United States District Court 1 Central District of California 2 3 Honorable Kim McLane Wardlaw, Judge Presiding 4 5 Unocal Corporation and Union Oil 6 : Company of California, : 7 Plaintiffs, : 8 : : NO. CV 95-2379-KMW vs. 9 : Atlantic Richfield Company, : Chevron U.S.A., Inc., 10 Exxon Corporation, Mobil Oil Corporation, Shell Oil Products 11 : Company and Texaco Refining 12 And Marketing, Inc., Defendants. 13 14 15 16 17 Reporter's Transcript of Proceedings 18 Jury Trial - Day 2 19 Los Angeles, California Wednesday, July 16, 1997 20 MORNING SESSION 21 22 **CERTIFIED COP** Mark Schweitzer, CSR 23 Official Court Reporter 562 United States Courthouse Roybal Federal Building 24 255 East Temple Street 25 Los Angeles, California 90012 (213) 626-7570

1 government hadn't made them do it before, and nobody wanted 2 to drive the price of gas up until everybody was doing it at 3 the same time.

So that's what our clients and Unocal started doing in 1996. This could not be considered traditional motor gasoline because the kind of motor gasoline that was being made in commercial quantities back in the early 1990's was different. Had the same properties but at different levels, and we'll be talking about that in a minute.

Now, what this case is about is that Unocal has come along and said some of the gas some of the time that you're making, according to the state regulations, some of this gas that you make in 1996, some of the properties of some of the gas that you make some of the time, not the gas, some of the properties, we invented.

The oil companies who were making this gas 16 according to state regulations say that's ridiculous. You 17 didn't invent properties of gasoline. We've known about 18 those properties, and you've known. We've all known for as 19 long as gasoline has been made. You didn't invent the 20 directions to move those properties, less of this, more of 21 that, for a lower polluting gasoline. We've known that for 22 at least 25 years. And I'm going to explain that more in a 23 second. 24

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You didn't invent anything. You didn't invent

something to put into the gasoline to make it better, an
 additive or detergent. You didn't invent a new way to run a
 refinery, to blend streams differently. You didn't invent
 anything.

And worse, they say, the claims that they are going to ask you to decide in this case, the claims that were copied were the Air Resources Board regulations way back in 1991. The Air Resources Board came out and said these are the properties we want in your gasoline from now on. And Unocal in the claims that you're going to have to deal with, took their numbers from the Air Resources Board.

Now, what will the evidence show about why they think that they could get away with that? Well, the evidence is going to show that they think it's a gamble. Their Chairman, Roger Beach, will be a witness. And Mr. Beach has been quoted as saying, "If we win, it'll be fantastic. If we lose, we haven't lost much."

We're not talking here about David and Goliath.
We're talking about big oil companies, folks. We're talking
about Sampson and Goliath. So Mr. Beach has said, "If we
win, it'll be fantastic. If we lose, we haven't lost much."
The people who put their names on the patent,
Mr. Jessup and Dr. Croudace you heard about yesterday. They
have given up any right that they have to the profits or

25 royalties or money from the patent. They have assigned it

over to the Union Oil Company, the plaintiff in the case. 1 But it was clear that, when they were working on 2 this, they thought they had a chance to be a big hero inside 3 the corporation, and they wrote a memo which you will see 4 which said, "if we can pull this off", in essence, "if we can 5 pull this off, we can collect up to \$114 million a year from 6 the other oil companies by way of royalties." 7 So that's what they think, according to the 8 The other question that you must be having by now, 9 evidence. having listened to Mr. Lueck yesterday and then listening to 10 me say they didn't invent anything and they copied it from 11

12 CARB, is why did this patent issue in the first place? How 13 could it have come out of this government office, the patent 14 office?

And the evidence about that is going to show that 15 the patent examiner is a person, is a government official. 16 This patent process is done in secret between the government 17 official and the person applying for the patent, or the 18 company applying for the patent. And that patent examiner 19 works back in Arlington, Virginia, right outside of -- or 20 Alexandria, Virginia, right across the river from Washington, 21 D.C., and she doesn't have independent experts, and she 22 doesn't have the right, because it's confidential, to go out 23 and ask the other oil companies "what do you know?" She 24 doesn't have the right to go out and talk to the regulators 25

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1 going to show you this briefly.

2	I'm going to be asking you to remember some of
3	these numbers. The Air Resources Board summer specifications
4	set limits for these various properties that you've been
5	hearing about, RVP, T50, T90, olefins, aromatics, and so on.
6	They controlled sulfur, and they controlled benzene, which is
7	a toxic.
8	They set them three ways, something called a flat
9	limit, something called an average limit, and something
10	called a cap. And I want to call your attention and ask you
11	to remember. You see where it says "olefins", they put in
12	the number 6, 4, and 10.
13	For T50, they put in the numbers 210 and 200.
14	These are the numbers that Unocal copied from CARB.
15	And then you see the RVP over there. They put in
16	the number 7 as a limit on RVP. Okay, we can take that off.
17	So CARB passed these regulations in late 1991.
18	They gave people five years to make the gasoline, and as I
19	said, billions of dollars went into changing the refineries.
20	The environmental quality concerns, they had to get permits.
21	They have to go to public hearings.
22	It took a long time because each community is
23	always interested in what happens when a refinery is going to
24	change something. And it took five years, and then finally
25	in 1996, when the summer season came, everybody, including

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1	in detail, I guess you wouldn't know what it says about T90,
2	either; is that fair?
3	A. That's correct.
4	Q. So you don't know what the inventors set forth in the
5	patent with regard to T90 limitations, do you?
6	A. Not the specifics.
7	Q. And would it be fair to state that as of December 13th,
8	1990 CARB had not published anything with regard to T90
9	points or ranges?
10	A. Not to my recollection.
11	Q. Can you now direct your attention to exhibit 1376.
12	A. Yes.
13	Q. Now, this is a CBS News which is dated September of
14	1991, correct?
15	A. Correct.
16	Q. And it relates to an August 14th, 1991 CARB public
17	workshop put on by the staff from the stationary source
18	division of CARB; isn't that right?
19	A. Correct.
20	Q. Were you there?
21	A. I don't recall, but looking at this would indicate that
22	I may not have been present at that workshop.
23	Q. Did you authorize the workshop?
24	A. I'm sure I did.
25	Q. Now, the individuals from the staff that were present

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1	included Dean Simeroth, S-I-M-E-R-O-T-H, Susan Huscroft, Bob
2	Fletcher, F-L-E-T-C-H-E-R, Dan Donohue, D-o-n-o-h-u-e, Tom
3	Jennings, J-E-N-N-I-N-G-S, John Cortis, C-O-R-T-I-S, Rich
4	Vincent, V-I-N-C-E-N-T and Jim Aguila, A-G-U-I-L-A, correct?
5	A. Correct.
6	Q. And that was really the core staff with regard to this
7	CARB phase two reformulated gasoline, wasn't it, sir?
8	A. Correct.
9	Q. Those were the folks that had their hands on and were
10	doing some work; isn't that right?
11	A. Yes.
12	Q. Now, if you turn, sir, to the second page, do you see
13	the section that says "background"?
14	A. Yes.
15	Q. Now, this is a phase two reformulated gasoline
16	specifications June, 1991 proposal; isn't that right?
17	A. Yes.
18	Q. This is the first time that there was any publication of
19	any proposed specifications for many of these fuel
20	properties, isn't it?
21	A. I don't recall the specification date when we put out a
22	formal proposal.
23	Q. You can't recall any one before this, can you?
24	A. I know we had many, many workshops and meetings. I just
25	can't recall which is the workshop we went with a full

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1	proposal.
2	Clearly there was a full proposal at this
3	workshop.
4	Q. Can you recall anyone before this one?
5	A. No.
6	Q. Thank you.
7	As of June 11th, 1991 can you tell me where there
8	is any, any reference to T50?
9	A. There is no specific reference.
10	Q. None at all, is there?
11	A. The only thing I would say is we indicate we were
12	looking at driveability index.
13	Q. Ah, driveability.
14	We just talked about that before, didn't we?
15	A. Yes.
16	Q. In fact, you had talked back in late summer, maybe early
17	fall, I don't know what it was, of 1990 with Toyota about a
18	driveability problem they were having with their Lexus,
19	didn't you?
20	A. I don't think well, I don't recall having that
21	discussion with Toyota regarding their Lexus.
22	Q. Do you recall having a discussion with them about
23	driveability in reducing T50 because of driveability
24	problems?
25	A. I recall discussions with Toyota regarding T50.

