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**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF ARIZONA**

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9 Jennell D. Andrews, a single woman, )  
10 individually and as surviving mother of )  
11 D.T., decedent, on behalf of herself and )  
12 all statutory claimants of D.T., and as )  
13 natural parent and next of friend of D.A., )

No. CV-07-1591-PHX-DGC

**ORDER**

12 Plaintiff,

13 vs.

14 Bridgestone/Firestone, Inc., a foreign )  
15 corporation; and Bridgestone Firestone )  
16 North American Tire LLC, a foreign )  
17 corporation, )

16 Defendants.

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19 On April 3, 2004, Plaintiff Jennell Andrews was driving with her two minor children  
20 on Interstate 10 near Tonapah, Arizona. Plaintiff’s vehicle suddenly veered out of control  
21 and rolled several times before coming to rest near the median of the freeway. Tragically,  
22 one of Plaintiff’s children died as a result of injuries sustained in the accident.

23 Plaintiff filed a complaint against Defendants alleging that the accident was caused  
24 by a defect in the vehicle’s right rear tire, a Bridgestone Dueler tire (“Dueler Tire”) designed  
25 and manufactured by Defendants. Dkt. #1-2 at 3-18. The complaint asserts five claims:  
26 strict liability, negligence, breach of express warranty, breach of implied warranty, and  
27 negligent infliction of emotional distress. *Id.* Plaintiff seeks compensatory damages  
28 individually and on behalf of her deceased child and all statutory beneficiaries. *Id.*

1 Defendant Bridgestone Firestone North American Tire LLC has filed a motion for  
2 summary judgment. Dkt. #43. The motion has been fully briefed. Dkt. ##47, 49. For  
3 reasons stated below, the Court will grant the motion with respect to Plaintiff's warranty  
4 claims and deny the motion with respect to Plaintiff's negligence and strict liability claims.<sup>1</sup>

5 **I. The Breach of Warranty Claims.**

6 Defendant argues that the breach of warranty claims fail as a matter of law because  
7 there is no privity between the parties. Dkt. #43 at 13-15. Plaintiff concedes this argument.  
8 Dkt. #47 at 4, n.4. The Court accordingly will grant summary judgment in Defendant's favor  
9 on the breach of warranty claims.

10 **II. The Strict Liability and Negligence Claims.**

11 The strict liability and negligence claims are based on alleged manufacturing and  
12 design defects in the Dueler Tire. Dkt. #1-2 ¶¶ 20, 33, 49-50. Plaintiff does not dispute that  
13 expert testimony is required to show that the Dueler Tire was defective. See Dkt. ##43 at  
14 4-5, 47 at 9. Plaintiff's sole expert witness, Dennis Carlson, has submitted a report opining  
15 that the Dueler Tire (1) failed when the tread and upper steel belt separated from the body  
16 of the tire, and that this failure occurred because the tire (2) lacked adequate fatigue strength  
17 and resistance to crack propagation and age deterioration, (3) had an inadequate wedge,  
18 (4) was inadequately tested, (5) had an inner liner that was too thin, and (6) lacked nylon cap  
19 plies. Dkt. #44-2 at 3-29.

20 Defendant seeks summary judgment on the ground that Mr. Carlson's opinions are  
21 inadmissible under Federal Rule of Evidence 702, *Daubert v. Merrell Dow Pharmaceuticals,*  
22 *Inc.*, 509 U.S. 579 (1993), and *Kuhmo Tire Co. v. Carmichael*, 526 U.S. 137 (1999).  
23 Dkt. #43 at 2. Defendant challenges both the qualification of Mr. Carlson and the reliability  
24 of his opinions. *Id.* at 9-11. Plaintiff contends that Mr. Carlson is eminently qualified and  
25 that the reliability of his opinions, and the weight to be given them, are for the jury to decide.

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27 <sup>1</sup>Defendant's request for oral argument is denied because the parties have thoroughly  
28 discussed the law and evidence and oral argument will not aid the Court's decision. See *Mahon v. Credit Bur. of Placer County, Inc.*, 171 F.3d 1197, 1200 (9th Cir. 1999).

