IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

CANRIG DRILLING TECHNOLOGY LTD., Plaintiff,	§	
v.	§	CIVIL ACTION NO. H-15-0656
TRINIDAD DRILLING L.P., Defendant.	§	

MEMORANDUM AND ORDER

This patent case is before the Court on the Motion for Partial Summary Judgment that Trinidad Drilling's Alternative Products Do Not Infringe ("Alternative Products Motion") [Doc. # 72] filed by Defendant Trinidad Drilling, L.P. ("Trinidad"), to which Plaintiff Canrig Drilling Technology Ltd. ("Canrig") filed a Response [Doc. # 82], and Trinidad filed a Reply [Doc. # 91]. Also pending is Trinidad's Motion for Summary Judgment that the Accused Products Do Not Infringe the Asserted Claims ("Non-infringement Motion") [Doc. # 73], to which Canrig filed an Opposition [Doc. # 81], and Trinidad filed a Reply [Doc. # 92].[1]

[1] Also pending is Canrig's Motion for Partial Summary Judgment Regarding Intervening Rights [Doc. # 69]. Trinidad filed a Response [Doc. # 85], noting that it is not pursuing an intervening-rights defense in this case. Canrig did not file a reply. The Motion for Partial Summary Judgment Regarding Intervening Rights is denied as moot.

The case is also before the Court on Trinidad's Motion to Exclude Certain Testimony of Plaintiff's Expert Keith Womer ("Womer Motion") [Doc. # 71], to which Canrig filed a Response [Doc. # 83], and Trinidad filed a Reply [Doc. # 94]. Also, Canrig filed a Motion to Strike or Exclude Certain Opinions of Arthur Zatarain ("Zatarain Motion") [Doc. # 75], to which Trinidad filed a Response [Doc. # 86], and Canrig filed a Reply [Doc. # 88]. Canrig also filed a Motion to Exclude Certain Testimony of Thomas Britven ("Britven Motion") [Doc. # 77], to which Trinidad filed a Response [Doc. # 84], and Canrig filed a Reply [Doc. # 93].

The Court has carefully reviewed the record in this case, including all briefing and exhibits submitted by the parties in connection with the pending motions. Based on that review, and the application of relevant legal authorities, the Court issues the following rulings.

I. BACKGROUND

Canrig and Trinidad each manufacture oil and gas drilling equipment. Canrig is the owner of reissued United States Patents No. RE44,956 ("the '956 Patent") and No. RE44,973 ("the '973 Patent") (collectively, the "Patents-in-Suit"). Canrig alleges that Trinidad infringes claims in these two patents.

Originally, oil rig drilling was exclusively vertical. Later, in order to reach oil and gas reserves that were inaccessible through vertical drilling, apparatus and

methods were developed to allow directional drilling. Unlike vertical drilling, directional drilling presents two significant challenges: (1) accurately steering the drilling path of the well and (2) overcoming friction inherent in the directional drilling process.

In directional drilling, a bend in the motor assembly is added just above the drill bit. The rig operators "steer" the drilling by rotating the drill string (which is a series of heavy, steel pipes connected together) to change the direction the bend is pointing, also known as the "toolface orientation." Setting and maintaining "toolface orientation" is necessary in order to steer the drilling path accurately. Previously, the driller needed to rotate the drill pipe manually, count the number of rotations, and then stop the rotation when he believed the toolface orientation was correct. This method lacked accuracy, in part because it was monotonous and subject to human error. Additionally, it involved a significant amount of guess work by the driller to reorient the toolface. Drillers used their experience to estimate the number of rotations that needed to be made at the surface in order to turn the downhole motor assembly the desired amount for accurate toolface orientation. When the driller made the estimated number of rotations, he would manually stop the rotation of the drill string, measure the toolface orientation, and repeat as many times as needed to achieve the correct orientation.