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1	Q. Do you recall it was related to driveabilities?	
2	In fact, they may have reported to you that it w	vas
3	critical for driveability?	
4	A. I believe that's true.	
5	Q. Now, as of June 11th there is no specific reference,	you
6	would agree with me on that, regarding T50, correct?	
7	A. Correct.	
8	Q. Indeed, there is no proposed specification for T90,	.s
9	there?	
10	A. No.	
11	Q. There is no proposed specification for driveability	
12	index, is there?	
13	A. No.	
14	Q. Now, if you turn to page 3, and keep in mind this is	a
15	September CBS publication, correct, sir?	
16	A. Correct.	
17	Q. Now, we see that what is also reported in here is the	:
18	proposed fuel specifications which have been revised for	
19	phase two reformulated gasoline proposal, right?	
20	A. Correct.	
21	Q. And this is as of August, 1991, correct?	
22	A. Correct.	
23	Q. And now there is a T50, isn't there?	
24	A. Yes.	
25	Q. It's separate and apart from driveability, isn't it?	

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Α. Yes. 1 2 Ο. There is also a driveability index number put in, isn't it? 3 4 Α. Yes. 5 By the way, Mr. Venturini, let me ask you something Q. 6 about driveability. 7 You said that if you reduced T50, that would reduce 8 driveability. 9 Is that what you said? 10 That would reduce the index. Α. That would reduce the index. 11 ο. 12 Α. Right. 13 But that would depend on what you did with T10, T90, ο. 14 D-80 (sic), et cetera, wouldn't it? 15 Α. If those other two were held constant. 16 Q. Oh, okay. 17 So if everything was held constant and you only 18 reduced one part of the driveability index, then you would reduce it; isn't that right? 19 20 Α. Correct. 21 But you could raise T50 and lower the other two 0. components of the driveability index and lower driveability, 22 couldn't you? 23 24 Α. Technically. 25 Ο. Yes, in fact, you could take any number of permutations

1	of combination of those three factors and raise and lower it;
2	isn't that right?
3	A. Yes.
4	Q. Now, as of August of 1991 this is the very first time
5	that CARB ever published anything regarding D-50, isn't it?
6	A. That seemed to be what is indicated here.
7	Q. And some nine months before Drs. Jessup and Croudace had
8	submitted to the patent office their patent application with
9	ranges for T50, hadn't they?
10	A. I wasn't aware when they submitted that.
11	Q. Well, if you assumed the date to be December 13th, 1990,
12	that would be roughly seven to eight months before; isn't
13	that right, sir?
14	A. That's correct.
15	Q. Okay. Now, there was no T50 and no driveability in June
16	but there was one in August; isn't that right?
17	A. Yes.
18	Q. And between June of 1991 and August of 1991 you and your
19	staff met with UNOCAL, didn't you, sir?
20	A. I don't recall the specific timing, but it was probably
21	in that time frame.
22	Q. Can you go to exhibit 402 in front of you.
23	A. Yes.
24	Q. Do you see that, that is a letter to Mr. Venturini,
25	chief stationary sources division, California Air Resources

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And I would ask the Court to look at the case they cited because when you look at that cite in its entirety, that sentence, it shows that it was on the secondary consideration. I don't have the case in front of me right now. I would have to go back to the desk here.

6 But with regard to secondary considerations, that 7 goes to the issue of nonobviousness. That is the purpose for 8 which it's entered, not the purpose, not to show obviousness.

THE COURT: Okay. With respect, I'm going to keep 9 maintaining the ruling with respect to foundation. Because I 10 11 don't think this individual -- you can attempt to do it, but I don't think you have demonstrated at this point that he has 12 sufficient first-hand knowledge in the area to be able to 13 testify so broadly that the industry knew in the 70's that 14 15 the RVP -- lowering the RVP reduced emissions and that the industry didn't do it or the regs were imposed at that time 16 17 because of the cost.

18 His knowledge that he has demonstrated today does19 not establish that foundation.

With respect to the relevance of the regulations,
there is this -- I will go look at this case. But let me
just make sure I understand the arguments on both sides.
One of the secondary considerations for
nonobviousness is, of course, commercial success. So let's
assume that the defendants are producing a gasoline that

1 would be infringing the patent.

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2	Their argument is that that doesn't mean that the
3	patent is successful or fills a gap, a long-needed gap in the
4	technology. It merely means the defendants have had to
5	comply with these regulations. So, therefore, one would need
6	to show that UNOCAL or the patent had some impact on the
7	regulations being developed or promoted in order to
8	demonstrate that their compliance with the regulations went
9	to the commercial success of the patent.
10	So that's their argument, right?
11	MR. CIRESI: I know it is, your Honor.
12	THE COURT: You are saying that doesn't follow
13	because
14	MR. CIRESI: Here's why.
15	THE COURT: All right.
16	MR. CIRESI: The invention, and one must assume
17	there is an invention in this discussion. The invention
18	occurred on March 30th. The patent was filed December 13th,
19	all of 1990.
20	The regulations came later. It's clear from their
21	own witness that they had nothing out there before we set
22	forth the express support and specifications for our
23	invention. It's absolutely clear.
24	Now, we have one way to make gas which reduces
25	emissions. They don't have to infringe our patent. In fact,

1 they say they don't. The mere fact that they utilize the '393 patent to 2 3 make gasoline shows its commercial success. And that is a secondary consideration after the conception of the 4 5 invention. Because they, themselves, maintain they don't have to. 6 7 They also say that CARB didn't use the invention and CARB didn't use the entire invention. It didn't. 8 Because the invention is more than T50. 9 10 But when they want to make gasoline that will 11 reduce emissions and they want to go into the predictive model and they don't have to comply with the limitations, one 12 13 of the ways to do it is to use our invention. That's what 14 they are doing. That shows commercial success. 15 It does not show what they want to say, that is that they are only doing it because they have to comply with 16 17 CARB. 18 If they don't want to make it, don't make it. We wouldn't be here. 19 20 They could go ahead and make CARB the way they 21 want -- comply with CARB and all the other ways they want to 22 comply with it without infringing our patent. That is, I 23 think, the way the issue should be crystallized. 24 THE COURT: Your point is whether or not UNOCAL contributed to the regs or contributed to the success of the 25

regs is totally irrelevant because that's not really the 1 2 issue. MR. CIRESI: It is. 3 THE COURT: Mr. Keker, your response to that 4 quickly? 5 6 MR. KEKER: He said a mouthful. 7 My first response is that when somebody in this case tells you something is clear, you should put your hand 8 in your pocket. That is how he started. 9 First of all, he says clearly the invention 10 11 happened on March 30th. THE COURT: We all know that is a date in 12 13 controversy. 14 MR. KEKER: That is a date in controversy. 15 In December of 1990 what they claim they did --16 what they did was file a patent application. Forget about 17 combination for a second. It's just as though they said we 18 have all of these specifications and our first claim is an 19 RVP of 8 or less and then they sat back and they waited for 20 the CARB regulations to come along and then they amended 21 their claims and now you are dealing with claims they wrote 22 to the CARB regulations. 23 Now, there are a lot of questions that go along there. 24 25 For example, he didn't read, and I will read later, 1 about Toyota.

