28:13
alto 3:7 5:1 80:15

Graphite Charging Company Exhibit 2013
IPR2024-00388

ambiguity 15:2 15:8,14 16:19 16:24 17:23 25:6
ambiguous 13:17 14:23
american 78:24
amplified 56:23
analysis 67:16
angeles 91:3
annotated 9:13 9:15
answer 6:18 7:4,5,12 13:5,6 13:7 14:4,7 20:17 21:5,8 25:19 26:24 28:22 32:5 33:18 34:21 37:24 39:22 40:11 42:5,13 44:13 45:24 46:6 47:14 52:21 53:21 71:19 72:2,11 72:13,22 75:20 78:3 81:4
answered 17:5 17:16 31:2 37:11 43:6 64:2
answering 53:15 54:7 64:3 71:9
answers 6:9 50:3
anticipated 72:4,6,16,25 73:1,10
anticipates 72:10
anybody 61:7
anyway 9:8 12:9
apart 63:17
apparatus 67:20 86:2
appeal 1:3 2:3 61:3
appear 23:2 37:2,16 40:16 40:20 42:1 43:24 49:15 65:8 84:6 87:13 90:7
appearances 3:1
appearing 2:19 3:10
appears 17:24 24:17
applications 8:12,18
applied 12:11 12:16 15:22 17:20 18:8 19:2,17,23 30:5,8,15 32:20 33:15 34:10 35:25 42:19 44:24 45:17 49:25
applies 11:15 11:22 12:1
apply 14:12,20 17:25 34:17 42:7,12 43:4
appreciate 53:18
appropriate 14:12,19 28:16
area 25:6 61:12 80:14 81:6
areas 45:9
arguably 62:23 66:3
argued 13:15
arrived 86:16
art 5:22 12:18 15:24 17:22 19:19
arthur 1:16 2:18 4:16 5:5 5:20 89:4 90:3 90:16
articulate 85:15
artificial 17:24
ashraf 3:21
asked 7:12 17:4 17:15 19:7 23:9 29:4 31:1 34:15 39:23 40:4 43:5 52:24 57:18 64:1 71:15 72:17 79:18 86:5
asking 19:22 39:17 45:14,16
aspects 43:25
assemblage 47:21
assembling 80:3
associated 26:19 40:4
assumed 10:10
assure 46:20
attached 9:21 22:7 77:7 82:14
attempt 77:20
attention 37:2 67:6
attorney 7:2,4 7:17
attorneys 12:8
authentic 84:15
authenticity 83:2
automated 75:10 83:16 86:2
automatically 68:2
automotive 73:23 75:4

availability 45:8
available 9:7
aware 8:3 9:25 12:19 13:9,23 14:6,7 40:19 42:2 46:20 56:9,11 61:16 61:22 66:11 85:14 86:5 87:16,21

b

b 63:20
b2 8:8
back 9:3 21:9 34:20 38:10 50:18 51:23 67:1 69:15 73:18 80:2 83:15 87:24 88:11,12
baja 77:24
based 18:20 41:25 50:12 86:20
basically 18:18 40:2 67:25 86:19
basis 14:18 59:5
batteries 80:1 85:10,17,21,22 86:7
battery 4:17 30:15 31:14 35:3 36:3,6 57:5,9,24,25,25 58:1,1,18 59:24 60:7 66:5,18,25 68:4,9,18 69:9 75:10,11 82:17 83:16 86:3
bec 72:14
beginning 24:22
behalf 3:2,12 79:15
believe 12:15 13:13 15:21 16:12 17:18 19:16 41:23 42:21 53:15 54:7 55:1,17 56:9,16 57:14 57:21 59:9 61:4 65:25 78:21 84:14
best 18:3 42:5 81:5,10 84:17 85:1
better 46:6
beyond 42:19
big 87:19
binary 31:7
bit 14:23 38:6 40:25 46:5 68:6
black 46:8
blessed 85:12
block 58:13
board 1:3 2:3 11:14,21
bockius 3:3
borda 4:17 82:19 84:8
bottom 73:8
boy 47:20
brae 73:22
break 7:8,9,13 35:6,15 60:7 71:3,5,7 87:24 88:3,9,15
breakage 66:6
breaks 7:19
briefly 6:3
bring 78:11 79:19
broad 56:20
broader 70:5
broadly 28:10 38:24 39:21 49:11
broke 76:5
brought 21:1 50:13 86:14
budget 75:21 76:8 84:1
budgets 76:10
build 80:18
built 75:16 86:18

c

c 1:16 2:18 4:16 5:5,20 89:4 90:3,16
c.v. 83:15
ca 91:24
cal 4:20 73:22 74:8,15 75:23 75:24 77:21,24 81:15 86:9,14 87:17
calibration 32:9
california 2:20 2:22 3:7 5:1 91:1,8
call 21:15 69:3 88:11
called 5:6
calls 12:22 14:1
calpoly.edu. 87:12
capabilities 27:18 28:6 30:19 31:20,24 32:2,20 49:14 62:8,22 66:2,8 70:23
capability 28:7 32:8,13 45:7 69:20
capable 18:21 32:15
car 74:23 75:14 76:11

care 86:20
careful 68:7
carefully 38:7
carl 5:20
case 1:12 2:12 12:5,9 13:21 28:6 51:9 56:1 58:22,24 59:24 68:24 69:6 71:21 89:2
cases 14:22 42:2
categories 40:3 57:22 64:22 69:21
category 65:17
cause 30:13
caused 60:5
causing 27:10
caution 73:13
caveat 7:11
ccr 1:23 91:24 91:25
cell 80:5
cells 80:3
certain 15:6 32:8 40:15,19 59:23 70:1
certainly 15:15 34:18 40:23 56:21 78:19
certified 2:22 2:23 5:7 91:6,7
certify 90:3 91:5
chance 80:7,7
change 50:12
changes 73:15
charge 30:15 35:3 55:1,13 55:16 56:24 57:12,24 58:16 59:5,24 60:7 61:18 66:6 70:15 78:25
charged 36:7 59:19
charger 58:17 62:15 63:19 66:15 67:1 68:4
chargers 78:24 78:25 80:19
charging 1:8 2:8 5:15 18:19 19:1 20:6,10 24:4,25 25:4,8 26:2,6,16 27:12 28:15 31:13 34:3 36:5 37:14,20 38:16 43:16 46:12,14,17 47:1,3,5,7 48:17,18 49:20 49:24 51:13,16 54:2,20 55:6 55:15 56:4,8 57:24 59:16 61:9 62:16 63:16 68:9 69:7 70:19 75:11 89:2
chat 10:15,16
cheap 85:24
chosen 34:17
circuit 60:7 66:6,13
circumstances 12:20 13:10,23
cite 65:23 66:4
cited 12:14 63:12
citing 39:16
claim 11:14,18 11:22 12:1,10 13:13,20 14:20 16:15 17:13 18:16 23:5,15 23:24 24:7,11 24:18,23 25:25 27:14 29:11,22 31:19 33:6 34:6 35:18 37:14 40:1 42:23 44:4,9 44:19 53:7,11 53:22 54:16 55:3 62:3,4,13 63:23 69:4,13 70:23,25 71:20 71:24 72:3,15 72:24
claimed 69:4,5 70:12
claims 11:13,20 20:15,22 21:1 21:10,12 26:11 28:21 30:18 32:4 36:12,24 37:3,7,21 38:1 38:17,25 39:13 39:18 40:16,21 41:10,13,18 42:10,11,22 43:19 49:1,2,7 49:16,16,20 50:21 52:5,10 71:16 73:8
clarify 13:16 17:10 67:6 89:6
clarifying 21:25 22:4 25:12,16 38:11 39:5 76:16
clarity 54:3
class 70:5 76:7
classes 79:3,16
clear 13:18 18:15 29:19 41:16 55:2,11 62:5,14 65:14 66:7
clearly 62:7 67:5
click 10:20
club 74:9,10 75:9,23,25 79:17 81:2,3