The second challenge in directional drilling is overcoming friction between the lower surface of the drill string and the bottom of the wellbore. This friction can cause the drill string to stick to the bottom of the well and impede the advance of the drill bit. By twisting the drill string back and forth (referred to as oscillation), a driller can reduce the amount of sticking caused by friction. The driller is required to rotate the drill string enough to eliminate sticking but not so much that it changes the direction of the drilling.

Claims 1 and 4 of the ’973 Patent describe a system and method for rotating a drill string to a predetermined angle. Claim 2 of the ’973 Patent and Claim 7 of the ’956 Patent describe a system and method for oscillating the drill string between predetermined angles for the purpose of reducing friction. Canrig asserts that its patented technology eliminates the guess work previously inherent in directional drilling. Canrig asserts that its patented method of rotating or oscillating the drill string to a predetermined angle enables drillers to control the rotation of the drill string instantly and automatically while drilling, increasing the accuracy of the directional drilling process. Canrig filed this lawsuit, alleging that Trinidad is infringing Claims 1, 2, and 4 of the ’973 Patent and Claim 7 of the ’956 Patent.

Following the completion of discovery, the parties filed the pending motions. Each motion has been fully briefed and is now ripe for decision.

II. MOTIONS FOR SUMMARY JUDGMENT

A. Applicable Legal Standards

Summary Judgment.– Rule 56 of the Federal Rules of Civil Procedure mandates the entry of summary judgment, after adequate time for discovery and upon motion, against a party who fails to make a sufficient showing of the existence of an element essential to the party's case, and on which that party will bear the burden at trial. *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). "When evaluating a motion for summary judgment, the court views the record evidence through the prism of the evidentiary standard of proof that would pertain at a trial on the merits." *SRAM Corp. v. AD-II Engineering, Inc.*, 465 F.3d 1351, 1357 (Fed. Cir. 2006). Summary judgment on infringement is appropriate only if there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. *See Ultimatepointer, L.L.C. v. Nintendo Co., Ltd.*, 816 F.3d 816, 824 (Fed. Cir. 2016). The infringement analysis at the summary judgment stage requires the Court to compare the patent claims as construed with the accused device. *See Convolve, Inc. v. Compaq Computer Corp.*, 812 F.3d 1313, 1317 (Fed. Cir. 2016).

Infringement.– "[W]hoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States . . . infringes the patent." 35 U.S.C. § 271(a); *Lexmark Int'l, Inc. v. Impression Prods., Inc.*, 816 F.3d 721, 726

(Fed. Cir. 2016). "Patent infringement requires a two-step analysis." *Grober v. Mako Prods., Inc.*, 686 F.3d 1335, 1344 (Fed. Cir. 2012). In the first step, the Court construes the asserted claim terms. *See id.* The second step, a "comparison of the claims to the accused device, is a question of fact, and requires a determination that every claim limitation or its equivalent be found in the accused device." *Planet Bingo, LLC v. GameTech Int'l, Inc.*, 472 F.3d 1338, 1343 (Fed. Cir. 2006). The comparison is only to the patent claims, not to any specific embodiment in the patent specification or to the patent holder's commercial embodiment. *See Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1347 (Fed. Cir. 2003).

B. Alternative Products Motion

The issue of whether there were available, acceptable, non-infringing alternatives to an allegedly infringing product is a factor in determining damages for infringement. *See Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1393 (Fed. Cir. 2003). The proffered alternatives must have been available, acceptable, and non-infringing. *See, e.g., Wechsler v. Macke Int'l Trade, Inc.*, 486 F.3d 1286, 1298 (Fed. Cir. 2007); *Laser Dynamics, Inc. v. Quanta Computer, Inc.*, 2011 WL 197869, *3 (E.D. Tex. Jan. 20, 2011). Trinidad seeks summary judgment only on the "non-infringing" element.