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2 Toyota was telling not just CARB about T50. They 3 sat down and talked to Peter Jessup.

They gave Peter Jessup the numbers about where T50 should go.

6 Then Peter Jessup, after that, for the first time 7 comes up with his numbers for T50 and so on. It really -- to try to say at this point that it's clear you should accept 8 our position on these one, two, three things makes -- I think 9 10 what is making these evidentiary rulings incredibly difficult 11 and so my specific response is my first response. They're claiming commercial success in general. They are claiming 12 13 long-felt need. It's relevant to that.

14 These specific questions are relevant to that, but 15 I do think Mr. Ciresi was -- was wrong in much of what he 16 just described as the relevance of that evidence and a lot of 17 other things.

18THE COURT: All right. We're going to take our19recess.

I will let you know in 15 minutes.

(Recess.)

(Proceedings outside the presence of the jury.)
 THE COURT: Okay. I'm going to sustain the
 objection on the relevance ground.

UNOCAL'S contribution to the regulations or the

1 success of the regulations is really not relevant to whether 2 the patent itself is commercially successful or fills a 3 long-felt need. UNOCAL argues that commercial success is 4 5 demonstrated by the defendant's making an allegedly 6 infringing patent when they are not required to do so. 7 The defendant's response is that, well, we are 8 required by the regulations. 9 And the Court finds that whether or not UNOCAL 10 contributed to the regulations or other success is thus 11 irrelevant. There is no nexus under Stratoflex versus 12 Aeroquip. 13 Okay. Why don't we have the jury in. 14 (Before the jury.) 15 BY MR. CIRESI: Mr. Venturini, putting the predictive Q. 16 model aside for a moment and just dealing with the other 17 limitations in the regulations, are you aware of who recommended that the T50 specification be 210? 18 19 No, I don't recall who or how many may have made that Α. 20 recommendation. 21 Q. Okay. Can you direct your attention to exhibit 983. Which book? 22 Α. 23 Ο. I'm sorry. It's the cross-examination book, sir. It's 24 probably getting a little crowded up there. 25 Α. Okay.

1 the '393 patent? That is the number just left of the 4 billion number. 2 Α. 3 That is 29.1 percent. 4 MR. LUECK: Your Honor, may I have one moment to confer with my colleagues before I close? 5 I would just like to show you one final exhibit, 6 ο. 7 Mr. Stellman. 8 Would you find exhibit 3354 in your first book, 9 please. 10 You can go back to the vision. 11 Α. All right. Yes, I have it. 12 Ο. What does exhibit 3354 show? 13 What we've shown here is a graphical form of the results Α. 14 of our infringement analysis and we've broken it down into 15 premium and regular, premium being 92 and greater, regular being less than 92 road octane. 16 17 On the right side of the graph you see two bars, a 18 red bar and a blue bar. 19 The blue bar shows a number at the top of it there of 74.0 percent. That is 74.0 percent of all the premium 20 produced by the defendant refiners in the subject. 74 21 percent of the premium they produced infringed one or more of 22 23 the patent claims. 24 Also the 13 percent or the red bar is the percent of regular or less than 92 octane gasoline that the refinery 25

or defendant refineries infringed. 1 Then what we have to the left of that are each of 2 the individual refineries of Chevron's two refineries, ARCO 3 refinery, Exxon, Mobil, two Shell refineries and two Texaco 4 refineries. 5 What this shows is how much of each of those two б types of octane gasolines that were infringed by each of the 7 defendant's refineries. 8 MR. LUECK: Your Honor, we move for the admission 9 of exhibit 3354 pursuant to rule 1006. 10 MR. DIAZ: Same objection, your Honor. 11 THE COURT: Overruled. 12 (Exhibit 3354 received into evidence.) 13 **Q**. BY MR. LUECK: I have one final question, Mr. Stellman. 14 If you would just return to exhibit 2938 for a 15 16 moment. 17 Α. All right. I have it. Are the infringing blends and volumes for the period 18 Q. February 22, 1994 through February 28, 1996 set forth in this 19 exhibit as opposed to exhibit 2939? 20 21 Yes, they are. Α. And could that be determined by looking at the date of 22 Q. the blend? 23 24 Α. Yes. 25 MR. LUECK: I have no further questions at this

1 Q. And how does that compare with the infringing gallons 2 per day that you've testified to? 3 The infringing gallons per day that we calculated was Α. 4 roughly 29 percent of 900,000 barrels or roughly 300,000 barrels a day. 5 So the alkylate stream pool would more than make up the 6 ο. 7 infringing gasoline pool, right? 8 Α. If you use those assumptions, yes. 9 Right. Q. Thank you. 10 Is it a fact, Doctor -- I am sorry, Mr. Stellman, 11 is it a fact that refineries cannot store one drop of 12 gasoline in their refineries? 13 Over a long period of time, that's true. Α. 14 ο. I'm talking about a day-to-day basis? 15 Oh, day-to-day you can, sure. Α. 16 ο. Dr. Jessup testified that refineries couldn't store one drop a day. Is that testimony accurate? 17 18 MR. LUECK: Objection, your Honor. You're asking 19 the witness to recall the testimony of Dr. Jessup? 20 MR. DIAZ: He was here. THE COURT: Wait a minute. Excuse me. 21 22 You don't get to argue with each other. 23 I'm going to overrule it because I think the question was not whether or not he recalls he testified but 24 25 does he agree with the statement.

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18	Reporter's Transcript of Proceedings
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by amendment into other existing claims, is abundant in the 1 specification and original claims." 2 3 Then he points out what is of particular importance. And he points out that the specification 4 provides either literal support for the claim limitations or 5 sufficient information to insure that those skilled in the 6 art know what the applicant's invention is. 7 And the patent examiner was specifically told that 8 9 and looked at that and issued this patent. 10 Under her duty and responsibility she had to look 11 at those specifications to make certain that they were sufficient to issue the patent. 12 13 You have already heard from Mr. Venturini that CARB didn't conduct any test like the '393. 14 The fact is, CARB didn't invent anything. And what 15 the evidence showed in this case is that it was UNOCAL that 16 17 gave information to CARB long after Drs. Jessup and Croudace 18 had invented the '393 patent. First of all, Mr. Venturini testified that he 19 20 leaves it up to people out there. That is what CARB does. 21 They leave it to people to invent who are out in the field. 22 And we asked him, "Manufacturers?" 23 He said, "Yes." We asked him about people who make reformulated 24 25 gasoline.

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1	"You would rely on people out there in the
2	country, no matter where they are or whoever they are or
3	whoever they worked for to develop and come up with creative
4	new ways to reformulate gasoline; isn't that right?
5	"Yes."
6	Then I went through with him and we showed him, and
7	the exhibits are there, ladies and gentlemen. And exhibit
8	1376, that was the CVS exhibit put out by Sierra who went and
9	observed and reported on what went on at CARB hearings back
10	in 1991.
11	And we showed that in June CARB had no regulations
12	with regard to T50 or T90, none, zero.
13	When you look at them, it's there.
14	Then they met with UNOCAL and UNOCAL gave them
15	information.
16	In fact, Dr. Croudace was sort of mad that they
17	weren't going to take all the information. If we are going
18	to use the invention, why don't you use all of it and they
19	gave him that information in June.
20	Then in August they came out with regulations,
21	proposed regulations regarding T50 after they met with UNOCAL
22	and got the information from UNOCAL, and Mr. Venturini's
23	testimony is clear on that.
24	I asked him to look at it.
25	"As of June 11 can you tell me where there is any

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1	came from. Because I think that's still an important aspect
2	of this case, because we've been told that they didn't come
3	from the inventors. They came from the lawyer.
4	Well, we know that the lawyer taking what they
5	claim is an invention came up, when he filed the patent
6	application, with a lot of claims. And you've seen one of
7	them, because that was talked about during Dr. Jessup's
8	testimony. The very first claim was less than 8 RVP and less
9	than 215 T50.
10	And it was pretty clearly established that there
11	was a lot of data that Unocal had that the ARCO EC-1 that was
12	being sold at the time fell within those claims.
13	Mr. Jessup and we keep hearing that somehow,
14	because it replaced leaded gasoline, that doesn't matter.
15	Well, in any event, all of those claims are not before you
16	now. The only claims that are before you now were written in
17	March, and these are the claims that I'm talking about, the
18	41 remaining, were written in March of 1992, four months
19	after the CARB regulations were passed. And at that time
20	you'll see looking into the file history they added these 41
21	claims and a lot of others.
22	I said in the opening statement that the claims
23	that were written in March of 1992 were copied from CARB.
24	And I am going to say it again, and I'm going to show you why
25	I say that and why the evidence supports that.