83:6 85:8
clubs 74:8,14 78:14 79:17 80:22 81:21
cmaccarl 86:10
code 61:16
codes 89:5
collaborative 83:13
collegiate 76:3 76:6
column 46:15
combination 75:11
come 34:13 83:6
coming 81:15 85:23
comma 25:7
comment 12:25
commission 89:23
common 40:23 41:2,9,17 61:4
communicate 58:23
communicated 55:24,25 56:1
communication 28:1 31:9 34:23 58:2,15 60:8 62:24 63:15 65:13,15 65:18
compact 86:3
company 1:8 2:8 5:15 75:17 87:2
compared 33:21 66:19
comparing 23:1 31:4
compelled 51:1
competed 76:7
competing 76:8
competition 76:7
competitions 76:4,6
complete 15:4 40:11 78:2 91:16
completely 28:22 41:24
compliant 61:8
component 49:12 62:10 63:1,1
components 46:18 47:4
comprehensive 36:19 41:4 46:7 67:18 71:19
comprehensi... 30:17 37:11 47:12
comprise 69:19
comprising 25:2
compromised 32:8
compromising 55:8
computational 18:22
computer 8:14 8:18 24:24 25:1 55:5,7
computing 86:16
concept 85:20
concern 35:1
conclusion 12:23 14:2
condition 31:12 61:11 66:22 70:17
conditions 29:25 30:5,12 30:25 39:12 60:22,23 61:17 64:20 65:6,21 68:1 69:17,18
conductive 56:8
confer 7:17
confidence 47:24
confident 47:9
confirm 22:14 22:21 23:3 86:6
confirming 56:2
conform 29:24 30:4,11,24 39:11 69:17 89:7
conforms 65:5
connect 57:4 72:19
connected 91:20
connecting 60:2
connection 5:24 56:14 60:10,14 65:12
consider 9:18 14:11,15 65:11
considerably 84:1
consideration 14:19
considerations 15:1,8
considered 27:16 28:25 39:25 56:5 59:12 70:4
considering 26:14
consistent 25:19 32:3 34:18 37:16 39:17 41:20 42:15 43:24

47:10 49:10,15
consistently 42:1
consolidate 64:15
constant 69:1
constitute 34:2 62:22 91:15
constructed 75:9
construction 11:14,18,22 12:1,10 13:14 13:21 14:12,20 16:15 18:1 41:12
constructions 12:16 15:21 16:3,8 17:19 19:16
construe 17:2 50:22
construed 11:13,21 17:12
consult 7:17
contained 90:8
contend 67:23
contention 48:24 72:3,24
context 15:5 18:16 20:18 21:10,12 29:18 32:5 42:3 47:23,25 48:4 48:9 51:10 54:4,19 55:2 56:15 58:19 59:2 63:18
continue 27:2 63:21 64:6,24 71:9
continuing 56:11 62:3 65:23
continuously 61:18
control 55:17 55:20
controller 55:1 56:14,24 57:5 57:9 58:17,18 59:4 65:13 66:25 67:1
controllers 55:13
controls 18:19
converting 79:23
copies 8:23,25 9:11
copy 21:2 23:1 23:8 84:7
core 26:20
correct 8:14,20 15:25 19:20,21 21:20 53:2,4,4 54:11 74:12 80:5 84:7 89:8 90:9 91:16
corrected 90:8
corrections 90:7
correctly 31:16 52:18
coulomb 87:4
couloumb 87:15
counsel 3:1 9:10 13:4 35:8 73:11 87:23 91:22
county 91:3
couple 8:4
course 6:6 73:22 83:6
courses 73:21
court 2:23 6:9 6:10,18 72:21
courtesy 80:8 80:17
courts 11:15,23 12:2,20 13:10 13:24
covered 67:17
covers 28:19
creating 86:3
criteria 72:6
critical 67:16
cross 88:6
csr 1:23 91:24 91:24
current 18:20 59:7,18,23,24 66:16,17 68:3 69:1
currently 80:6
cursory 41:25
cute 87:6

d

data 27:23,25 28:18 30:20 31:9 34:7,10 34:23 55:23 58:14 62:24 63:15 65:17,19 65:19,22 69:22 69:23 70:5,7
date 9:20 22:6 63:8 77:6 82:13 89:3
dated 82:19 90:11 91:22
day 75:15 80:2 89:21 90:11
daylight 2:20
days 79:22 87:20
dc 63:16
decided 71:20 86:23
decision 43:13 50:11 51:8
decisions 18:20
declaration 4:15 8:24 11:9 11:11,13 12:12 12:13 14:11 15:18,20 17:3 17:14,18 18:9

Graphite Charging Company Exhibit 2013
IPR2024-00388

19:2,13,15,24 29:2 30:6 32:21 33:1,15 34:11,14,19 35:25 43:4 44:25 45:3,10 45:15,19 46:4 49:25 50:25 51:24,25 52:3 52:24 55:12 58:12 61:2 64:8,16 70:14 73:18,20 74:6 75:6 90:1
deep 16:10
define 30:14 65:21
defined 28:10
defining 49:11
definitely 86:13
definition 21:15 29:6 30:8 36:4 39:4 46:21 47:6 48:16
degrees 67:12
delaware 3:16
delay 38:20 58:2
demonstrated 75:10 85:21
depart 12:20 13:10,24
department 86:18
dependent 41:12 47:23
deposed 5:24
deposition 1:16 2:18 6:7 7:18 7:19 10:11 24:17 42:9 73:16 89:3 90:5 91:10,13
describe 54:21
describing 64:20
descriptions 63:4
design 61:9 70:2 84:7
designated 29:17
designed 75:9
desire 51:12
detail 15:16 40:13 51:2 58:8 59:2 64:19 68:13 70:14
detailed 57:19 63:3
detect 66:12,23
detected 32:10 60:23 66:21
detecting 67:19 67:20 68:1 69:8,14
detection 62:14 65:2 66:4
detects 65:13
determines 59:4
determining 65:3
device 18:22 27:18 28:5,8 30:19 31:20,24 32:2,8,13,15,20 49:14 66:2,3,8 69:20 70:23
devices 27:21
devlin 3:13 5:14
devlinlawfir... 3:17
devoted 52:23 64:19 67:5
diagram 46:9 58:13
difference 24:9 33:23
differences 38:2
different 6:24 19:8 29:2 42:7 42:12 43:25 46:23 48:5,9 55:18 59:20 68:25 71:15 76:3
differently 42:4
dip 69:2
direct 49:2
directly 34:20 78:4
disappeared 31:11
disclose 52:16 52:16
disclosed 52:11 53:11 54:16 71:25
discuss 79:3
discussed 13:3 19:12 42:9,11 45:2 58:14
disinterested 91:18
displaying 10:2
disrupted 32:9
disruption 34:23 62:19
distinction 12:3 12:7 15:12 44:1
distributed 26:12
district 11:15 11:23 12:2
doctoral 86:22
document 9:24 11:9 13:17,21 16:22 18:14 21:23 22:17,20 47:11 76:14 82:1,16,21 84:6 85:4,5