During the course of this litigation, Trinidad developed alternative products that it argues are non-infringing. The Patents-in-Suit claim methods and equipment for automatically rotating and oscillating the drill string to "predetermined angles." The claim term "predetermined angle" has been construed, by stipulation of the parties with the agreement of this Court, to mean "an angle having a size that is determined prior to any movement of the drill string through that angle." *See* Stipulation on Claim Construction [Doc. # 42], p. 1; Order on Claim Construction [Doc. # 44], p. 1.

In the invention claimed by the Patents-in-Suit, a computer automatically rotates the drill string in a forward or reverse direction toward a predetermined angle. Trinidad has developed four versions of a computer software product that controls the rotation of the drill string based on an angle calculated after the drill string begins to move through the angle.

The four versions are referred to as AXD-1, AXD-2, AXD-3, and AXD-4. In AXD-1, when the drill string has rotated half-way to the user-entered setpoint, a new setpoint ("Calculated Setpoint") is calculated based on the measurement of the real-time torque applied to the drill string. The ultimate size of the angle of rotation is calculated while the drill string is rotating through the angle. The Calculated Setpoint will fall within one of two "Setpoint Zones" – one for the forward rotation and one for the reverse rotation. AXD-2 operates in the same manner, except the two "Setpoint

Zones" are separated by a "Dead Zone" where the rotation cannot stop. AXD-3 is a variation of AXD-2 that uses a random number rather than the real-time torque measurement to calculate the Calculated Setpoint. Canrig does not dispute that AXD-3 is non-infringing. AXD-4 is a further variation, with differences that the parties agree are "not relevant to the question at issue in this motion." AXD-3 and AXD-4 are theoretical variations that have not been developed or used to rotate drill strings. It is uncontested that if AXD-1 and AXD-2 are non-infringing, AXD-4 is similarly non-infringing.

Canrig argues that Trinidad has failed to show as a matter of law that alternative products AXD-1 and AXD-2 are non-infringing. Canrig argues that if the measured torque does not change from one rotation cycle to the next, then the Calculated Setpoint would remain the same and, therefore, be "predetermined." The relevant inquiry is not, however, whether the Calculated Setpoint remains the same for consecutive rotation cycles, but when the Calculated Setpoint – the value of the angle of rotation – is established. In this case, the evidence is uncontroverted that the Calculated Setpoint is determined after the drill string begins to move through the angle. As a result, the angle is not "predetermined," and AXD-1 and AXD-2 are non-infringing because they do not satisfy the "predetermined angle" claim limitation.

Canrig argues that a district judge in the Eastern District of Texas in a different lawsuit involving the same patent claims stated:

> if the drill string is oscillating at 180 degrees and the computer determines a new on-the-fly angle of 160 degrees . . . the 160 degree value is not predetermined with respect to that single 160 degree oscillation. However, the 160 degree value is predetermined with respect to the next oscillation cycle (assuming no other immediate change from the computer).

Memorandum Opinion in *Canrig Drilling Tech. Ltd. v. Omron Oilfield and Marine, Inc.*, Exh. B to Response [Doc. # 82], p. 8. In that case, the issue was whether the claim limitation required that the angle be entered by an operator rather than generated by a computer. *See id.* at 7. The district court held that the claims are "sufficiently broad enough to encompass both angles entered by an operator and generated by a computer." *Id.* The district court agreed, however, that "the angle must be determined before the drill string begins to move through that angle." *Id.* The district court distinguished between an "unknown angle" and a "predetermined angle." *See id.* at 8. In this case, AXD-1 and AXD-2 cause the computer to recalculate the angle during each rotation. To use the Eastern District court's example, the computer does not recalculate to a 160 degree angle and then maintain that calculation until another change is required. Instead, again referring to the Eastern District court's example, there is an "immediate change from the computer" as it conducts a new calculation to establish a new angle. It is irrelevant that this newly-calculated angle may be the same

for more than one rotation. It is not "determined" until the calculation is made by the computer, and it is uncontroverted that the computer makes the calculation after the drill string begins to move through the angle. Canrig's reliance on the Eastern District's decision in *Omron* is unpersuasive.