But first, I want to say why it seems to me to be, 1 and seems to us to be important that these claims were copied 2 from CARB and to some extent from other parts of state law. 3 It shows that these claims, which are supposed to 4 be the invention, didn't come -- these combinations of 5 6 properties didn't come from any work that Drs. Jessup or 7 Croudace did or that anybody at Unocal did. If they copied 8 them later from CARB, they didn't flow out of any discovery, any work, any tables, anything that they put in the front 9

10 | part of the '393 patent.

It also shows we believe, that there's nothing special about this combination of numbers. What turns out to be special, and the reason we're here, is that by copying the CARB regs, they make our clients, who are still making gas in California, trip over them some parts of the time when they are making gasoline according to CARB's predictive model.

You've already heard that you can -- you can trade off olefins and aromatics under the predictive model, and what happens, as our clients are making gasoline as cheaply as they can under the model, some of the gasoline has properties that are covered by some of these claims. And that's what the infringement part of the case is all about.

But first I want to talk about why we say that these were copied. Could we see, as a reminder, 16,296 on the board, which are the CARB summer specifications, and

you've seen this many times. And I think you'll remember 1 They set flat limits, and they set average limits. 2 it. And the numbers that you should focus on are the 3 4 flat limit for RVP, the average and flat limits 200 and 210 for T50, and the flat limit for T90, 300. And the olefin 5 6 numbers, 4, 6, and with a cap of 10. Now, could we have slide 28. Now I'm going to 7 8 explain either looking at that board or this board what these colors mean. The colors, the brown color up there on the 41 9 remaining claims under RVP, under T50, under T90 and under 10 olefins are numbers that are exactly the same as either the 11 12 average, the flat, or in the olefins case the cap limit of the CARB regulations. 13 The green is where it says the T10, is the maximum 14 allowed by law. That's exhibit 20, ASTM 4814. 15 16 The yellow, which are the numbers 6.8 and 6.5, which are lower RVP's than the 7. 17 The yellow, take a look at exhibit 420, which I 18 19 showed you before, which says basically if you're going to be 20 blending gasoline that can't be over 7, it's actually, according to Dr. Croudace, actually that means 6.5 or 6.8. 21 So those differences in terms of what a blender has 22 to do are virtually no differences at all. 23 24 And then finally, the blue -- yeah, the blue is 25 special octane values.

Almost everything in these claims, with the exception of what is left in white, and that appears in claim 20 and a couple of the -- a few of the T50's, 205, 203, and then the paraffin numbers, which don't appear in the CARB regulations, but again, are kind of the inverse of olefins and aromatics.

7 All of those come from state law, either because 8 gasoline has to meet ASTM; gasoline has to be at least 87 9 octane, or gasoline has to meet CARB limits. And that's what 10 we mean when we say that these were copied -- these claims 11 which were never written down until the Air Resources Board 12 had passes the regulations, were copied from the CARB 13 regulations.

Can I see slide 29 and go through the reasons for that with you. Here's all the reasons. First of all, these claims were changed after the regulations. I talked to you about the RVP T50 and olefin numbers are the same.

18 If you look at exhibit 418 and 420, you will see 19 that Dr. Croudace was writing reasons why Unocal was against 20 the CARB regulations and didn't think that they were appropriate and didn't think that RVP should be set where it 21 22 was, didn't think that T50 ought to be set where it was, 23 didn't think that the limits on olefins made any sense, and yet here they are claiming them as an invention after 24 opposing them. 25

Mr. Cunningham has told you that the patent 1 2 description of the patent leaves open over a trillion possibilities. So this couldn't be a coincidence that they 3 hit the CARB claims. 4 5 Nothing in the patent specification or the original claims point to the claim combinations. That's what Dr. 6 7 Lyons talked about. 8 And then finally, the way the claims are written, 9 they completely blanket -- and we went through that. They 10 blanket the CARB regulations for RVP, T50, and olefins. They put in every possibility. 11 12 So now back to instruction 53, which is the obviousness instruction that you will be working with. 13 Could 14 we see instruction 53 at the bottom, please. Let's focus on 15 the last paragraph. 16 Okay. You have worked through the prior art, level 17 of skill in the art. You've figured out where these numbers 18 came from. Did they grow out of the invention in some way, 19 or were they copied from CARB later on. Is there anything 20 about these numbers that are special or unexpected that would 21 implicate instruction 72. You've worked through all of 22 that. 23 And then there's one other thing you have to do, 24 which is against this background. You will make your 25 conclusion whether the evidence clearly and convincingly

United States District Court 1 Central District of California 2 3 Honorable Kim McLane Wardlaw, Judge Presiding 4 5 Unocal Corporation and Union Oil 6 Company of California, 7 Plaintiffs, 8 No. CV 95-2379-KMW vs. 9 Atlantic Richfield Company, 10 Chevron U.S.A., Inc., Exxon Corporation, Mobil Oil Corporation, Shell Oil Products 11 Company and Texaco Refining And Marketing, Inc., 12 Defendants. 13 14 15 16 17 Reporter's Transcript of Proceedings 18 Jury Trial - Day 44 Los Angeles, California 19 Thursday, October 16, 1997 20 21 22 Mark Schweitzer, CSR Official Court Reporter 23 562 United States Courthouse CERTIFIED COP Roybal Federal Building 24 255 East Temple Street Los Angeles, California 90012 25 (213) 626-7570

the relevant Georgia Pacific factor, the absence of those 1 2 things is powerful evidence tending to lower the reasonable royalty in the negotiation. So we should be able to 3 establish briefly the absence of those values which would 4 tend to drive down --5 THE COURT: We'll get to that point. 6 7 With respect to the jury instruction, however, I would like to have something, if you can agree on it, at the 8 beginning of the trial this time. So by Tuesday morning, if 9 10 you could submit a stipulated form of instruction on the reasonable royalty. 11 12 And let me clarify which with the plaintiff. 13 You've represented that you're not going to go after the 14 price erosion theory of damages, that you're going to limit 15 it to reasonable royalty. But that leaves open the question of whether there's some other measure of compensation to the 16 17 plaintiff that might increase the amount of damages over 18 reasonable royalty. 19 Is there any other theory out there, or are you willing to limit your testimony exclusively to the reasonable 20 21 royalty? 22 MR. LUECK: We are going to limit ourselves 23 exclusively to a reasonable royalty; however, our experts are prepared to testify to an access fee. Whether we proceed on 24 25 that theory or not, we haven't decided. But that's not a

lost profits issue. There would be no additional damages
 issue beyond that.

MR. GOULD: Your Honor, I believe there is one 3 unless they are now dropping it. They have also in their 4 5 expert reports indicated they are trying for a minimum royalty, either in the alternative originally, and it appears 6 7 now from the original charges cumulative, that not only is there running reasonable royalty, there's also a minimum 8 royalty, even if there's very low infringement. You'd have 9 to pay it on five percent of the output of the refinery, even 10 if only say a half percent actually infringes. So that's 11 beyond a reasonable royalty. 12

13 THE COURT: But wouldn't that be sort of a term 14 that might be agreed upon by hypothetical negotiators? That 15 would come in under the reasonable royalty theory.