documents 10:2
doing 32:15 58:20 64:8
domain 87:8,10 87:11,18
donate 85:8
donation 78:20 78:23
dots 57:4 60:2 72:19
dr 5:12 9:12,23 12:19 13:9 14:10 17:2 18:6,24 22:9 22:15,20 24:6 24:14 29:7,21 29:22 31:18 34:5 35:17 36:10,23 37:4 37:18 38:14 39:9 40:10,15 41:9 42:7,23 44:12 49:19 50:20 51:23 71:23 73:19 77:11,18 82:3 84:5,23 88:17
drag 11:1
dragging 22:1
drivers 76:9
drop 27:5
dropped 68:16
due 62:18
duh 60:17,17 60:17 65:4,4,4
duly 5:6 91:6 91:10
duplicate 58:11

e

e 86:9 87:8
earlier 13:3 24:16 42:9
earliest 79:22
early 51:13 59:14
easier 10:22 23:8 36:21,22
edison 87:3
educational 78:25
ee 73:22
effort 83:11,13 83:25
eight 76:2
either 13:14,18 17:23 28:1,11 31:6 33:20 51:12 66:13 69:1 70:17 72:9 78:7 79:15 88:20
elaborate 45:20 46:18 75:7
electric 18:19 24:25 35:2 36:2 44:5,8,18 44:23 46:11,14 46:17 47:1,3,7 47:15 48:7,18 49:5,12 50:13 55:7 60:6 61:15 66:5 74:9 75:4 76:11 78:8 79:3,4,16 83:17
electrical 75:8 86:24
electricity 25:9 35:19,24 54:6 54:23 59:14
electronic 27:20 55:23 78:8
electronics 78:5 79:4
element 54:23 56:6 58:17
elements 52:10 53:10 54:15 71:24
elises 79:24
elon 86:25
embodiment 46:10 69:3
embodiments 56:19
emergency 51:14 70:17
encapsulated 39:2
ended 59:5
energy 18:7 23:10,14 24:1 24:2,11,15 25:3,21 26:14 27:11 36:11 37:5 46:9,11 56:13,19,25 58:1,15 60:12 60:16,19 67:3
engine 18:8 23:11,15 24:1 24:3,12,16 25:3,21 26:15 27:11 28:2 36:11 37:6 56:13,20,25 57:13 58:15 60:17,20 67:3
engineering 73:23 74:8,9 74:14 75:8 76:1 78:7,14 79:17,17 80:9 80:22
engineers 86:25
enter 81:16
enterprising 85:15
enters 66:18
entire 63:17 75:12
entirely 78:6
entitled 82:17

entity 34:24 43:14 50:11 51:8
entry 78:4
enumerate 26:22 41:5
enumerated 64:18
environment 31:5 39:6 50:14
equally 63:18
equipment 67:20
equivalent 56:12
era 83:18
errata 89:1
error 72:23 73:4
errors 89:8
especially 43:10
esq 3:4,5,14,15
essentially 59:16
established 83:1
evac 74:9
evc 76:5
event 31:8 34:2 50:13 51:12 66:9
events 28:3 63:5 68:6,7
ex1009.pdf. 11:7
exact 68:12
exactly 30:9 58:5
examination 4:2 5:10
examined 5:7 91:9
example 32:12 68:24
examples 32:13
exceed 31:6
exceeded 33:24 50:9 68:16
exceeding 40:5 40:7
exceedingly 46:3
exceeds 69:9
except 21:21
exchange 16:16 54:24 66:25 75:11,12 83:17 86:2
exchanged 86:4
exclusively 51:10
excuse 52:25 58:21 61:15
execution 18:8 23:11,15 24:1 24:3,12,16 25:3,21 26:15 27:11 28:2 36:11 37:5 56:13,19,25 57:13 58:15 60:16,20
exemplary 71:20
exhibit 4:13,14 4:15,17,20 9:19,24 10:4,8 10:14,16,21 11:1 21:20,23 22:5,10,13,14 22:18 51:24 58:11 76:18,25 77:5,15,19 82:1,6,7,10,12 82:24
exhibits 4:12 8:23 22:1,2,11 76:15
exist 14:6
expensive 75:16
experience 86:21
expert 4:15 17:9
expertise 79:20
expires 89:23
explain 11:25 15:16 16:2,7 38:20
explaining 64:12
explains 65:1
express 12:15 15:21 16:3,8 16:13 17:19 19:16
expressing 59:1
expressly 17:25
extensive 52:23 57:20
extent 9:5 69:25
external 28:3 28:12 39:6 43:13 47:5 50:10 51:8 63:5
externally 28:10
eye 45:8

f

facilitate 81:18
facilities 80:14
facility 80:15
fact 15:11 48:25 56:6 65:7
facts 89:7
faculty 74:19
failed 27:21 32:11
failure 31:9 60:6,8 62:10 62:11 66:5
failures 63:1

fair 6:25
fairly 40:3 61:4
faithful 46:21
fall 28:24 65:17
famous 86:24
far 65:23 77:14 82:22 86:15
fast 46:3
fault 28:8,25
fawzy 3:21
feel 17:25 72:17 72:18
feeling 51:1
felt 72:15
ferro 8:24 22:18 42:18 46:8,16 58:25 59:21 60:1,9 60:20
ferro's 44:1 48:16
field 55:21 56:9 58:3 61:5,7
figure 46:8 58:11 59:8
file 77:20
finally 63:6
financial 78:20 81:19
find 10:22 23:8 45:3,23,23 60:2 64:8 65:20 83:15
fine 35:11
finish 21:5,8 53:16 75:20
finished 21:5
firm 3:13 5:14
firms 84:2
first 5:6 18:13 23:20 24:7 32:6 35:18 45:19 46:20 53:7,25 59:15 60:19 74:23 85:7
five 35:6 87:24 88:2
flow 25:9 35:19 35:24
flowing 36:3 59:14
folder 11:7 22:2 76:15 77:9
follow 42:16
follows 5:8
foregoing 90:5 91:10,15
form 12:22 14:14 15:9 16:4 18:10 19:4 20:12 23:17 24:19 26:7 29:14 30:7 31:25 32:22 33:9,16 34:12 35:20 36:1,14 37:8 37:23 38:18 40:18 41:14 43:21 45:1 47:19 50:1,23 52:13 53:21 64:13,16 78:16 79:9 81:1 84:9 86:11
formal 9:17
formally 16:17
former 81:12
formula 74:19 75:22 77:23
forwarding 81:9
found 14:22 16:23 58:5
foundation 18:11 19:3 20:13 23:18 26:8 29:15 33:10 52:14 77:16 78:17 79:10 83:1 86:12
founded 74:7
founders 80:12
four 36:24 71:15
frame 78:11
front 8:13 21:2 22:25 45:7
fuel 78:8
fuels 74:10
full 5:18 85:7 91:15
fully 8:1 41:16
function 57:6 58:14,19 70:22
functions 47:4 57:1 62:2
funny 87:4
further 11:20 13:16 48:20,25 51:2 56:23 57:16 85:18 88:19
future 73:23 74:10 80:10

g

gallon 74:25 78:10
garage 79:23
gauss 87:3
general 15:13 20:18 21:15 66:1 68:20
generally 48:20 66:20
generating 34:2
generic 63:4
generically 27:4 42:14 59:19
genuine 84:19
getting 16:10 71:13 75:14