1 Dkt. #47 at 4-9.

2 **A. Scope of Expert Testimony.**

3 The Court's Case Management Order, entered on October 2, 2007, established a  
4 schedule for the disclosure of expert reports and the completion of expert depositions.  
5 Dkt. #10. At the parties' request, the Court entered an order on January 22, 2008, extending  
6 the expert disclosure deadlines. Dkt. #19. The order specifically stated that the Court would  
7 not grant additional extensions absent truly extraordinary circumstances. *Id.* The parties  
8 later approached the Court for a second extension, explaining that they had encountered  
9 unexpected scheduling problems. The Court granted a second extension, establishing an  
10 expert deposition deadline of July 30, 2008, and again specifically informing the parties that  
11 the schedule would not be extended absent truly extraordinary circumstances. Dkt. #26.  
12 When the parties approached the Court for a third extension, the Court found that  
13 extraordinary circumstances did not exist. The Court denied the third request for an  
14 extension and stated:

15 If expert depositions cannot be completed before July 30, 2008, the case will  
16 proceed without them and the parties will rely on the Rule 26 expert reports.  
17 Because those reports were required to be full and complete disclosures of the  
18 experts' opinions (Dkt. #10), including a complete statement of all opinions  
to be expressed and the basis and reasons therefor (Fed. R. Civ. P.  
26(a)(2)(A)), the experts will not be permitted to state opinions or provide  
bases and reasons for their opinions that were not included in the reports.

19 Dkt. #37.

20 The experts were not deposed by July 30, 2008. As a result, Mr. Carlson's testimony  
21 at trial will be strictly limited to his expert report dated February 19, 2008. The Court will  
22 decide this motion, therefore, solely on the basis of the expert report. The Court will not  
23 consider the affidavit of Mr. Carlson attached to Plaintiff's response. Dkt. #47.<sup>2</sup>

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26 <sup>2</sup> Because Mr. Carlson's testimony will be limited to his expert report and Defendants  
27 have not presented expert opinion evidence to show that Mr. Carlson's opinions are  
28 unreliable, the Court concludes that a *Daubert* hearing is not necessary. The Court has  
evaluated the sufficiency of Mr. Carlson's opinions by a thorough review of his expert report.

1           **B.     Carlson’s Expert Qualifications.**

2           Defendants seek to exclude the testimony of Mr. Carlson primarily on the ground that  
3 he is not qualified to opine on the cause of the tire failure in this case. Rule 702 permits  
4 expert testimony by a witness qualified by “knowledge, skill, experience, training, or  
5 education[.]” The Court concludes that Mr. Carlson meets this standard.

6           Mr. Carlson has a Bachelor of Science degree in Mechanical Engineering from the  
7 Georgia Institute of Technology. He has a Master of Science in the same discipline from the  
8 Georgia Institute of Technology. Mr. Carlson is a registered professional engineer in the  
9 State of Georgia. Dkt. #44-2 at 15.

10          Following completion of his education, Mr. Carlson worked as a tire designer and tire  
11 test engineer for Michelin America’s Research & Development for approximately ten years.  
12 Initially he tested passenger, light truck, and heavy duty truck tires, for just over one year,  
13 and then designed tires for approximately four and one-half years. He was responsible for  
14 the development of new tire designs and the modification of existing designs. Mr. Carlson  
15 was also involved in outdoor measurement and endurance testing at a test track facility for  
16 approximately five years, and ran tire separation resistance tests and other endurance tests  
17 at this location. The endurance testing included running tires under controlled conditions to  
18 produce a specific failure, such as tread and outer belt separation. Mr. Carlson tested  
19 hundreds of tires to failure and analyzed the results. *Id.*

20          Since leaving Michelin, Mr. Carlson has worked as an independent consultant for  
21 approximately 19 years. He has appeared in scores of tire failure cases on behalf of  
22 Plaintiffs. Mr. Carlson has examined and performed failure analysis on more than 2,000  
23 tires. *Id.* He was chosen to assist the attorneys general from 50 states in their investigation  
24 of the Firestone tire separation problem. *Id.*

25          Defendants’ attack on Mr. Carlson’s qualifications primarily concerns what he has not  
26 done. They note that Mr. Carlson is not a chemist or a tire compounder, that he did not  
27 modify the internal construction of tires while at Michelin, that he never designed a cap ply  
28 or similar component, that he does not recall inspecting Michelin passenger or light truck

1 tires returned from service with tire/belt separation, that he has no non-litigation experience  
2 with respect to other tire manufacturers, and that he has done no indoor laboratory or wheel  
3 testing on tires. This lack of experience notwithstanding, the Court concludes that Mr.  
4 Carlson is a witness qualified as an expert by knowledge, experience, training, and education  
5 to testify on the cause of the tire failure in this case. Mr. Carlson has graduate-degree  
6 training in mechanical engineering, worked for several years for a tire manufacturer,  
7 including work on the causes of tire failure, and has spent 19 years consulting and evaluating  
8 failed tires. Defendants will be free to explore each area in which he lacks specific  
9 experience or training during cross-examination, and to emphasize that much of his  
10 experience has been as a paid expert witness for plaintiffs in tire failure cases. The Court  
11 cannot conclude, however, that the shortcomings identified by Defendants render Mr.  
12 Carlson so unqualified that the Court should find his testimony inadmissible under Rule 702.