16 MR. GOULD: Arguably. But it's not strictly the 17 <u>Georgia Pacific</u> reasonable royalty of a running rate is my 18 point.

19THE COURT: I don't take Georgia Pacific factors to20be exclusive anyway, but they are definitely helpful.

MR. GOULD: Correct.

21

22 THE COURT: And illustrative.

23 MR. GOULD: I'm just trying to clarify exactly what 24 it is they will be claiming, whether they are going for the 25 minimum royalty in the alternative or in addition to an

1	United States District Court Central District of California
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4	Honorable Kim McLane Wardlaw, Judge Presiding
5	
6	Unocal Corporation and Union Oil : Company of California, :
7	Plaintiffs, :
8	:
9	vs. : No. CV 95-2379-KMW
10	Atlantic Richfield Company, : Chevron U.S.A., Inc., :
11	Exxon Corporation, Mobil Oil : Corporation, Shell Oil Products :
12	Company and Texaco Refining : And Marketing, Inc., :
13	Defendants.
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18	Reporter's Transcript of Proceedings Jury Trial - Day 45
19	Los Angeles, California Tuesday, October 21, 1997
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20	MORNING SESSION
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23	Mark Schweitzer, CSR Official Court Reporter
24	CERTIFICOPY 562 United States Courthouse Roybal Federal Building 255 Fact Temple Street
25	
20	Los Angeles, California 90012 (213) 626-7570

So that number would be in the minds of the
 hypothetical negotiators at the time they conducted their
 negotiation.

Now, the evidence will also show that there were 4 other options that could be considered. One option that may 5 be proposed is that, for example, the T50's could be kept at 6 7 a specific level outside the infringement area of the '393 patent claims. Dr. Teece will testify that that's not a 8 viable option in this case. I'd like to take you back for a 9 moment to the testimony of Mr. Stellman and show you exhibit 10 number 2939 which was introduced in the liability trial. 11

Now, exhibit 2939 was one of the summaries of infringement that Mr. Stellman had put together. And on the second page he set forth his calculations about the total amount of CARB gasoline that had been produced during the period of infringement. That's March 1 of 1996 through July 31 of 1996. And he also set forth his calculations about how much of that gasoline infringed claims of the '393 patent.

Now, remember that when you go into the jury room, you will be hypothetical negotiators. But you will have evidence of what actually occurred after the hypothetical negotiation to assist you in determining what is a reasonable royalty to be applied to the infringing gallons.

Let's go back and look at what the evidence was. Mr. Stellman found 4,122,409,748 gallons of total CARB

production by the six defendants during that period. Roughly 1 4.1 billion gallons. 2 During that same period, he found roughly 1.2 3 billion gallons of infringing gasoline. So you can take that 4 fact and consider that in conducting the hypothetical 5 negotiation and what impact that fact has upon the avoidance 6 options that the defendants may have had. 7 And what this evidence shows, ladies and gentlemen, 8 is that in fact the 41 claims of the '393 patent do provide 9 flexibility in blending to meet the CARB regulations. That 10 works out to 29.2 percent of the volumes that they made 11 during that time period, March 1 to July 31. 12 That's where they actually used the patent in 13 14 complying with CARB. Now, the evidence will also show that, for example, 15 if one were to try and keep their T50 at a single point 16 throughout the entire summer, Mr. Stellman's records show, 17 and the defendants' batches show, that in fact T50's varied 18 widely during that period. That is the adaptability of 19 20 composition of motor gasoline that you heard about before. Each refiner blends each blend to get the lowest 21 optimum cost so that they can sell it and make the largest 22 profit. That's what they do. 23 24 This evidence shows you what actually took place during that period and shows you how valuable this patent 25

1 is.

- 1	18.
2	Now, there is another avoidance option that you
3	will hear testimony about during this case, and that is that
4	the defendants could have avoided premium infringement by
5	changing the octanes from 92 to 91. You'll recall that a
6	number of the claims of the '393 patent had limitations that
7	the octane level had to be above 92 octane. So one of the
8	things that might be proposed by a hypothetical negotiator is
9	to reduce the octane from 92 to 91.
10	Now, I'd like to show you another chart that
11	Mr. Stellman introduced during the first phase of the trial.
12	And that is exhibit 3354. And here you will see that the
13	premium infringement ran at a rate of 74 percent of all of
14	the premium that they made.
15	So what that means is that even if someone invoked
16	this option, that would not get rid of all of the
17	infringement. So the hypothetical negotiators would know
18	that they would not reduce their infringement to zero by
19	going from 92 to 91.
20	Now, there is another reason, and actually there
21	are a number of reasons that you will hear during the trial
22	why the 92 to 91 avoidance option would not be selected by
23	hypothetical negotiators. But one of the reasons is found in
24	the way that oil companies operate.
25	And in fact you will recall, perhaps from the first

trial, ARCO's EC-P in which they were considering introducing 1 the EC-P premium. An internal memo from ARCO just before 2 their introduction that have gasoline shows what a lot of 3 refiners thought at the time of the hypothetical 4 negotiation. 5 I'd like to show you exhibit 2394. This shows you 6 questions and answers that ARCO was considering about the 7 introduction of its EC Premium. And if you look at the 8 second page, at item number 8, one of the questions they 9 prepared for is: "Why are you making a 92 premium when 10 most cars don't need so much octane? Wouldn't 11 you do more environmental good by making a 12 lower octane unleaded?" 13 "Virtually all of our competitors The answer: 14 offer a 92 octane premium. The reality of 15 today's market is that a 91 octane is not as 16 competitive as a 92. While many cars don't 17 require 92 octane, there are a great many 18 19 people who prefer to buy a high octane fuel." And that would have been in the mind of the 20 hypothetical negotiators when they considered that option. 21 Now, lastly I'd like to talk about some other 22 documents that you will see. We expect that two documents 23 that will be introduced are a memo by Dr. Croudace and a 24 poster board that was prepared by Dr. Jessup. And it will be 25

suggested that this memo and this poster board are things 1 that set the value of the '393 patent. I'd like to talk to 2 you first about the memo from Dr. Croudace. You may recall 3 This was a document we introduced in the liability this. 4 phase of the trial when Dr. Croudace was on the stand. 5 And in there, he wrote something along the lines 6 of, if you consider the patent at 1/10 of a cent per gallon 7 times so many gallons. And he had a very large number, 8 something like 100 billion gallons or something like that. 9 You get "X" amount of dollars. 10 The poster board was something that Dr. Jessup made 11 for an open house that the science and technology group had. 12 And at that open house, one of the top executives at Unocal, 13 Neil Schmalley (ph), the chief financial officer, was going 14 to attend, and Dr. Jessup wrote a similar sort of formula. 15 He said if you consider the value of the patent at a penny 16 per gallon times some large number, and again I don't 17 18 remember what the number of gallons were, you come out with a 19 large number. 20 The evidence in this case will show that these inventors were doing what inventors do typically. They want 21 22 to draw attention of their work to management. And they want 23 to continue doing their research and increasing their 24 research budget.

25

In this trial you are going to have a number of

experts testify, the two that I told you about, Dr. Teece and
 Mr. Dry for Unocal, and several experts from the defendants.
 These experts have all conducted lengthy analyses of these
 questions to come up with information that you can consider
 in the hypothetical negotiation.

6 The evidence is going to show that Dr. Jessup and 7 Dr. Croudace didn't do anything like that. Nor frankly did 8 they have the skills to make those sorts of analyses. They 9 were inventors, and they were hoping to increase their 10 research budget.