Graphite Charging Company Exhibit 2013
IPR2024-00388

give 7:23 21:14 21:19 38:3 41:11 42:5 49:1 64:11 76:25 81:22,23 85:24
given 91:17
glance 41:25 53:25
go 5:22 6:3 10:16 12:9 14:25 20:22 24:6 26:21 40:10 51:23 53:5 57:2 67:10 69:20 73:18 77:4,9 78:2 83:15
goes 62:20 65:23 69:25
going 6:7,12 9:3 11:17 13:7 13:7 20:20,22 24:21,21 27:4 30:17 32:5 35:4 37:9,25 41:6 42:13 47:23 48:25 51:15 61:21,24 64:6 68:21 70:8,25 71:3 73:13 76:6,18 81:25 84:15 88:5
good 5:12 6:2 32:12,13 84:20 88:14
gosh 17:6 40:21
graphite 1:8 2:8 5:15 89:2
great 65:24
greater 15:16 59:1 64:19 68:13 70:14
ground 6:4
grounds 77:16
group 29:16,17 83:11
groups 79:15
guess 39:22
guessing 78:22
guest 10:17,21

h

h 5:21
hacking 87:19
half 19:9 71:4
hands 26:18 75:2
happened 78:11 81:11
happens 7:3
harris 1:23 2:21 38:9 91:5 91:24
head 6:20
hear 44:17
heard 19:5
hearing 13:14 16:15
held 59:1
help 6:10 83:22
helped 81:18
helpful 20:25 53:19
hereto 9:21 22:7 77:7 82:14
hesitating 32:23
high 58:13 62:11 63:2,16 66:20
highlight 77:25
highlights 9:5 9:16
hired 76:9
hiring 81:17
hold 9:24 21:17
hop 88:12
hope 31:15 40:12 85:9
hoping 41:6
hour 7:8 35:5 71:4
housekeeping 8:4
human 43:13 50:4 51:7

i

idea 87:1
identical 23:2
identification 9:20 22:6 77:6 82:13
identified 41:24
identify 29:5 41:1,17 45:9 52:9 53:8,10 54:15
ieee 61:14 74:17
illustrating 58:13
illustrative 46:10
imagine 83:12
immediately 18:15
implementati... 83:21
implemented 24:24 25:1 55:5,7
important 6:11 6:17 66:22
impressed 66:10
improved 86:1
including 7:19 57:1,23 58:4 62:9 80:14
inconsistent 16:23 42:21 48:14
increase 25:15
incredibly 84:2
independent 36:24 37:2,7

Graphite Charging Company Exhibit 2013
IPR2024-00388

37:21 38:17 39:13 40:16,20 41:10,13 42:10 52:10 53:11 54:16 71:24
index 4:1
indicate 28:15
indicates 36:2 59:13 69:7
industrious 85:13
indycar 76:9
infancy 87:20
information 16:16 54:24
informed 7:20
infrastructure 28:3 44:6,9,19 44:24 45:10 46:9,12,13,19 46:22 47:13,16 48:8,17 49:3,6 49:13
inhibit 70:19
initiate 59:25
initiated 70:16
initiation 55:15 60:19
injection 78:9
inner 5:15,25
innovative 80:20
input 28:12 33:22 43:14
inputs 47:6
inside 22:17
insight 65:25
instance 16:14 51:14 58:7 63:2 64:18
instructions 16:13
instructs 7:4 13:5
instrumental 81:9
intellectual 48:23
intelligence 54:3
intended 55:3 62:7
intent 54:7
interchange 4:18 82:17
interest 63:10 83:21
interested 91:19
interject 20:11
internal 27:20
interpret 15:11 17:9 42:20 61:24,24
interpretation 25:20 34:22 39:3,16 42:12 44:2 46:25 47:10 48:22 53:24 54:10 56:21 59:13 61:13 65:9 66:1
interpretations 42:16,17 48:3 60:3
interpreted 15:6 17:7 33:4 48:5 55:9 59:25 67:15
interpreting 46:19 60:15 70:20
interrupt 26:18 27:8 28:2 29:25 30:5,12 30:24 39:12 43:3,12 57:7 58:20 60:21,22 65:5,21 67:2 69:18
interrupted 53:15
interrupting 73:14
interruption 27:15,19,23 28:6,9,18 30:14,19,20,21 31:13,21,24 32:3,14 33:8 33:14,19 34:3 34:7,10 35:2 42:25 43:15,19 50:21 58:21 60:24 62:8,18 64:20,22 65:2 66:8 68:8,23 70:6,15,24,24
interruptions 25:10 57:23 60:1,5 62:23 62:24,24 65:19 65:22 67:21 68:6 69:14,19
introduce 80:9
introduction 77:15 82:23
investor 84:2
involve 40:6
involved 74:13 75:2,3 78:5,6,7 78:12,14 80:23 81:6
involves 65:3
ion 85:10
ipr 8:9,10,22 11:10
ipr2024-00387 1:12 2:12
item 58:16
items 28:20

j

j1772 56:10
jason 3:14 5:13 51:18 76:21 77:14 82:5,22 88:12

jersey 2:23
job 1:24 6:11 84:20
jobs 81:8
joule 87:4
jshapiro 3:17
jump 70:25 72:8 88:11
jumping 60:4
justify 35:2

k

keep 64:6,8
keith 71:25 72:4,16 73:10
key 64:17
kimura 52:4,11 52:16 53:12 54:10,17,25 55:14 56:5,12 57:8,19 58:6 58:10,10,18,24 59:13 60:15,18 62:2,16,20 63:24 64:19 65:1,23 66:24 66:24 67:14,23 68:11,13,24 69:7 70:10,13
kimura's 57:4 59:3 62:19 69:23
kind 38:22 79:5
know 6:23 7:10 55:21 61:23 72:9 77:10 80:8 82:2 84:10 87:19,25
knowledge 55:20 59:2 61:5,6,14 81:5 84:18 86:15,21

l

l 5:20
label 76:19
language 32:17
late 76:11
law 3:13 5:14
lead 31:13 43:15 62:16 68:8 85:21
leading 66:15
leakage 57:24 60:6 66:4,12
leave 12:24 72:7
leeway 48:21
legal 12:4,23 14:2
legally 7:22
level 20:18 58:13 78:24 87:11
lewis 3:3
license 42:19
licensed 91:6
lightweight 86:3
likewise 56:20
limit 71:20
limitation 23:19,25 24:7 25:25 29:8,11 29:22 30:9 31:19 33:6 34:5 35:18 37:13 57:18 62:4 63:20 69:12
limitations 63:23
line 24:4 46:15 55:17,20 73:7 89:10
link 10:17,18
list 30:16 41:5 64:12,16
listen 6:13 38:6
lithium 85:9,17 86:7
little 25:17
llc 1:8 2:8
llp 3:3
loderup 3:5
logically 31:7
loizides 3:15
long 74:17 86:25
longer 32:15
look 70:13
looking 8:15 21:22 22:25 23:7 38:1 40:21 47:12 53:20 57:16 77:23 84:18
looks 72:22
los 91:3
losses 57:24
lot 29:2 40:23 46:23 48:5,21 67:5 79:13 84:1
lotus 79:23
lowest 73:7

m

m 4:17
maccarley 1:16 2:18 4:16 5:5 5:12,21 9:12 9:23 12:19 13:9 14:10 17:2 18:6,24 22:9,15,20 24:6,14 29:7 29:21,22 31:18 34:5 35:17 36:10,23 37:4 37:18 38:14 39:9 40:10,15 41:9 42:7,23 44:12 49:19 50:20 51:23 71:23 73:19 76:19 77:11,18 82:1,3 84:5,23 88:17 89:4 90:3,16
made 41:15 62:14 90:6

