

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION**

WESTERNGECO L.L.C.,

Plaintiff,

v.

**ION GEOPHYSICAL CORPORATION,
et al.**

Defendants.

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Case No. 4:09-cv-1827

MEMORANDUM AND ORDER

Pending before the Court are the following motions:

1. ION's Partial Motion to Dismiss for Lack of Subject Matter Jurisdiction (Doc. No. 565);
2. ION's Rule 59 Motion for New Trial on Invalidity Under 35 U.S.C. §§ 102 and 103 (Doc. No. 550);
3. ION's Request for Findings and Conclusions on Enablement and, Alternatively, Motion for New Trial (Doc. No. 552);
4. ION's Renewed Motion for Judgment as a Matter of Law and Alternative Motion for New Trial Regarding Non-Infringement (Doc. No. 556);
5. ION's Motion for New Trial on Infringement Under 35 U.S.C. § 271(f)(2) (Doc. No. 557);
6. ION's Motion for JMOL and New Trial Due to Incorrect Claim Construction (Doc. No. 561);
7. ION's Motion for Entry of Findings and Conclusions of No Willful Infringement, Renewed Motion for Judgment as a Matter of Law of No Willful Infringement, and Alternative Motion for New Trial (Doc. No. 559);
8. WesternGeco's Motion for Willfulness and Enhanced Damages (Doc. No. 560);
9. WesternGeco's Motion to Find this Case Exceptional Under Section 285 and for Attorneys' Fees (Doc. No. 554);

10. ION's Motion for JMOL, Motion for New Trial on Damages alternatively Motion for Remittitur (Doc. No. 562);
11. WesternGeco's Motion for Prejudgment Interest and Post-Discovery Damages (Doc. No. 553);
12. WesternGeco's Motion for Costs (Doc. No. 555);
13. ION's Motion to Compel Production of Documents From WesternGeco (Doc. No. 609); and
14. WesternGeco's Motion for a Permanent Injunction or, in the Alternative, an Ongoing Royalty (Doc. No. 558).

Upon considering the Motions, all responses thereto, the applicable law, and oral arguments, the Court finds that:

1. ION's Partial Motion to Dismiss for Lack of Subject Matter Jurisdiction (Doc. No. 565) must be **DENIED**;
2. ION's Rule 59 Motion for New Trial on Invalidity Under 35 U.S.C. §§ 102 and 103 (Doc. No. 550) must be **DENIED**;
3. ION's Request for Findings and Conclusions on Enablement and, Alternatively, Motion for New Trial (Doc. No. 552) must be **DENIED**;
4. ION's Renewed Motion for Judgment as a Matter of Law and Alternative Motion for New Trial Regarding Non-Infringement (Doc. No. 556) must be **DENIED**;
5. ION's Motion for New Trial on Infringement Under 35 U.S.C. § 271(f)(2) (Doc. No. 557) must be **DENIED**;
6. ION's Motion for JMOL and New Trial Due to Incorrect Claim Construction (Doc. No. 561) must be **DENIED**;
7. ION's Motion for Entry of Findings and Conclusions of No Willful Infringement, Renewed Motion for Judgment as a Matter of Law of No Willful Infringement, and Alternative Motion for New Trial (Doc. No. 559) must be **GRANTED**;
8. WesternGeco's Motion for Willfulness and Enhanced Damages (Doc. No. 560) must be **DENIED**;
9. WesternGeco's Motion to Find this Case Exceptional Under Section 285 and for Attorneys' Fees (Doc. No. 554) must be **DENIED**;

10. ION's Motion for JMOL, Motion for New Trial on Damages alternatively Motion for Remittitur (Doc. No. 562) must be **DENIED**;
11. WesternGeco's Motion for Prejudgment Interest and Post-Discovery Damages (Doc. No. 553) must be **GRANTED**;
12. WesternGeco's Motion for Costs (Doc. No. 555) must be **GRANTED in part and DENIED in part**;
13. ION's Motion to Compel Production of Documents From WesternGeco (Doc. No. 609) must be **DENIED**;
14. WesternGeco's Motion for a Permanent Injunction or, in the Alternative, an Ongoing Royalty (Doc. No. 558) must be **GRANTED**.