Now, ladies and gentlemen, at the close of the 11 evidence, you're going to retire to conduct your 12 deliberations. At that time you're going to put yourselves 13 in the position of the hypothetical negotiators. You're 14 going to consider what was in the minds of those hypothetical 15 negotiators at the time. You will understand what Dr. Teece 16 17 will testify to, that the cost of avoidance is approximately 29 to 35 cents per gallon. Dr. Teece will testify that in 18 his opinion, based upon that avoidance cost, the parties 19 20 would have agreed to a reasonable royalty as damages to Unocal in the amount of 5 to 7 and one half cents per 21 22 infringing gallon.

You will have the information of Mr. Dry, who will
tell you about how his analysis of the hypothetical
negotiation leads him to a reasonable royalty rate of 7 cents

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1	per gallon. And you will retire to the deliberations to
2	conduct your own hypothetical negotiation.
3	At that time you will consider that the parties are
4	willing to reach an agreement, that they will be infringing
5	the patent unless they do reach an agreement, that they will
6	be reasonable in their negotiations, and that the patent is
7	valid and about to be infringed.
8	At that time, ladies and gentlemen, we will return
9	before you and ask you for damages to Unocal for the period
10	of March 1, 1996, through July 31, 1996, in the amount of a
11	reasonable royalty of 5 to 7 and a half cents per gallon of
12	infringing motor gasoline made during that period.
13	Thank you.
14	THE COURT: Thank you, Mr. Lueck.
15	Mr. Keker.
16	MR. KEKER: Mr. Gould is going to give the opening
17	statement.
18	THE COURT: That's all right.
19	Defendants' Opening Statement
20	By Mr. Gould: Good morning, ladies and gentlemen of the
21	jury. Since I'm new to the jury here, let me introduce
22	myself again. I'm Jim Gould.
23	We know that you were here for over three months in
24	the first phase of this trial. We know that you were back in
25	that jury room for many days carefully considering the law

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1	A. Well, yes. Sequentially. They won't all be sitting at
2	the same table at the same time. Your diagram displays it
3	correctly. There are one-on-one negotiations between Unocal
4	and the defendants.
5	Q. Do you understand that the purpose of the hypothetical
6	negotiation is that this willing licensor and willing
7	licensee will arrive at a negotiated reasonable royalty?
8	A. Yes. It's kind of a simulation of the world that didn't
9	take place. We know that there wasn't a license arrangement
10	that was entered into. So we now have to go back and create
11	it. At least the jury does.
12	Q. And in conducting your analysis in making a
13	determination of what you believe the reasonable royalty
14	should be, based upon all the facts and circumstances of this
15	case, did you determine what would be the hypothetical
16	negotiation date?
17	A. Yes.
18	MR. GOULD: Objection. Foundation, your Honor.
19	THE COURT: Overruled.
20	BY MR. CIRESI:
21	Q. And what date did you determine would be the
22	hypothetical negotiation date?
23	A. Approximately April of 1995.
24	Q. And what was the basis of your selecting that time as
25	the hypothetical negotiation date?

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1	A. My understanding is that a hypothetical negotiation has
2	to take place at the time of first infringement. And the
3	data that I have seen indicates that in the month before, in
4	March of 1995, at least two of the defendants, Chevron and
5	Texaco, had made infringing barrels of gasoline.
6	And then in the month after, several others also
7	made infringing gallons.
8	Q. Why do you set a hypothetical negotiation date?
9	A. Well, because sometimes it matters just when the
10	negotiation takes place. Actually, in this case I don't
11	think it matters a lot. But in some circumstances the time
12	at which the negotiation took place is important in terms of
13	the bargaining power of the licensor, in this case Unocal,
14	and the licensees, in this case the defendants.
15	Q. You said that in this case you don't think it makes a
16	lot of difference with regard to the date.
17	What did you mean by that?
18	A. Well, even if the date were to slip back, I don't
19	think excuse me, slip forward in time, I don't think it
20	would really change the fundamentals of the bargaining
21	position.
22	If anything, as we move forward in time, of course,
23	from '95 towards '96, in March of '96, the CARB regulations
24	come into effect. The defendants would be under all the more
25	pressure to take a license and the bargaining power could

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l	well shift in Unocal's favor.
2	But for purposes of my study, I'm willing to assume
3	that it really doesn't matter very much. And April of '95 is
4	the date that I've chosen.
5	Q. Now, when you looked at the hypothetical negotiation,
6	did you make a determination that the royalty would be
7	determined for the period March 1996 through July 31, 1996?
8	A. I figured that in the hypothetical negotiation, they
9	would have to come up with a reasonable royalty which would
10	apply for that period.
11	Q. Now, Doctor, based upon your experience, your expertise,
12	your evaluation, and your investigation of all of the
13	information in this case, do you have an opinion as to the
14	reasonable royalty that would have been agreed to between
15	Unocal and the defendants for a license of the '393 patent as
16	a result of the defendants' need for that license?
17	A. Yes, I do.
18	Q. And what is that opinion?
19	A. It would be somewhere between 5 cents per infringing
20	gallon and 7.5 cents per infringing gallon.
21	Q. Doctor, I'd like to discuss with you for the benefit of
22	the ladies and gentlemen of the jury the basis upon which you
23	have arrived at that opinion.
24	Did you consider strategic alternatives available
25	to the defendants at the time of the hypothetical

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1	negotiation, which would impact the royalty they would be
2	willing to pay?
3	A. Yes, I did.
4	Q. I'm going to place a blowup up here that's trial exhibit
5	3380?
6	MR. GOULD: Your Honor, my records may be
7	mistaken. Mine indicates this was not identified as an
8	exhibit to be used with the witness.
9	THE COURT: 3380?
10	MR. GOULD: 3380.
11	THE COURT: All right. It's in the book.
12	MR. CIRESI: Yes, we did. I sent you a letter.
13	You may have it as 79 and 80.
14	THE COURT: All right. Let's take this up outside
15	the presence of the jury. It's not admitted yet. Let's use
16	it, and we'll see if there's a problem later.
17	BY MR. CIRESI:
18	Q. Now, does that board list the alternatives that you
19	looked at in considering a reasonable royalty?
20	A. Yes, it does.
21	Q. Now, would Unocal have been aware of these
22	alternatives?
23	A. Yes, I believe Unocal would have been aware of them, and
24	each of the defendants would have been aware of them.
25	Q. One is to ask CARB to relax the CARB regulations;
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1	correct?
2	A. Yes.
3	Q. Another is to attempt to pay the 15 cent CARB waiver;
4	correct?
5	A. Yes.
6	Q. The third is for the defendants to downgrade their
7	premium from 92 octane to 91 octane.
8	A. Yes.
9	Q. A fourth is to attempt to blend around the '393 patent.
10	A. Yes.
11	Q. A fifth is entitled export/import, 29 to 35 cents per
12	gallon; correct?
13	A. Yes.
14	Q. Now, you were here during the opening statements?
15	A. Yes.
16	Q. I think Mr. Gould referred to that as the Panama
17	option. Do you recall that?
18	A. Yes.
19	Q. And you also heard him talk about an option to go to
20	different countries that some of the other defendants do?
21	A. Yes.
22	Q. Now, when you look at this export/import option, did you
23	use the defendants' own documents as a basis of analyzing
24	what it would cost to implement that alternative?
25	A. Yes. In fact it was in reading the documents of the

1	defendants and looking at the analysis they did when they
2	were considering their options for dealing with the CARB
3	regulations that I saw this scenario play out.
4	In fact I believe all but possibly one of the
5	defendants went through an exercise of analyzing the
6	economics of exporting conventional gasoline out of
7	California and importing CARB gasoline in from elsewhere as
8	one way to comply with the CARB regulations. So since they
9	had all gone through that exercise in the context of looking
10	at CARB, it was apparent to me that I had to go through that
11	exercise with respect to how they might try and deal with
12	avoiding licensing the '393 patent. And I simply applied the
13	same basic methodology.
14	Q. So the defendants looked at an export/import alternative
15	to CARB itself. Is that what you're saying?
16	A. Yes. When they were contemplating whether or not to
17	make investments in California refineries to upgrade them for
18	CARB, they went through such an exercise.
19	Q. Doctor, in that regard, what role does the irreversible
20	fixed asset play?
21	A. Well, it's very much an important background factor
22	because if you've got these refineries in California, you
23	really can't close them down, even if you want to, because
24	you would have enormous costs associated with environmental
25	clean up. So you're stuck there with a very valuable asset.