Graphite Charging Company Exhibit 2013
IPR2024-00388

mail 86:9 87:8
main 10:23
make 6:4 9:17 15:12 29:4,18 36:21,21 37:10 53:6 55:11 62:5 65:14 73:4 76:17
makes 75:15
making 18:21 43:13 46:3 50:11 51:8 67:17 73:14
managing 24:25 46:13,16 47:2,2,6 48:17 55:6
manner 91:22
manual 27:14 27:15 42:24 43:3,12,18 50:5,20,22 51:3,9,11
manually 68:3
map 58:16 59:3 68:12
mapping 67:1
maps 60:18
march 4:19 82:19
mark 82:1
marked 9:19 9:24 22:2,5 76:15 77:5 82:11,12
marketing 80:20
marking 76:14
mason 82:19 84:8
materials 8:21 9:11
matters 8:4
mean 15:3 16:2 16:8,24 17:6 28:23 30:13 46:23 52:22 74:15 76:24 87:5
meaning 12:17 12:21 13:11,25 14:13,21 15:23 17:20 18:25 19:18,23 20:4 20:8 23:10 24:15 26:5 29:13 30:3,23 31:4,23 32:2,7 32:19 33:2,13 34:9,16 35:23 36:12 37:6,19 38:14 39:10 42:8 43:2,8,11 43:19 44:22 45:17 46:23 47:15,17,22 48:9 49:6,23
meanings 42:17
means 15:4 27:19 32:7 50:15 72:5
meant 54:20
measured 31:4
mechanical 27:21 78:6
medical 7:25
medium 55:14
meet 47:6
member 74:20
mention 28:20 30:17 47:12 49:2 56:2,17 57:16
mentioned 23:20 28:17 38:25 39:1,20 45:11 49:17 53:25 54:9 55:2 56:7 59:9 64:23 66:11 67:8 70:6,22 75:23 79:12
mentions 55:16 63:4
met 70:17
method 24:24 25:1 55:6,7
microcomputer 54:25
microphone 25:15
middle 64:3
miles 74:25 78:9
mill 3:6
million 76:10
mind 58:25
mine 83:21
minute 35:6 71:5 87:24 88:9
minutes 88:12 88:13
mischaracteri... 24:20 48:12
missed 65:25
missing 67:14 67:16
module 86:4
mold 76:5
moment 21:19 38:3 88:5
mon 59:16
money 81:22 81:23
monitor 26:18 27:8 28:2 57:7 58:20,21 60:21 67:2
monitored 27:7 27:22 28:14 39:6 57:21 59:17 61:11,17 65:3
monitoring 25:7 26:17 27:24 58:7

59:15 62:2 63:8,15,19
monitors 57:9
morgan 3:3
morganlewis.... 3:8,9
morning 5:12
morse 87:3
morse.calpol... 87:14
move 70:8 76:14,18
moving 27:13 63:20 77:3
multiple 15:3,6 15:11 34:24 59:21 60:25 80:13
musk 80:11 86:25

n

nadiia 3:15
name 5:13,18 5:20 86:23 87:1,4,9,10,11 87:17,22 89:2 89:4
named 75:24 76:2 77:21 86:23 91:9
names 87:4
narrower 36:4
natural 17:24
navigate 23:8
nea 61:14
nec 61:15
necessarily 67:13
necessary 45:21 60:14 61:9
need 16:14 21:3 66:12 67:8 72:18 79:20 82:4
needed 12:16 15:22 16:13 17:19 19:17 40:13 72:5
needs 28:14
network 86:15 86:19
never 78:19
new 2:23 77:20 80:9 85:23
nj 91:25
no.description 4:13
nodding 6:19
noisy 38:22 46:2
normal 34:23
north 78:24
notary 89:23
noted 63:7 88:21 90:7
notes 8:25
notion 15:13
number 5:16 76:21,25 80:5
numbering 85:5,5

o

oath 7:22
object 7:2 36:14 77:14 82:23
objection 12:22 12:25 13:12 14:14 15:9 16:4,9 17:4,15 18:10 19:3 20:12 23:17 24:19 26:7 29:14 30:7 31:1,25 32:22 33:9,16 34:12 35:20 36:1 37:8,23 38:18 39:14 40:18 41:14 43:5,21 45:1 47:19 48:11 50:1,23 52:13 64:1,13 78:16 79:9 80:25 84:9 86:11
objections 14:1 80:25
objects 13:4
obligated 7:22 13:4
obvious 52:4 52:12,17 53:12 54:17,21 55:10 55:19,22 56:5 56:5,15,15,16 56:22 57:4,14 57:15 58:5 59:12,22 60:3 60:11 61:20,23 62:5,15 63:25 64:21 65:12,15 67:7,23 68:19 69:11 70:4 71:25 72:5,10 74:1
obviously 62:12 63:11 70:21 85:14
obviousness 60:14 61:13 63:11 65:9 67:9,12 72:18
occasions 79:14
occur 60:24
occurs 33:23
october 1:17 2:21 5:2 89:3 90:6 91:22
odds 74:24
offer 80:24 81:2,3,17,23 85:9,16
offered 19:7 85:8

Graphite Charging Company Exhibit 2013
IPR2024-00388

office 1:1 2:1
oh 10:18 21:11 24:8 25:13 47:20 71:13 73:2 74:15 78:21
okay 6:2,5,15 6:20 8:4 9:9,23 10:3,7,20,25 11:12,19,24 16:6 21:13,17 22:13 24:6 26:9 27:3 31:18 35:4,8 35:12,17 36:9 38:21 39:8 44:15 49:8,18 52:2 69:15 71:6,23 72:20 73:18 74:4 76:13 78:13 81:25 82:21 85:2 86:8 87:23 88:2,4,8 88:13,19
ones 60:25 64:17
online 85:23
open 10:10,11 10:12 21:24 22:20,24 77:20
opened 22:16
opening 22:23 83:3
operating 79:22
operation 18:25 19:1 20:5,6,10 37:20 38:16 59:5 75:13
operational 19:6 20:1,6,9 25:8 26:2,5,13 26:22 27:3,6 27:16,22,24,25 28:7,23 29:1,6 29:24 30:3,10 31:5 33:22 37:20 38:15,23 39:4,10,19,25 40:6 57:9,17 57:20 65:4 69:16
operator 75:13
opine 48:20
opined 52:4
opinion 36:10 37:4,18 39:9 41:18 52:12 53:13 54:18 56:3 60:11 65:1,11 72:1
opportunities 81:14
opportunity 73:12
opposed 17:8
orally 6:18
ordinary 12:17 12:18,21 13:11 13:25 14:13,21 15:23,24 17:20 17:21 18:7,25 19:18,19,23 20:4,8 23:10 24:15 26:4 29:13 30:2,23 31:3,23 32:1,7 32:19 33:2,13 34:9,16,22 35:23 37:19 42:8 43:2,8,11 44:22 45:17 46:23 47:17,22 48:2 49:23
oriented 76:1
original 80:12
originated 57:12
originates 66:19
outcome 91:19
outside 16:20 20:18 48:1 76:6
overall 70:21
overheat 62:9
override 27:14 27:16 28:19 42:24 43:3,18 50:5,21
overview 41:18
own 8:24 18:1 46:4 86:17
owner 1:9 2:9 3:12 5:14 51:14

p

pacific 2:20
page 3:6 4:2,13 6:4 11:5,17 22:25 32:25 58:12 72:15 73:8 84:22,22 85:3 89:10
pages 1:25 9:2 64:15 91:15
palo 2:19 3:7 5:1 80:15
papers 83:16
paragraph 11:12,17 15:18 18:4 19:13,24 51:25 52:3 53:25 54:22 55:11 56:18,23 59:3,14 60:4 61:1 67:22 73:7,20 74:6 85:7
paragraphs 70:9
parameter 27:17,22,25 28:7,11,12 29:1,6 33:22