13 **C. The Reliability of Mr. Carlson's Opinions.**

14 Rule 702 further provides that a qualified expert may express opinions at trial "if  
15 (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of  
16 reliable principles and methods, and (3) the witness has applied the principles and methods  
17 reliably to the facts of the case." The third requirement is particularly important in this case  
18 because Defendants contend that the facts and evidence relied on by Mr. Carlson have no  
19 reasonable connection to the tire failure that caused Plaintiff's accident. Defendants rely on  
20 this statement by the Supreme Court:

21 [N]othing in either *Daubert* or the Federal Rules of Evidence requires a district  
22 court to admit opinion evidence which is connected to existing data only by the  
23 *ipse dixit* of the expert. A court may conclude that there is simply too great an  
analytical gap between the data and the opinion proffered.

24 *General Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997).

25 Although somewhat less vigorously than their attack on Mr. Carlson's qualifications,  
26 Defendants attack the reliability of Mr. Carlson's opinions. They assert that Mr. Carlson  
27 identifies little or no basis for his opinion regarding defects in the tire's manufacture or  
28 design. Mr. Carlson's expert report, Defendants contend, simply offers his opinion about tire

1 design and manufacturing generally and then references different tires before offering his  
2 conclusions about the subject tire. “Carlson makes no effort to tie in any way materials and  
3 information related to other tires to the specific tire at issue in this case.” Dkt. #43 at 10.  
4 “Carlson cannot identify any scientific or other legitimate support for his opinions, nor can  
5 he describe a logical process by which he arrived at his opinions, which are untested, without  
6 peer support or acceptance, and contradicted by other available evidence.” *Id.* at 11.

7 In making these assertions, Defendants do not submit their own expert reports  
8 criticizing Mr. Carlson’s analysis. Nor do Defendants identify specific studies or evidence  
9 that contradict Mr. Carlson’s assertions. The Court has read Mr. Carlson’s expert report with  
10 care. Although the report is prolix and somewhat confusing, the Court finds in it sufficient  
11 support for five of the six opinions expressed by Mr. Carlson.

12 First, Mr. Carlson opines that the subject tire failed, after low service mileage and  
13 during its original tread life, because of a complete separation of the tread and upper steel  
14 belt structure from the tire carcass. “This separation failure started as a crack at the edge of  
15 the number two belt and propagated at normal loads. A properly designed and manufactured  
16 tire should not fail by tread and outer belt separation during its normal life.” Dkt. #44-2 at  
17 16. This opinion is supported by Mr. Carlson’s examination of the tire itself. According to  
18 Mr. Carlson, the examination revealed that the tire had failed by a separated tread and outer  
19 belt over 100% of its circumference. *Id.* at 3. Mr. Carlson observed “chaff and polish around  
20 both belt edges indicating a relatively long-term fatigue failure.” *Id.* Mr. Carlson explains  
21 the three stages in which tires fail by separation. *Id.* at 7. He notes that previous failures of  
22 this kind of tire have occurred primarily through separation of the rubber and rubber  
23 interface, as occurred in this case. *Id.* at 8. He cites to five investigations into separation  
24 problems with Firestone tires, and concludes that the problems found by these studies were  
25 reflected in the tire at issue in this case. *Id.* at 12. The five opinions that follow are  
26 presented to explain the specific defects that led to the separation.

27 Second, Mr. Carlson opines that the tire was defective in design because it lacked  
28 adequate fatigue strength and resistance to crack propagation and age deterioration. *Id.* at 16.

1 Mr. Carlson supports this opinion by noting that his inspection of the tire in question revealed  
2 “a relatively long-term fatigue failure.” *Id.* at 3. Mr. Carlson observed that portions of the  
3 tire were excessively aged. *Id.* He explains that aging or deterioration of tires can be  
4 reduced by additives which reduce tire degradation, by good inner liner materials, and by  
5 designs which minimize the internal running temperatures of tires. *Id.* at 6, 9. He notes that  
6 separations like the one in this case primarily result from fatigue failure. *Id.* at 7. He cites  
7 two investigations of Firestone tires – the Ford Root Cause Analysis Report and the DOT  
8 Engineering Analysis – which noted that Firestone tires like the one in question lacked  
9 sufficient endurance strength. *Id.* at 12. He concludes from these reports and his general  
10 experience that “[t]he Firestone rubbers age faster than other comparable tires. Another way  
11 of saying this is that the material’s fatigue strength decreases because of accelerated aging.  
12 This aging is caused in part by the high operating temperatures and lack of sufficient anti-  
13 degradents additives in the rubber.” *Id.*