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1	extent, there's an irreducible core that would be very, very
2	hard and very expensive to blend around. So there's always
3	going to be some level of infringement. And if in the
4	negotiation the licensees make strong points to that effect,
5	then Unocal's optimal strategy is to say, well, then, since
6	it's not going to be on many gallons, let's up the royalty.
7	Q. Did you consider the I guess you've answered.
8	You didn't consider the 91 octane a viable economic
9	alternative; correct?
10	A. Correct.
11	Q. Now, Mr. Gould mentioned that the defendants could go to
12	CARB and say well, Unocal has this patent, and we want you to
13	change your regulations.
14	You heard that in the opening statement?
15	A. Yes.
16	Q. Did you consider that strategic alternative?
17	A. Yes, I did.
18	Q. Did you consider that a viable alternative?
19	A. I don't believe it's viable.
20	Q. And what's your basis for that, sir?
21	A. Well, there's several bases for it.
22	One is that CARB and this is thinking back from
23	'95 is taking the position that these regulations are
24	good and that it's going to result in a cleaner environment
25	and cleaner burning gasoline is good for California. So it

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1	would be very hard for CARB, given the public positions it's
2	taken, to then say, well, but now we think we'll roll back
3	this regulation a little bit to make it possible for the
4	potential licensees here to avoid paying a patent to Unocal.
5	So I think there would be a problem with the public
6	position that CARB has taken, and secondly there is evidence
7	in the record, I believe it was Mr. Dean Simeroth who said
8	that. Take RVP, for instance. One way that you could relax
9	regulations would be to allow a higher specification for
10	RVP.
11	He said that 1/10 of a point of RVP was critical to
12	CARB, and they wouldn't want to give that up.
13	Q. And Mr. Simeroth worked for CARB; is that correct?
14	A. Yes, I believe he was a CARB official.
15	Q. Are there any other alternatives you believe would be
16	realistically considered by the hypothetical negotiators?
17	A. No, I don't believe so.
18	Q. Now, you saw documents of Drs. Jessup and Croudace, and
19	they were referenced, I believe, by both Mr. Lueck and
20	Mr. Gould today.
21	A. Yes.
22	Q. One dealt with a 10th of a cent and had a large number,
23	I think it was \$114 million, that was up on the table or on
24	the board here.
25	A. Yes.

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1	But isn't it true that you can avoid infringing
2	with the premium gasoline if you control the paraffins below
3	75 percent and lower the octane below 92?
4	A. I believe that's correct.
5	Q. And you've done no study as to how difficult it would be
6	to control the paraffins below 75; correct?
7	A. Correct.
8	Q. So you have no study or no opinion here as to how hard
9	or easy that is to do in the refinery; correct?
10	A. Correct.
11	Q. You do agree there's no technical difficulty in a
12	refinery lowering the octane to 91; correct?
13	A. Correct.
14	Q. Easy to do; correct?
15	A. Yes.
16	Q. Saves you a little money in the refinery; correct?
17	A. In the refinery, yes.
18	Q. Now, in the hypothetical negotiation to determine the
19	reasonable royalty, didn't you assume in your analysis that
20	Union Oil and the defendants would have in mind that 90
21	percent of the cost of the royalty would be passed through to
22	consumers?
23	A. In the context of doing lost profits analysis, I assumed
24	that about 90 percent would be passed on.
25	Q. I'm asking, sir, in the context of the hypothetical

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1	negotiation itself?
2	A. I believe that they would consider that number to be
3	proper there as well, yes.
4	Q. And in your expert opinion, you said that motorists
5	ought to be happy to pay 4 or 5 cents of some of this royalty
6	to Union Oil to help fund these payments; correct?
7	A. Yes.
8	Q. Now, you've never been in charge of marketing gasoline
9	in California, have you?
10	A. No.
11	Q. And you didn't ask any of the defendants' marketing
12	people here in California what they thought about your idea
13	if they would rather pay a 7 and a half cent royalty rather
14	than going to 91 octane; correct?
15	A. Correct.
16	Q. Now, on this logistics around the 91 octane, isn't it
17	true that some companies had their own proprietary pipelines
18	for their own gas?
19	A. Yes.
20	Q. They wouldn't have any problem moving 91 octane over
21	their own pipelines, would they?
22	A. Correct.
23	Q. Is it fair to say that the only value to this '393
24	patent that you are presenting to this jury is that, if the
25	defendants took a license, they wouldn't have to spend the

CARB regulations as compared to investing in the refineries 1 in California. 2 This is not blue sky stuff. This is precisely the 3 methodology that these defendants, potential licensees of the 4 negotiation, used two years or so earlier when they were 5 confronting a similar circumstance. 6 And in the real world, every single one of the companies 7 Q. rejected that alternative; correct? 8 They rejected it as they would here, and they would take 9 Α. the license. 10 And what the companies did is they rejected and spent 11 0. the money to change their refineries so that they could 12 comply with the regulations; correct? That's the sunk money 13 you're talking about. 14 And the analogue here is that they would take the lower 15 Α. 16 cost alternative, which is the license. But here in this case, by the time of the hypothetical, 17 ο. the defendants have spent all this sunk money, the billions 18 of dollars. They have made the very choice they already 19 said. We'll invest the money so we can control T50 and T90, 20 and it's all in there. It's all in place, and we've spent 21 22 the money. You're absolutely right, because they have made billions 23 Α. 24 of dollars of upgrades, but they haven't taken into account 25 the fact that the '393 patent is out there. So they are

1	stuck, and they're going to have to take the license.
2	Precisely my point, Mr. Gould.
3	Q. You say they are stuck. But the real issue here is are
4	they really stuck that all they can do is export and import,
5	or is it really possible that a much lower cost than 35 cents
6	to do things in the refinery using what they had available in
7	place to make CARB gas and use that equipment to also avoid
8	the patent? Isn't that the real issue here, sir?
9	A. They will use that to the maximum extent they can. And
10	this royalty is set up so that to the extent to which they
11	can do it that way, they don't have to pay.
12	It's a running royalty only on the infringing
13	gallons. So if they are able to work down the amount of
14	infringement, as some of them might be able to through
15	blend-around, they get the benefit. They don't have to pay
16	the royalty on those gallons, but at the end of the day,
17	there's going to be significant volumes left that are
18	infringing, and they are going to have to pay the royalty on
19	that.
20	Q. And you say at the end of the day, there would be
21	significant volumes of infringement no matter what they did;
22	correct? Is that your opinion as an economist or as a
23	refinery expert?
24	A. That's not what I said. Because no matter what they
25	did, if they exported it out, there wouldn't be significant

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United States District Court 1 Central District of California 2 3 Honorable Kim McLane Wardlaw, Judge Presiding 4 5 Unocal Corporation and Union Oil 6 Company of California, : 7 : Plaintiffs, : 8 : : No. CV 95-2379-KMW vs. 9 Atlantic Richfield Company, : Chevron U.S.A., Inc., 10 : Exxon Corporation, Mobil Oil : Corporation, Shell Oil Products 11 : Company and Texaco Refining : And Marketing, Inc., 12 Defendants. 13 14 15 16 17 Reporter's Transcript of Proceedings Jury Trial - Day 49 18 Los Angeles, California 19 Tuesday, October 28, 1997 20 MORNING SESSION 21 22 Mark Schweitzer, CSR Official Court Reporter 23 562 United States Courthouse Roybal Federal Building 24 CERTIFIED COPY 255 East Temple Street Los Angeles, California 90012 25 (213) 626-7570