65:4
parameters 19:1,6 20:2,5,7 20:9 25:8 26:2 26:6,13,17,23 27:4,6 28:23 29:24 30:4,10 31:6 37:20 38:15,24 39:5 39:11,20,25 40:6 50:12 51:7 57:10,17 57:20 59:17,23
part 56:18 58:8
partes 5:15,25
participant 49:20,24 50:15 51:5,6
participate 76:4
particular 39:16
particularly 75:7 83:23
parties 13:19 91:21
partners 4:20 77:21
passage 68:3
patent 1:1,3,9 1:13 2:1,3,9,13 3:12 4:14 5:14 5:16 8:5,6,24 17:25 18:17 20:15,16,19,21 22:15,19,21 23:6,16,24 24:18 26:1 29:12,23 31:20 32:5 33:7 34:6 35:18 36:6,13 36:24 37:7,22 38:17 39:13 40:17 41:11 42:22,24 43:11 43:20 44:4,10 44:20 46:8,16 48:10 49:21 52:6 54:1 56:20 57:1,23 58:25 62:13 63:18,24 64:23
path 55:23
pause 39:15
pdf 85:4,4
pdt 5:3
penalty 90:1,4
people 80:9 87:5
percent 84:15
perform 57:1 75:12
period 70:1
perjury 90:1,4
person 12:18 13:15 15:23 17:21 19:18 75:2 91:18
personal 18:1
perspectives 19:8
peter 3:5
peter.loderup 3:9
petitioner 1:6 2:6 3:2
phases 46:13 46:16 47:1,2,7 48:18
phrase 18:13
phrased 32:6 43:7
place 76:8
places 29:2 34:19 59:21
plain 12:17,21 13:11,24 14:13 14:20 15:22 17:20 18:6,24 19:17,22 20:4 20:8 23:9 24:14 26:4 29:13 30:2,23 31:3,23 32:1,7 32:19 33:1,13 34:9,16,21 35:23 37:19 42:8 43:2,8,11 44:22 45:16 46:22 47:17,22 48:2 49:23 51:2
plainest 32:17
please 5:18 11:25 16:7 17:10 20:12 22:22 38:3,8 52:9 54:15 63:21
point 15:15 21:21 25:5 58:4 72:10 85:24
pointed 37:1
pointing 68:14
points 67:8
poly 4:20 73:22 74:8,15 75:23 75:24 77:21,25 81:16 86:9,14 87:18
popular 74:8
ports 78:25
posa 42:21 52:17 54:4,11 55:10 56:16 57:15 61:14,22
posa's 53:24
possibility 33:18 43:9
possible 47:12 48:2,22 58:23 64:11
possibly 50:7
potential 25:6
potentially 28:14,25

power 35:3 36:3 57:23 60:6,24 62:10 62:10,11 63:2 66:4,12,20
practically 75:25
practice 70:2
pre 63:8
predefined 29:25 30:4,11 30:24 39:11 65:5 69:18
predetermined 69:10
prefer 21:14
preference 28:9 30:20 33:8,14 33:19 34:1 50:17 62:23 68:16,22,24 70:24
preferences 50:7 66:3
preferred 33:25
preparation 17:13
prepared 12:6 14:3 41:16 64:14
preparing 14:10 17:3
presence 56:3
present 3:20
prestigious 81:15
presume 20:20
presumed 27:20
pretty 47:20 49:11 66:7
previous 25:20 50:3
previously 23:9
primary 79:19
printed 8:23 18:14 23:7
prior 26:10 56:7 91:9
privilege 7:5
probably 74:3
problem 11:3
process 24:4,25 25:5,9 26:2,6 26:16 37:15 43:16 49:20,24 51:13,16 54:2 54:5,20 55:6 56:4 61:18 62:17 69:7
produce 61:8
professional 2:24
professor 81:7
program 10:1
progress 46:4
project 75:7 83:5 84:7 85:10
projects 75:5 83:6,7
property 48:23
proud 75:8 76:10 83:23
provide 9:11 12:6 58:8
provided 24:15 35:3
provides 57:19 58:10 70:14
providing 43:14
ptab 12:6
public 89:23
publically 75:10
published 63:8 83:18
purchased 86:18
purdue 86:21
purpose 19:15 70:17
purposes 12:11 15:20 18:8 19:2,23 48:23 79:1
pursue 85:9
pushing 66:16
put 32:16 33:24 38:21 40:2 48:1 82:5

q

qualified 91:7
quantity 57:25 59:6
question 6:22 7:3,4,12 12:4,9 13:5,6,8 14:5,8 14:16 17:12 18:2 19:10 20:4,17 25:20 26:10,25 28:23 29:10 31:15 32:6 33:19 34:15,21 36:20 37:12,24 38:6 38:10 39:23 41:4,22 42:14 43:7 44:13,16 45:24 46:6 50:3,18 51:17 51:21 52:1,18 52:22 53:16,17 54:8,14,14 63:22 64:4 71:9,12 72:17 74:4 81:23
questions 6:8,8 6:18 29:4 88:1 88:10,18,20
quite 38:24 74:17
quote 23:21 61:19
quoted 62:1

quotes 27:5
quoting 60:18

r

r 5:20,21,21
race 76:11
racing 4:20 74:19 75:22,23 75:25 76:2 77:21 78:1
range 39:19,24
rapid 4:17 82:17
rare 47:21
rates 50:13
rather 52:23 63:4
read 12:14 15:3 15:19 19:14 24:24 37:9 38:9,12 42:3 42:21 57:17 59:4 62:1 63:6 65:2 69:13,16 70:8 90:4
reading 38:19 43:22 54:1
realize 54:4
really 41:22
realm 48:1 62:8
reason 6:23 7:25 28:14 60:23 68:2 84:14 89:5,10
reasonably 41:19
reasons 56:6
recall 51:1 79:7
receive 80:23 85:17 86:6
received 9:19 22:5 77:5 78:15,19,23 80:16 81:3 82:12 85:15
receiving 23:25 24:8 25:2 57:10 59:18 60:16 79:7
recently 73:22 80:11
recite 24:11
recognize 82:21
recollection 53:3
reconstruction 16:20
record 5:19 6:19 38:12 89:6 91:16
recorded 6:9 91:13
recruiter 81:10
redefined 16:18
redefinition 15:4
redirect 88:6
redundant 56:12
refer 8:5,9 12:8 16:16 27:8 28:5 45:19,19 68:7
referred 37:13 54:2 62:12,17 65:16 83:9
referring 8:6 8:10 18:18 20:1,3 24:9 26:23 59:8 61:1 63:11 68:5 69:12 73:6
refers 49:12 56:12 60:1
refresh 22:9 77:9 82:4
regarding 7:18
regards 5:16
registered 2:24
related 8:21 83:8 91:20
relevance 77:16
relevant 73:21 82:25
relied 54:10
remaining 59:6
remember 23:12
remotely 2:19 3:21
rendered 53:22
renders 52:4
renee 1:23 2:21 76:13 91:5,24
repeat 19:9 23:21 38:8
repeatedly 57:18 69:5
repeating 48:16 50:17
rephrase 72:14
report 83:5 84:8,23 85:7
reported 1:23
reporter 2:22 2:23,25 5:7 6:9 6:10,19 21:25 22:4 25:12,16 38:11 72:21 76:16 91:6
represent 5:14
request 9:17 25:4 45:5 55:25 56:3 60:12,17 70:18 81:10
requesting 27:10
require 54:3
required 61:6,6 61:12 63:15 65:24
requires 65:10
reserve 88:5
respect 63:7 68:14