I. BACKGROUND

This is a patent infringement case originally brought by WesternGeco L.L.C. ("Plaintiff" or "WesternGeco") against ION Geophysical Corporation ("ION"). At issue in this case is marine seismic streamer technology that is deployed behind ships. These streamers, essentially long cables, use acoustic signals and sensors to create three-dimensional maps of the subsurface of the ocean floor in order to facilitate natural resource exploration and management. For many seismic studies, greater control over the depth and lateral position of streamers is important in order to achieve optimal imagery from the signals and to maneuver around impediments such as rocks and oil rigs. WesternGeco's patents all pertain to streamer positioning devices, or devices that are used to control the position of a streamer as it is towed. At trial, WesternGeco argued that ION had infringed on four of its U.S. patents—U.S. Patent No. 7,293,520 (the "'520 Patent"); 7,162,967 (the "'967 Patent"), 7,080,607 (the "'607 Patent") ("Bittleston Patents" collectively); and U.S. Patent. No. 6,691,038 (the "'038 Patent" or "Zajac Patent").

After a three and a half week trial, the jury returned a verdict in favor of WesternGeco. (Doc. No. 536.) The jury found that ION infringed the '520 Patent, the '967 Patent, the '607 Patent, and the '038 Patent pursuant to Section 271(f)(1) & (2). The jury did not find anticipation

or non-enablement of the ‘520 Patent or the ‘967 Patent. The jury did not find anticipation, obviousness or non-enablement of the ‘607 Patent or the ‘038 Patent. The jury did find that ION willfully infringed. The jury awarded \$93.4 million in lost profits and a reasonable royalty of \$12.5 million. Both parties have now filed numerous post-trial motions. The Court will address each of the motions in turn.

II. LEGAL STANDARDS

A. Judgment as a Matter of Law (“JMOL”)

The Fifth Circuit reviews a district court’s ruling on a motion for judgment as a matter of law *de novo*. See *Cambridge Toxicology Grp., Inc. v. Exnicios*, 495 F.3d 169, 179 (5th Cir. 2007). Judgment as a matter of law is appropriate “[i]f a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue.” See Fed. R. Civ. P. 50(a)(1); *Gomez v. St. Jude Med. Daig Div. Inc.*, 442 F.3d 919, 927 (5th Cir. 2006). “The decision to grant a directed verdict . . . is not a matter of discretion, but a conclusion of law based upon a finding that there is insufficient evidence to create a fact question for the jury.” *Omnitech Int’l v. Clorox Co.*, 11 F.3d 1316, 1323 (5th Cir. 1994) (citations omitted) (internal quotation marks omitted). A legally sufficient evidentiary basis requires more than a mere scintilla of evidence. *Hollywood Fantasy Corp. v. Gabor*, 151 F.3d 203, 211 (5th Cir. 1998).

The trial court is required to consider the entire record when considering a renewed judgment as a matter of law motion. *Reeves v. Sanderson Plumbing Prod., Inc.*, 530 U.S. 133, 149–50 (2000). Therefore, a court “should consider all of the evidence—not just that evidence which supports the non-mover’s case—but in the light and with all reasonable inferences most

favorable to the party opposed to the motion.” *Goodner v. Hyundai Motor Co., Ltd.*, 650 F.3d 1034, 1040 (5th Cir. 2011).

B. Rule 59 Motion for New Trial

The district court’s ruling on a Rule 59 motion for new trial is reviewed for an abuse of discretion. *Beckham v. Louisiana Dock Co., L.L.C.*, 124 Fed.App’x. 268, 270 (5th Cir. 2005). A district court can grant a new trial under FRCP 59(a) “for any reason for which a new trial has heretofore been granted in an action at law in federal court.” A new trial should not be granted “unless, at a minimum, the verdict is against the great weight of the evidence.” *Dawson v. Wal-Mart Stores, Inc.*, 978 F.2d 205, 208 (5th Cir. 1992). The Court must again view the evidence “in a light most favorable to the jury’s verdict, and the verdict must be affirmed unless the evidence points so strongly and overwhelmingly in favor of one party that the court believes that reasonable [jurors] could not arrive at a contrary conclusion.” *Id.* “Where the jury could have reached a number of different conclusions, all of which would have sufficient support based on the evidence, the jury’s findings will be upheld.” *Id.* If an issue is raised for the first time on a motion for a new trial, the issue is waived. *Auster Oil & Gas, Inc. v. Stream*, 835 F.2d 597, 601 (5th Cir. 1988).

III. PARTIAL MOTION TO DISMISS

ION has filed a Partial Motion to Dismiss for Lack of Subject Matter Jurisdiction. (Doc. No. 565.) ION moves to dismiss for lack of subject matter jurisdiction with respect to WesternGeco’s claims that ION infringed the Bittleston Patents. ION claims that WesternGeco does not own the Bittleston Patents and therefore lacks standing to sue for infringement.