Trinidad is entitled to summary judgment that AXD-1 and AXD-2 are non-infringing alternatives. Because the Court has found that the undisputed evidence demonstrates that AXD-1 and AXD-2 are non-infringing, there is no dispute that AXD-3 and AXD-4 are likewise non-infringing. Trinidad remains obligated to prove that these non-infringing alternatives were also acceptable and available.

C. Non-Infringement Motion

The asserted claims of the Patents-in-Suit each require a sensor that detects or monitors a drill string. Unlike the asserted claims, Claim 3 of the '973 Patent, which is not an asserted claim, requires "a first sensor adapted to detect the rotation of said motor at the surface, wherein the first sensor is at the surface."

Trinidad argues that its accused device, the Axio-Driller, does not infringe the asserted claims because it uses a sensor that detects or monitors the rotation of the ***motor***, not of the drill string. Specifically, Axio-Driller uses a sensor located on the motor that senses the rotation of the motor, then uses the information from the sensor together with other information to compute the rotational position of the drill string.

Claims 1 and 2 of the ’973 Patent require “a sensor adapted to detect” the rotation or the rotational position of the drill string. Claim 4 of the ’973 Patent and Claim 7 of the ’956 Patent require “monitoring” the rotational position or the rotation “of a drill string” “with a sensor.” Canrig argues that the claim does not include a limitation that the sensor detect or monitor the drill string directly. Although this is accurate, the claim language clearly requires that it is the sensor that detects or monitors the rotation of the drill string. Therefore, a product that detects or monitors something other than the drill string and uses that information to calculate or otherwise determine the rotation of the drill string would not satisfy this claim limitation.

Canrig asserts, with supporting evidence, that Trinidad’s accused product uses a sensor to monitor the rotation of both the motor and the drill string. Canrig points out that the sensor is located on the motor, which is connected to the drill string through a gear box. As a result, the sensor on the motor is in “rotational engagement” with the drill string. The rotation of the drill string is then displayed on the Axio-Driller’s user interface.

It is undisputed that the Axio-Driller’s sensor detects and monitors the motor. Canrig has presented evidence, however, that raises a genuine issue of material fact regarding whether the Axio-Driller’s sensor, although located on the motor, also

detects and monitors the drill string as well as the motor. As a result, summary judgment is inappropriate on the infringement issue.

III. MOTIONS TO EXCLUDE EXPERT OPINIONS

A. Applicable Legal Standards

Witnesses who are qualified by "knowledge, skill, experience, training or education" may present opinion testimony to the jury. FED. R. EVID. 702; *see, e.g.*, *Whole Woman's Health v. Hellerstedt*, __ U.S. __, 136 S. Ct. 2292, 2316 (2016); *Moore v. Ashland Chem., Inc.*, 151 F.3d 269, 276 (5th Cir. 1998) *(en banc*); *Huss v. Gayden*, 571 F.3d 442, 452 (5th Cir. 2009).[2] To be admissible, an expert's proffered testimony must be both relevant and reliable. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 591-92 (1993); *Carlson v. Bioremedi Therapeutic Sys., Inc.*, 822 F.3d 194, 199 (5th Cir. 2016).

The expert testimony must be relevant and the expert's proposed opinion must be one that would assist the trier of fact to understand or decide a fact in issue. *See Weiser-Brown Operating Co. v. St. Paul Surplus Lines Ins. Co.*, 801 F.3d 512, 529 (5th Cir. 2015); *Bocanegra v. Vicar Servs., Inc.*, 320 F.3d 581, 584 (5th Cir. 2003) (citing *Daubert*, 509 U.S. at 591-92). "A party seeking to introduce expert testimony

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[2] In a patent case, the district court evaluates whether to exclude expert testimony under the law of the regional circuit. *See Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316, 1323 (Fed. Cir. 2016).

must show (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case." *Huss*, 571 F.3d at 452 (citing *Smith v. Goodyear Tire & Rubber Co.*, 495 F.3d 224, 227 (5th Cir. 2007)); *see also Carlson*, 822 F.3d at 199.