Graphite Charging Company Exhibit 2013
IPR2024-00388

respective 91:21
response 24:2,8 69:15
responsible 27:10
responsive 23:25 25:2 57:10 60:15 69:13
resume 35:7
review 5:15,25 37:25 73:12
right 7:14 8:16 10:10,13,15,17 12:19 53:20 54:13 58:17 71:17 77:2 88:16
risk 50:17
road 3:6
roadsters 79:24
room 10:5
rpr 1:23 91:24
rules 6:4
running 8:12 8:17

s

s 74:18
sa 61:14
sae 61:3 63:14 74:19 75:22
safety 66:21
save 45:5
saw 71:19
saying 14:6,7 25:11 34:21 61:13,22 67:13 67:15 68:19 69:11
says 46:11 62:16 66:24 68:11,22
scan 45:8
scanning 40:22
school 76:1
scope 29:6 77:16 78:17 79:10 82:25 86:12
screen 21:23 22:10
scrolling 85:1
search 45:6 46:4
second 19:9 29:22 31:19 33:6 34:5 76:8 87:11
seconds 75:13
section 12:14 52:24,24 67:4 73:7
see 11:5,5,16 15:25 21:23 22:3,11 23:14 23:24 24:2,8 26:1 27:3 29:23 31:18 33:7 34:6 35:17 42:24 44:1,4,8,14,18 49:19,22 50:8 51:15 52:7 55:13 60:12 67:5 73:25 74:11 75:1 77:1,12,19,20 82:10,10,16 85:11 88:2
seeing 82:9
seems 12:4
seen 18:13
selects 50:16
semantics 16:11
sending 69:14
senior 83:4,5 84:7
sense 38:1
sensitivity 25:15
sent 60:19
sentence 11:19 69:15
separate 10:1 13:13,20 16:15
sequence 76:21
series 6:8 45:12
served 86:19
services 27:23 28:18 30:20 34:7,10 65:22 69:23,24 70:5 70:7
set 10:3,8,25 18:25 20:5,9 25:8 26:1,5 29:9,13,23,24 30:3,4,10,11,24 34:1 37:19 38:15,23 39:4 39:10,11 50:11 57:20 68:15,17 69:2,16,17
settable 28:11
setting 28:12 50:7 51:7
seven 63:14 76:2,2
several 79:14 80:3 83:16
shaking 6:19
shapiro 3:14 4:3 5:11,13 9:10,22 10:7 10:13,25 11:4 11:8 13:2,22 14:9,17 15:17 16:5 17:1,11 18:5,23 19:11 20:24 21:7 22:1,8 23:23 25:23 27:1 29:20 30:22 31:17 32:18 33:5,12 34:4 35:4,12,16,22 36:8,17 37:17

38:4,9,13 39:7 40:9 41:8 42:6 43:17 44:3 45:13 48:6 49:4 50:19 51:20,22 52:19 54:12 64:10 71:2,10 73:11 73:17 76:13,17 76:22 77:8,17 79:6 80:21 81:24 82:7,11 82:15 84:4,21 87:7,23 88:4 88:14,19
share 10:4,8,16 10:21 11:1 21:20,23 22:10 81:25 82:6,8
shared 10:14 22:13 41:24 57:6 80:1 84:6
sharing 9:23 10:23 80:17
sheet 89:1
shell 74:21
shoestring 76:8 83:25
short 35:15 66:13 71:7 88:3,15
shorthand 2:22 5:7 91:6
show 80:18
shown 63:24 82:24
shut 51:11 68:3
shutdown 70:18
side 60:5 62:15 63:7,19 70:16
sidetracked 25:17 26:10
signal 55:16,24 56:3 57:10,12 60:17,19
signaling 25:4 56:4
signature 91:23
significance 29:19
similar 55:23 57:1
simpler 53:6
simply 11:6 15:4 23:8 31:11 68:19
single 11:6
sir 6:1
six 63:13
size 80:5
skill 12:18 15:24 17:21 19:19
slight 33:18
slightly 42:3 55:18 86:1
somewhat 28:10 56:11
sophisticated 83:11
sorry 20:6 25:13 29:9 40:10 41:21 44:12 75:20 78:2
sort 58:12 62:18 76:5
sotto 37:15 43:23 46:1 49:9 53:22 65:21
sound 6:25
sounds 88:14
spare 61:1
speak 6:17 27:4 43:25 63:14
speaking 6:13
speaks 49:11
specialize 79:5
specific 15:15 26:13 27:5 29:4 40:14 41:1 45:14 56:1 58:25 59:10 61:12 62:4,21 65:20 68:23 69:6,24 70:3,10 72:11
specifically 26:23 28:20 52:15 54:9 56:17 58:22 60:9 62:1,25 64:22 75:24
specifics 20:21
speed 86:2
spelled 5:20
ss 91:2
standard 10:23 11:15,22 12:1 12:11 56:7 61:4,8,17,19 63:12 70:2 78:24
standards 61:15,16 63:8 63:14
start 24:22 25:4 52:25 55:16,25 56:4 57:11,12 60:21
started 53:1 71:13
starting 46:15
state 5:18 11:13 15:19 27:15,25 28:8 28:25 32:11 33:21,24 57:24 65:1 72:15 73:8,21 74:7 91:1,7
stated 12:13 18:4 19:13,24 20:14 30:9 34:18 45:18 50:2,16 57:22 58:5,6 59:10

59:21,24 60:9 60:25 62:1,9
statement 29:18 59:3 68:11,20
statements 70:10
states 1:1 2:1 60:15 61:17 85:8
stay 18:3
stein 3:4 9:14 10:6,7,9 12:22 13:1,12 14:1 14:14 15:9 16:4,9 17:4,15 18:10 19:3 20:11 21:4 23:17 24:19 26:7 29:14 30:7 31:1,25 32:22 33:9,16 34:12 35:9,20 36:1,14 37:8 37:23 38:18 39:14 40:18 41:14 43:5,21 45:1 47:19 48:11 50:1,23 51:17 52:13 53:14 64:1,13 72:21 73:3 76:20 77:13 78:16 79:9 80:25 82:5,22 84:9 86:11 88:2,8,16
stenographic... 91:14
step 34:20 59:15
stop 6:12 71:2
stored 58:1
straight 72:8
strictly 15:3
strived 42:15
stronger 72:6
stuck 20:16
student 74:8,13 75:4 78:13 79:15 80:22 83:25
students 80:18 81:8,10,12 83:13,22 85:13 85:14
subdomain 87:21
subject 53:24
submitted 11:10
subscribed 89:20
substance 7:18
subtle 38:2
subtleties 43:10
succinct 26:24 39:22
succinctly 50:15
sufficiently 13:18 85:20
suggest 10:22 66:13
suggestion 53:19
summarizing 46:25
superior 75:15
supermileage 74:22
supply 62:11 62:11 63:2,16 66:20
support 78:15 79:8 80:24 81:2,4,17
supported 48:25 84:2
suppose 40:21
sure 6:4 29:5 37:10 45:25 55:10 65:8 67:17 73:5 80:4 81:7 84:24
surrounding 29:18
sustainable 73:23
swear 84:11
switch 27:16 51:11 69:2
sworn 5:6 89:20 91:10
syntactic 25:6
system 4:18 43:14 47:5 61:10 75:11,12 82:17

t

t 5:21
take 7:8,9,10 7:13 30:12 35:6 38:5 41:6 45:3,22 71:3 87:24 88:7,8
taken 35:15 71:7 79:14 85:18 88:3,15 90:5
talk 6:11 29:1 55:5 59:22 60:13 62:6,25 66:2 69:22 88:9
talking 33:1 55:22 58:22 61:20 62:21 64:21 67:11 69:25 70:9 84:25 85:3
targets 34:25
taught 73:22 74:2
teach 79:16
teacher 81:7
teaches 67:24
team 74:19,22 75:22 77:24