A. Legal Standard

“Standing is a constitutional requirement pursuant to Article III and it is a threshold jurisdictional issue” that may be decided on a Rule 12(b)(1) motion. *Abraxis Bioscience, Inc. v. Novainta LLC*, 625 F.3d 1359, 1363 (Fed. Cir. 2010). WesternGeco bears the burden of proving standing by a preponderance of the evidence. A case can be dismissed for lack of subject matter jurisdiction at any time. A court may consider evidence outside the pleadings when resolving a motion to dismiss for lack of subject matter jurisdiction under Rule 12(b)(1). *See Ramming v. U.S.*, 281 F.3d 158, 161 (5th Cir. 2001). Only a patent owner may have a remedy by civil action for infringement. *Paradise Creations, Inc. v. UV Sales, Inc.*, 315 F.3d 1304, 1308 (Fed. Cir. 2003). The Patent Act defines a patentee as the person to whom the patent is issued and any successors in title to the patentee. 35 U.S.C. § 100(d). Patent rights can only be assigned in writing. 35 U.S.C. § 261.

B. Chain of Title

ION argues that WesternGeco has not proved it has ownership of the Bittleston patents, and therefore, its standing to sue. WesternGeco has provided ION two types of documents, a Merger Agreement between Schlumberger Technology Corporation (“STC”) and WesternGeco and assignments from the inventors to STC, but not from the inventors to WesternGeco. ION argues that WesternGeco must possess a written chain of title from the inventors. ION further argues that the USPTO assignment records do not contain any executed assignment document from the inventors to WesternGeco. Based on these facts, ION argues that WesternGeco has not proved it is the owner of the patents.

ION has never raised this issue in a motion before and had stipulated earlier in the suit that WesternGeco did own the patents. While “[c]onsent of parties cannot give the courts of the

U.S. jurisdiction . . . the parties may admit the existence of facts which show jurisdiction, and the courts may act judicially upon such admission.” *Ry. Co. v. Ramsey*, 89 U.S. (22 Wall.) 322, 327 (1875). First, ION had stated in its Answer and Counterclaims that “[o]n information and belief, the Bittleston Patents were assigned to WesternGeco.” (Doc. No. 6 ¶ 106.) In the same Answer, ION also stated it did not know for certain whether WesternGeco owned the patents, but proceeded for three years as if WesternGeco did own them. Second, ION agreed the jury should be instructed that WesternGeco owns the patents and is entitled to collect damages. ION now attempts to assert a position that is wholly different from its position regarding patent ownership throughout this litigation.

Additionally, the Patent Office issued each of the Bittleston patents to WesternGeco as the “Assignee.” The entity to whom the Patent Office issues a patent is the presumptive owner. ION has the burden to rebut that presumption, which it has not done. Conversely, WesternGeco has presented sufficient evidence to prove its ownership of the patents. WesternGeco presented evidence at the trial that the inventors assigned their patent to STC. Then in the November 30, 2000 Technology Transfer Agreement, STC transferred and assigned the patents to WesternGeco. That agreement stated:

STC agrees to and hereby does grant, transfer and assign to [WesternGeco] with regard to the Territory all of STC’s rights, title and interest in and to the Intellectual Property in existence.”

“Intellectual Property” was defined in the agreement to include any patent rights. ION argues that an “agreement” to assign is not the same as assigning. However, the language of the agreement states clearly that STC “agrees to and hereby does grant, transfer, and assign.” The Court is satisfied that WesternGeco was assigned the rights.

ION further argues that the assignment to STC occurred in 2001. Since STC and WesternGeco merged in 2000, STC did not have the patent rights to assign and therefore the patents still belonged to STC. The Court finds this argument unconvincing. The 2001 assignments state that the inventors “acknowledge [they] have sold, assigned, transferred and conveyed” the U.S. patent rights to STC. (Doc. No. 606, Ex. 11 at WG 955146; Ex. 12 at WG 955144.) This is a confirmation of the inventors’ assignments to STC that dates back to the 1998 Cost Sharing Agreement, which states:

Ownership of the Patent Rights . . . shall be vested in the Participants in their Respective Areas. (Doc. No. 606, Ex. 10 at WG 955272.)

STC was designated the “Participant” for the “Respective Area”. Therefore, STC owned the patents when it assigned the patents to WesternGeco in 2000.