"Reliability" requires that the proponent of the expert testimony must present some objective, independent validation of the expert's methodology. *See Brown v. Illinois Cent. R. Co.*, 705 F.3d 531, 536 (5th Cir. 2013). The objective of the Court's gatekeeper role is to ensure that an expert "employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999); *Hodges v. Mack Trucks Inc.*, 474 F.3d 188, 194 (5th Cir. 2006).

The Court's gatekeeping role is no substitute, however, for the adversarial process. *See Pipitone v. Biomatrix, Inc.*, 288 F.3d 239, 250 (5th Cir. 2002). "Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." *Daubert*, 509 U.S. at 596; *MM Steel, L.P. v. JSW Steel (USA) Inc.*, 806 F.3d 835, 852 (5th Cir. 2015).

B. Womer Motion

Trinidad asserts that the Patents-in-Suit are invalid as obvious. Keith Womer is Canrig's expert on non-obviousness. Specifically, Womer opines that the Patents-in-Suit were not obvious because Canrig's ROCKit software product has been a commercial success, met an unmet need for the product, was copied by others, and received high praise. Trinidad moves to exclude Womer's opinions regarding non-obviousness because there is no evidence that ROCKit embodies the Patents-in-Suit. *See* Womer Motion, p. 1.

In his Expert Report, Womer identifies, by general description in paragraph 25 and by detailed list in Appendix 2, the documents and other information on which he relied in reaching his opinion. *See* Womer Expert Report, Exh. U to Canrig's Response [Doc. # 83], ¶ 25 and Appendix 2. For example, he reviewed the Patents-in-Suit and their prosecution histories, deposition testimony and exhibits, and documents produced in discovery in this case. *See id.*, ¶ 25. Additionally, he states that he has spoken with the inventors and has inspected the ROCKit embodiment of the Patents-in-Suit. *See id.*

Womer is entitled to base his opinion regarding non-obviousness, and the underlying assumption that ROCKit embodies the Patents-in-Suit, on information he identified in his Expert Report, even if he fails to set forth a detailed explanation on

this subject. *See, e.g., Daubert*, 509 U.S. at 592; *Cromwell v. Wal-Mart Stores, Inc.*, 46 F. App'x 733, *2 (5th Cir. Aug. 9, 2002); *In the Matter of M&M Wireline & Offshore Servs., LLC*, 2016 WL 4681196, *3 (E.D. La. Sept. 7, 2016). Womer is "permitted to assume the underlying facts" on which he bases his opinion. *Cromwell*, 46 F. App'x at *2 (citing *Daubert*, 509 U.S. at 592). Trinidad had the opportunity to question Womer during his deposition if there was any dispute regarding the factual basis for Womer's assumption that Canrig's ROCKit product embodies the Patent-in-Suit, but Trinidad failed to ask any questions on this issue. It will be Canrig's obligation at trial to present evidence to support Womer's assumption that the ROCKit software product embodies the Patents-in-Suit. Trinidad will have the opportunity to cross-examine Womer regarding the basis for his assumption, and the jury will decide whether the assumptions are supported by credible evidence. The Womer Motion is denied.

C. Zatarain Motion

One of Trinidad's expert witnesses, Arthur Zatarain, offers opinions regarding proper claim construction and regarding inequitable conduct on the part of Canrig. In the Zatarain Motion, Canrig seeks to exclude these opinions. Specifically, Canrig argues that Zatarain should not be permitted to offer opinions on claim construction because that is an issue for the Court and not for the jury. Canrig argues also that the

opinions regarding inequitable conduct should be excluded because Trinidad has not asserted inequitable conduct as an affirmative defense in this case.