14 Third, Mr. Carlson opines that the tire in question was defective in design because it  
15 had an “inadequate wedge.” *Id.* at 16. Mr. Carlson explains that an extra layer of rubber is  
16 laid near the edges of steel belts contained within tires to compensate for the thinning of  
17 rubber resulting from cutting the belts and to provide more adhesion at the belt edges and  
18 reduce intra-ply stress. These extra layers of rubber are called insulators or wedges. *Id.* at  
19 6. Mr. Carlson explains the history of Firestone’s use of wedges, and concludes that “[t]he  
20 wedging in the Firestone tires was inadequate for this type of design and was one-half to one-  
21 third the size of competitor’s tires.” *Id.* at 13. Mr. Carlson further notes that the placement  
22 of wedges in Firestone tires is often erratic, but he cites no basis for concluding that  
23 placement of wedges was erratic in the tire at issue in this case. Mr. Carlson cites the Ford  
24 Root Cause Analysis Report and the DOT Engineering Analysis as concluding that the kind  
25 of Firestone tire in question lacked an adequate wedge. *Id.* at 12.

26 Fourth, Mr. Carlson opines that the tire was inadequately tested. Mr. Carlson  
27 describes the testing done by Firestone in development of the kind of tire at issue in this case,  
28 noting that Firestone relied on experience rather than full testing. He cites to the deposition

1 and report of a Dr. Govindjee in support of this testing history. *Id.* at 14. Mr. Carlson further  
2 asserts that Firestone did not test these tires to the end of their wear life. He asserts that the  
3 tire carcass should be tested to at least 50% more than the tread life of the tire, and asserts  
4 that Firestone failed to do so. *Id.* at 14.

5 Fifth, Mr. Carlson opines that the inner liner of the tire was too thin. He explains that  
6 the inner liner is the “tube” of a tubeless tire. It is made of special rubber that is relatively  
7 impermeable to gaseous diffusion. The inner liner not only keeps the tire from deflating, but  
8 can also extend the life of the tire by reducing the migration of oxygen and moisture into the  
9 internal tire structure. *Id.* at 6-7. The inner liner, he concludes, therefore contributes to the  
10 strength and life of the tire. Mr. Carlson notes that his inspection of the tire in question  
11 revealed that it had a thin inner liner. *Id.* at 3.

12 Sixth, Mr. Carlson opines that the tire was defective in design because it did not  
13 include nylon cap plies. *Id.* at 16. Mr. Carlson’s support for this opinion is set forth entirely  
14 on page 13 of his report. Mr. Carlson cites to a number of sources for his opinion, and  
15 provides reference numbers for those sources, but none of the sources is identified in the  
16 report. For example, Mr. Carlson cites to reference numbers 31, 39, 46, 47, 48, 49, and 50  
17 (*id.* at 13), but his references list includes only 26 entries. *Id.* at 17-18. Thus, Mr. Carlson’s  
18 report fails to identify the sources upon which he is relying for his opinion that nylon cap  
19 plies prevent tire separation.

20 The Court concludes that Mr. Carlson first five opinions are sufficiently supported to  
21 pass muster under Rule 702. Carlson has explained the basis for his opinions, cited the  
22 sources on which he relies, and reported the results of his personal inspection of the tire.  
23 Defendants obviously disagree with his opinions and consider them unfounded, but this is  
24 not a basis for excluding them from evidence. Defendants will be free to cross-examine  
25 Mr. Carlson fully on the perceived errors in his opinion.

26 Mr. Carlson has not, however, provided a sufficient basis for his sixth opinion. The  
27 sources upon which he relies are not identified in his report, and Mr. Carlson’s testimony at  
28 trial will be strictly limited to his report. Mr. Carlson therefore will not be permitted to opine

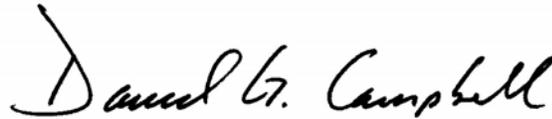
1 that nylon cap plies should have been incorporated into the design of the tire.

2 Because the opinions one through five go directly to the cause of the tire failure in this  
3 case, the Court concludes that Plaintiff will be able to present a prima facie case of  
4 negligence and strict liability. The Court will deny Defendants' motion for summary  
5 judgment with respect to these claims.

6 **IT IS ORDERED:**

- 7 1. Defendant Bridgestone Firestone North American Tire LLC's motion for  
8 summary judgment (Dkt. #43) is **granted** with respect to Plaintiff's warranty  
9 claims (counts three and four) but **denied** with respect to Plaintiff's strict  
10 liability and negligence claims (counts one, two, and five).
- 11 2. The Court will set a Final Pretrial Conference by separate order.

12 DATED this 5th day of December, 2008.

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David G. Campbell  
United States District Judge