teams 76:3,9
technical 41:22
technically 72:4
technician 10:15,19
technologies 78:8
technology 75:16
tell 22:17 26:4 30:2 64:24 84:11,13 91:11
telling 60:21
ten 71:5 78:22 88:11,12
tenured 74:16
term 15:16 16:20 18:7,25 20:2,3,5,9 23:10,14 24:17 26:1,5 29:9,9 29:12,13,23 30:3 31:20 32:20 33:7,14 34:7 35:19,24 36:11 37:5,19 38:15,23 39:10 39:20 42:24 43:3,18 44:5,8 44:18,23 45:15 45:17 47:15,18 48:7 49:5,16 49:19,24 50:20 50:22 51:2 55:14
terminal 69:9
terminate 24:3 27:11 37:14 51:13
terminated 69:8
terminating 26:15
termination 28:15 43:16 62:17 69:1 70:15
terms 12:17 13:16 14:22 15:6,23 17:2,6 17:13,21 18:16 19:18 40:16,20 41:3,9,11,23 42:8 62:21
tesla 1:5 2:5 78:15,23 79:8 79:21,24 80:10 80:24 81:8,11 85:8 86:7,17 87:10 89:2
tesla.calpoly.... 87:14
tesla.elee.cal... 86:10
tested 50:8
testified 5:8
testify 8:1 91:11
testifying 10:5
testimony 7:23 88:18 90:8 91:16
text 18:17 20:15 28:4 32:4 43:10 52:23
texts 26:12
thank 5:23 23:4 25:24 29:7 35:13,14 36:9 39:8 44:17 49:18 74:4 86:8 88:16
thanks 88:14
theoretically 28:24
thermodyna... 74:24
thing 31:11 50:16 52:22 55:19 58:20 61:21 68:21 82:6
things 16:22 27:6,9 39:5,24 46:24 57:2 58:23 62:22 67:7 79:12 83:18 86:14
think 9:14,15 18:13 21:5 28:19 36:5 39:2 46:5,5 53:9,14 64:7 64:17 71:3,11 72:4,9,22 73:3 74:2 75:6 78:18 79:13 85:18
third 11:19 23:19 37:13
thought 17:7 87:1
thousand 74:25 78:9 80:3
three 30:16 40:3 49:16 57:22 64:21 69:21
threshold 31:7 31:10 33:20,23 40:5,7 68:14 69:10
thresholds 50:8 68:25
thursday 1:17 2:21 5:2
time 2:20 7:10 7:19 9:3 18:13 23:20 38:5 41:7 45:6,22 58:2 60:21 70:1 74:2,16 74:17 79:25 80:17 85:23 88:5,17,21
times 80:13

title 9:2
today 8:2 88:18
told 57:11
took 74:23 76:7 81:8 86:20
trademark 1:1 2:1
transaction 18:7 23:11,15 24:1,3,12,16 25:3,21 26:15 27:11 36:11 37:5 44:5,9,19 44:23 46:9,12 46:14,17 47:3 47:8,16 48:8 48:19 49:6,13 56:13,19,25 60:12,16,20 67:3 81:20
transcript 73:13,15 90:5
transcription 72:23 73:4 89:8
transfer 18:19 54:5,23
transmits 55:14
transmitting 55:16
trends 80:10
trial 1:3 2:3
trigger 31:7
true 63:19 84:7 90:9 91:16
truth 91:11,11 91:12
truthful 7:23
truthfully 8:2
try 6:12,23 7:8 77:3
trying 15:12 40:13 41:1 53:21 67:18 87:6
turn 23:5 51:24 84:22
turning 59:23
two 9:1 12:3 19:7 28:1 41:25 58:22 60:10 72:2 74:7 78:23
type 31:7,10 36:19 41:4 52:22 63:5 66:8 68:17 75:2,4 79:7 81:16
typo 74:1

u

u 5:21
u.s. 1:13 2:13 4:14 5:16 8:6 22:14,21
ultralight 78:10
under 7:21 90:1,4
understand 6:22 7:6,7,15 7:16,21 8:6,10 9:7 11:18,20 18:1 19:25 36:23 52:18 66:24 67:10
understanding 57:8
understood 6:16 31:15
unique 18:12
united 1:1 2:1
units 28:1
university 87:19
use 32:4 45:14 49:16 57:5 65:18 72:18 76:20,22 79:2 80:6 87:8,21
used 13:16 15:5 16:22 18:17 36:6 38:24 39:17,20 42:1 42:17 51:10,11 87:17
user 28:11
uses 54:25 55:14
using 11:14,21 76:24 85:21 87:1
usually 43:12 51:11

v

v 1:7 2:7 89:2
value 31:4
variations 33:2 33:18
various 26:11 67:12
vehicle 18:20 25:1 44:5,9,19 44:23 46:11,14 46:17 47:1,3,7 47:16 48:7,18 49:5,12 51:15 55:7 59:18 60:5,6 63:7,17 66:5,14 68:10 70:16 74:9 75:4,8 78:8,10 79:16
vehicles 79:3,4 80:19 83:17
veritext 11:6 21:22
version 69:23
view 80:13
violated 28:13 33:24
violation 33:20
virtually 61:25
visit 79:21
visualizing 50:24

voce 37:15 43:23 46:1 49:9 53:23 65:22
voltage 57:25 58:7 59:6 62:11 63:2,16 66:20 68:25 69:2,9
volunteer 83:22,25

w

waiting 22:23 51:18,20
want 7:9 20:20 38:6 46:20 58:23 64:6 67:6 72:8 73:4 76:20 77:14 82:23 88:10
waste 9:2
watching 60:22
way 6:24 9:13 17:7,8 32:9,10 34:15 46:6,15 50:2 59:10 63:18 76:14 91:19
ways 15:3,7,12 16:22 48:5 72:2
we've 35:4 71:3 78:19 80:13
webpage 77:25
whatsoever 91:22
wide 39:24 40:3
wildly 78:22
willing 42:16 79:25
wilmington 3:16
window 10:1 10:24
wiring 66:14
wish 84:11
witness 2:19 3:10 5:6 10:18 10:20 11:3,5 12:24 13:13 14:3,15 15:10 16:10 17:6,17 18:12 19:5 20:14 21:4 23:19 24:21 25:13,17 26:9 29:16 30:8 31:3 32:1,23 33:11,17 34:13 35:10,11,14,21 36:2,15 37:9 37:24 38:10,19 39:15 40:19 41:15 43:7,22 45:2 47:20 48:13 50:2,24 52:15 53:18 64:5,14 71:8 73:2,6,11 78:18 79:11 81:2 82:9 83:3 84:10 86:13 89:4 91:9,17
wonderful 83:12
word 24:10 36:5 45:6 46:3 47:13 54:25 57:5 65:18,20
wording 48:21 55:17 59:20 67:21
words 26:19 36:4 40:23 44:7,21 47:21 58:6 62:19 65:8 67:13
work 86:22
working 56:8 58:3 61:5,7
workstation 86:17 87:2,17 87:22
workstations 86:24
world 75:17 76:7
worthy 34:2
wow 75:22
written 13:14 21:2 23:1
wrong 51:15

y

yeah 6:21 10:19 11:4 26:9 35:9 48:13,13 73:6 83:4
years 56:7 74:16,23 78:22 81:6,16
yellow 9:5

z

zoom 8:19 9:25 10:23

Graphite Charging Company Exhibit 2013
IPR2024-00388

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.

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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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