Canrig is correct that expert opinion on claim construction is inadmissible. *See CytoLogix Corp. v. Ventana Med. Sys., Inc.*, 424 F.3d 1168, 1172 (Fed. Cir. 2005). "The risk of confusing the jury is high when experts opine on claim construction before the jury," even where there is agreement by the parties to present such expert testimony and where the district court instructs the jury that the district court's claim construction governs. *See id.* Therefore, Zatarain will not be permitted to present to the jury any opinions regarding proper claim construction.

Canrig is equally correct that opinions regarding inequitable conduct are inadmissible because they are not relevant to any issue in the case. Indeed, Trinidad agrees that Zatarain's opinions that relate specifically to inequitable conduct are inadmissible and stricken. Trinidad argues, however, that some of the statements in the section of Zatarain's expert report entitled "inequitable conduct" relate also to issues other than inequitable conduct and would, therefore, be admissible.

Under this Court's general practice, written expert reports are not admitted into evidence and are not provided to the jury. Instead, the expert's opinions are presented through the expert's testimony, either live at trial or through deposition. In this case, if Canrig presents evidence that the Patent and Trademark Office ("PTO") issued and

reissued the Patents-in-Suit, then Zatarain can testify regarding his opinion that certain relevant prior art was not before the PTO when it made those decisions. Zatarain cannot, however, testify that Canrig failed to disclose the prior art or otherwise characterize the reason the prior art was not before the PTO. Additionally, Zatarain may not speculate regarding whether the PTO would have reached a different result if all relevant prior art references were before it. The Zatarain Motion is granted in part and denied in part as set forth herein.

D. Britven Motion

Thomas Britven is Trinidad's expert on damages. Britven notes that Canrig is seeking only reasonable royalty damages, not lost profits. Britven opines that the appropriate royalty is a one-time royalty in the amount of $120,000 if Trinidad's available and acceptable alternatives are found to be non-infringing, or $500,000 if those alternatives are not found to be non-infringing. To arrive at this opinion, Britven conducted quantitative analyses including a cost approach, a market approach, and an income approach. Canrig objects to four different calculations presented by Britven in support of his analysis. Three of the calculations relate to Britven's use of the analytical approach. The fourth relates to Britven's analysis based on a license agreement between Canrig and Shell International Exploration and Production, Inc. ("Shell") involving technology referred to as "Z-Torque."

Analytical Approach.– When using the analytical approach or method for calculating a reasonable royalty, that royalty is computed by subtracting the alleged infringer's usual or acceptable net profit from its anticipated net profit realized from sales of infringing devices. *See TWM Mfg. Co. v. Dura Corp*., 789 F.2d 895, 899 (Fed. Cir. 1986). The approach focuses on the alleged infringer's projected profits from the infringing product. *See Energy Transp. Group, Inc. v. William Demant Holding A/S*, 697 F.3d 1342, 1357 (Fed. Cir. 2012).

In one of his calculations using the analytical method, Britven compared the profitability of Trinidad rigs equipped with the Axio-Driller software for the time period July 2009 until they received Axio-Driller, with the time period after they received Axio-Driller. In another calculation, Britven compared the profitability of two similar Trinidad rigs for an identical time period during which one rig had Axio-Driller and the second rig did not. In a third calculation, Britven studied the same two rigs but rather than compare their profitability, he compared their drilling performance. These calculations resulted in a zero or negative value added from use of the Axio-Driller product.

Canrig objects to these calculations because, Canrig argues, the profitability calculations do not account for other variables that may have affected profitability, and the drilling performance calculation includes large periods of time when drilling

occurs without the Axio-Driller being used. The arguments, while perhaps valid, do not render Britven's calculations inadmissible. Instead, Canrig's arguments are relevant to the appropriate weight to which Britven's opinions may be entitled – a matter to be addressed through cross-examination and closing argument. Britven notes specifically that several factors can contribute to the profitability of a drilling rig and, as a result, it may be difficult "to isolate the specific contributions that specific features have on profitability." *See* Britven Report, Exh. A to Britven Motion, ¶ 248. He concedes that the incremental profitability from using the Axio-Driller cannot be determined with "absolute precision," but notes that he has used the analytical approach (in a manner approved by the Federal Circuit) in combination with other analyses to reach his opinions about the amount of a reasonable royalty. Britven's opinions, and the analytical approach bases for them, are admissible under *Daubert* and its progeny.