1 arguments. After closing arguments, you will again undertake deliberations, this time on the question of damages. 2 In this stage of your deliberations, you are to 3 abide by the jury instructions as to which the Court has 4 5 previously instructed you. Copies of those instructions will 6 remain in the jury room; however, now that you have found 7 that Unocal has a valid patent and that defendants infringed that patent, you must award Unocal a reasonable royalty. I 8 9 will instruct you on the law that applies to the award of a 10 reasonable royalty now. 11 In this case, the royalty is the amount of money 12 defendants are required to pay to Unocal for their 13 infringement of the '393 patent. 14 Unocal has the burden of proving damages by a 15 preponderance of the evidence. 16 A reasonable royalty is the amount of money that a 17 willing patent owner and a willing prospective licensee would 18 have agreed upon at the time the infringement began for a 19 license to make, use, or sell the invention. 20 The determination of a reasonable royalty does not depend upon the actual willingness of the parties to this 21 22 lawsuit to engage in such negotiations. 23 In one method of determining what royalty is reasonable, you may imagine that hypothetical negotiations 24 25 took place between Unocal and each of the defendants at or

about the time that the patent was first infringed. 1 This method of calculating damages requires you to 2 assume that Unocal and the defendants agree that the '393 3 patent is valid and would be respected by the defendants. 4 In deciding upon the reasonable royalty, you may 5 consider noninfringing alternatives to the '393 patent that 6 may have been available to the defendants. 7 Although the starting point for determining a 8 reasonable royalty begins at the time of infringement, you 9 may also consider events and facts that occurred after that 10 time. 11 In determining a reasonable royalty, you may 12 13 consider the following: Whether there was an established royalty before 14 1. the date of infringement. An established royalty is based on 15 what Unocal received from actual licenses from making, using, 16 17 or selling the invention. 18 2. Royalty rates paid for comparable patented inventions, if any. 19 20 3. Whether the license would be exclusive or 21 nonexclusive or restricted or nonrestricted in terms of 22 territory or with respect to whom the manufactured product may be sold. 23 24 Whether Unocal had a policy and marketing 4. 25 practice of refusing to grant licenses.

5. The commercial relationship between defendants 1 and Unocal, such as whether they were competitors. 2 The duration of the patent period remaining and 6. 3 the term of the license. 4 The established profitability of the product 7. 5 made for under the patent, its commercial success, and its 6 7 current popularity. 8. Utility and advantages of the patented 8 invention over modes or devices previously used. 9 The nature of the invention, the character of 9. 10 the commercial embodiment as owned and produced by Unocal, 11 and the benefits to users of the invention. 12 The extent to which the defendants have made 13 10. use of the invention and any evidence probative of the value 14 of that use. 15 The portion of the profit or selling price 16 11. normally allowed for use of the invention or similar 17 inventions in operable businesses. 18 The portion of the profit credited to the 12. 19 20 patented invention as distinguished from nonpatented elements, the manufacturing process, business risks, 21 significant features, or improvements added by the 22 23 defendants. The impact of the respective bargaining 24 13. 25 positions of the parties, including the desire to maintain

market position. 1 The opinion testimony of qualified experts. 14. 2 The costs of alternatives to avoid 15. 3 infringement. 4 Any other economic or business factor that 16. 5 normally prudent business people would, under similar 6 circumstances, take into consideration in negotiating the 7 hypothetical license if both parties had been reasonably and 8 voluntarily trying to reach an agreement. 9 We'll now have closing argument. 10 Mr. Ciresi, you may begin. 11 Plaintiffs' Closing Argument 12 By Mr. Ciresi: Thank you, your Honor. May it please the 13 Court, counsel, ladies and gentlemen of the jury. Good 14 morning. 15 It is now your responsibility to award Unocal a 16 reasonable royalty for the defendants' unauthorized use of 17 the '393 patent for the period March 1 through July 31, 18 1996. 19 As in the liability phase, I am confident that your 20 collective common sense, judgment, and experience will lead 21 you unerringly to resolve the issue that remains in front of 22 you. 23 As the court has instructed you, the determination 24 of a reasonable royalty does not depend upon the actual 25

1 your attention. THE COURT: Thank you, Mr. Keker. 2 Mr. Ciresi. 3 Rebuttal Argument 4 By Mr. Ciresi: Remember last time we had the board up there, 5 and Mr. Keker went on whether it was yes or no, and he got it 6 7 the wrong one. This time they wrote it out for him and put 8 it on the board up there to get the right number, and I'm glad you left all the hats, Mr. Keker. I'm going to wear 9 10 one, since I represent Unocal. 11 And Mr. Beach would not say anything that you just 12 said, sir. Let me just briefly deal with a couple of points 13 that Mr. Keker made. 14 15 He said this cost avoidance, and this would go on 16 for 17 years and they could go to 91, and there would be no 17 infringement, that they could do it for nothing. Can vou 18 imagine that? He comes in here and says to the ladies and 19 gentlemen of the jury, "We could simply do this for 20 nothing." 21 Why didn't they? In other words, it would make no 22 difference what happens for the next 15 years, depending upon whatever royalty you find. And that's for you to find. I 23 24 didn't write any number because that's your duty. That's 25 your responsibility.

1	But you are only concerned with the period March 1
2	through July 31, 1996. If they really think they can do what
3	he put up on the board here, let's give them credit for what
4	he says. They couldn't do it back in 1996, even though all
5	of these analyzers, the Honeywell TD3000 controllers, all of
6	those things were on their assembly lines or the blending
7	lines. They could have done it, but let's say they couldn't
8	do it. Well, they could do it in the future. So let them do
9	it. He seems to think that they can do it for nothing.
10	Now, of course, 14 of the 41 claims don't have a
11	paraffins requirement, and 23 of the 41 claims do not require
12	a 92 octane.
13	Once again, they simply do not accurately reflect
14	what the facts are in this case.
15	Mr. Dry, talking about gall and the Texaco patent,
16	he says, "I used that word because I get the implication
17	in your questions that somehow I am being
18	unreasonable and using a portion of the
19	penalty that personally I think was perfectly
20	acceptable for Texaco to have done." That's what
21	Mr. Dry testified to.
22	This determination that you ladies and gentlemen of
23	the jury have to do is only for the period that I've talked
24	about. And again, if they could have done this back in 1996,
25	then they should have done it. Every single piece of

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1 refinery reconfiguration was in place. Why would they spend 2 millions upon millions of dollars to fight a lawsuit when all 3 they had to do is drop a number, and there would be zero 4 cost?

Why would they do that? It doesn't pass the smell 5 test, folks. It doesn't pass the common sense that you bring 6 to bear on the issues in this case. He says that Unocal 7 doesn't use it. Well, read Mr. Beach's testimony. He 8 testified that Unocal does use it, and it was used in the 9 10 design process. They even designated the testimony. That was in the deposition, and yet they ignore that. 11

Said, "CARB cares. They changed the regs." CARB
didn't change the regs. They ignore again the exhibit that
we just saw this morning where they went to CARB in 1995.
They didn't change any regs nor would they change regs to
interject themselves into this litigation.

Ladies and gentlemen, you must decide what it is that would be an appropriate and reasonable royalty. Dr. Teece, in talking about pass on, was talking about lost profits. He read the question right in the context of lost profits. Unocal isn't seeking lost profits. That's another element of damages. They didn't seek that here.

They are seeking a reasonable royalty, a reasonable royalty. And you won't see anything in the criteria that the Court gives you where it talks about what's passed on to the