Z-Torque License.– Britven conducted a market-approach analysis in which he considered four settlement and license agreements between Canrig and alleged infringers. Canrig does not object to Britven's use of the market-approach analysis, or to his consideration of three of the four agreements, including a 2009 License Agreement between Canrig and Shell, referred to as the "Soft Torque Agreement." Canrig objects only to Britven's consideration of a 2015 License Agreement between

Canrig and Shell, referred to as the "Z-Torque Agreement." Canrig argues that "Britven has no basis for his assumption that Z-Torque is technically comparable" to Canrig's patented invention. *See* Britven Motion, p. 16.

Canrig's expert, Daniel Lindsay, states in his Expert Report that he has reviewed and considered the Soft Torque Agreement "and ***a related*** Z-Torque Rotary License Agreement . . .." *See* Lindsay Report, Exh. B to Response [Doc. # 84], ¶ 84 (emphasis added). Lindsay states that "Shell subsequently improved its Soft Torque [technology] with a newer version called Z-Torque." *See id.*, ¶ 90. Although Lindsay states that the Soft Torque technology and Canrig's ROCKit technology "are not considered analogous inventions," *see id.*, ¶ 84, Lindsay discusses the two "related" agreements in reaching his opinions.

Britven assumes that the Soft Torque technology (considered by Britven without objection) and the Z-Torque technology are related because Shell made modifications to the Soft Torque product, and the modified product is called "Z-Torque." *See* Britven Report, ¶ 193. Britven assumes also, for purposes of his damages opinion, that the Z-Torque Agreement is related to the Patent-in-Suit. As noted above in connection with the Womer Motion, Britven is entitled to assume underlying facts. It will be Trinidad's obligation to present evidence at trial to prove those underlying assumptions, subject to Canrig's cross-examination. The jury can

evaluate the validity of the underlying assumptions and the weight to which Britven's ultimate conclusions are entitled. Britven's inclusion of the Z-Torque Agreement as a factor in his market-approach analysis does not render his damages opinions unreliable or otherwise inadmissible.

Conclusion on Britven Motion.– Canrig's objections to certain calculations and assumptions used by Britven to reach his opinion regarding a reasonable royalty raise issues that may affect the weight to which those opinions are entitled. The objections do not, however, provide a basis for excluding Britven's opinions or the bases therefore.

IV. CONCLUSION AND ORDER

For the reasons stated herein, it is hereby

ORDERED that Canrig's Motion for Partial Summary Judgment Regrading Intervening Rights [Doc. # 69] is **DENIED AS MOOT**. It is further

ORDERED that Trinidad's Motion for Partial Summary Judgment that Trinidad Drilling's Alternative Products Do Not Infringe [Doc. # 72] is **GRANTED**. It is further

ORDERED that Trinidad's Motion for Summary Judgment that the Accused Products Do Not Infringe the Asserted Claims [Doc. # 73] is **DENIED**. It is further

ORDERED that Trinidad's Motion to Exclude Certain Testimony of Plaintiff's Expert Keith Womer [Doc. # 71] is **DENIED**. It is further

ORDERED that Canrig's Motion to Strike or Exclude Certain Opinions of Arthur Zatarain [Doc. # 75] is **GRANTED IN PART AND DENIED IN PART**. It is further

ORDERED that Canrig's Motion to Exclude Certain Testimony of Thomas Britven [Doc. # 77] is **DENIED**. It is further

ORDERED that the deadline for the parties' Joint Pretrial Order remains **January 9, 2017**, and docket call is rescheduled to **10:00 a.m. on January 20, 2017**.

SIGNED at Houston, Texas, this 12th day of **December, 2016.**

NANCY F. ATLAS
SENIOR UNITED STATES DISTRICT JUDGE