ION has proceeded throughout the years as if WesternGeco owned the patents and the record reflects that WesternGeco does own the patents by written assignment. Therefore, the Court must deny ION’s Motion to Dismiss.

IV. INVALIDITY

ION has filed a Rule 59 Motion for New Trial on Invalidity Under 35 U.S.C. §§ 102 and 103. (Doc. No. 550.) ION moves for a new trial on the basis that all the asserted patent claims but two are invalid as anticipated or obvious under 35 U.S.C. §§ 102 and 103. Specifically, ION contends that Claim 18 of the ‘520 Patent and Claim 15 of the ‘607 Patent were anticipated by U.S. Patent No. 5,790,472 (“Workman Patent”). Claim 14 of the ‘038 Patent was anticipated by International Application Publication WO 2000/20895 (the “’895 Publication”). Also, ION asserts that Claim 15 of the ‘967 Patent and Claim 15 of the ‘607 Patent were obvious based on the combination of the Workman Patent; and the International Application Publication WO 98/28636 (the “’636 Patent”) and Claim 14 of the ‘038 Patent were made obvious by the ‘895

Patent. After considering the arguments, the Court finds that the jury's verdict was reasonable and there was no indication of unfairness to warrant a new trial. This motion must be denied.

A. Anticipation

A patent is invalid as anticipated under 35 U.S.C. § 102 when “every element and limitation of the claim was previously described in a single prior art reference, either expressly or inherently, so as to place a person of ordinary skill in possession of the invention.” *Sanofi-Synthelabo v. Apotex, Inc.*, 550 F.3d 1075, 1082 (Fed. Cir. 2008). The standard for proving anticipation is clear and convincing evidence. *Id.* The prior art that ION asserts anticipates WesternGeco's patents were all considered by the United States Patent and Trademark Office (“PTO”) during prosecution, yet the PTO still granted WesternGeco the patents at issue. While not dispositive, this is further evidence the jury could have relied upon when reaching its verdict. At trial, the jury decided that WesternGeco's patents were not anticipated and ION has not met the clear and convincing evidence standard to prove otherwise.

1. Claim 18 of the ‘520 Patent

ION claims that the Workman Patent anticipated Claim 18 of the ‘520 Patent. However, the jury could reasonably find from evidence and testimony presented at trial that the Workman Patent does not teach or enable lateral steering or the “streamer positioning devices” claimed in the Bittleston Patents. The streamer positioning devices mentioned in the Workman Patent refers to depth control devices, not lateral positioning devices as used in the Bittleston patents. (Doc. No. 574 p. 7.)

Likewise, ION claims that the Workman Patent anticipates this claim because it discloses the “streamer separate mode.” The Court construed “streamer separation mode” to mean “a control mode that attempts to set and maintain the spacing between adjacent streamers” (Doc.

No. 120 p. 45.) The Workman Patent states only that a “threshold parameter” of “at least 100 meters” be maintained. (Doc. No. 583 p. 5.) This threshold parameter does not specify that a precise spacing be set and maintained between adjacent streamers. WesternGeco aptly points out that, without maintaining any space, the streamers could range from 100 meters apart to 100 miles. (Doc. No. 602 p. 3.) With this, and other evidence and testimony, the jury could reasonably find that Claim 18 of the ‘520 Patent was not anticipated.

2. Claim 15 of the ‘607 Patent

ION argues that the Workman Patent anticipates Claim 15 of the ‘607 Patent by disclosing limitation (a), (b), and (c) of the Claim. Claim 15 states:

- (a) a plurality of streamer positioning devices on or inline with each streamer,
- (b) a prediction unit adapted to predict positions of at least some of the streamer positioning devices,
- (c) a control unit adapted to use the predicted positions to calculate desired changes in positions of one or more of the streamer positioning devices.

However, at trial, ION’s expert witness, Robert Brune admitted that Claim 15 of the ‘607 patent requires lateral steering and Workman does not enable lateral steering. To anticipate, a patent must teach and enable all claim limitations. Since lateral steering is a limitation of Claim 15, it is reasonable that the jury would conclude that Claim 15 of the ‘607 Patent was not anticipated.

3. Claim 14 of the ‘038 Patent

ION argues that Claim 14 of the ‘038 Patent is anticipated based on the ‘895 Publication, which discloses all of the limitations of Claim 14. However, Mr. Brune admitted at trial that the ‘895 Publication does not disclose the 4D surveys claimed in the ‘038 Patent. The jury could weigh this evidence and testimony and conclude that Claim 14 was not anticipated.

B. Obviousness

A patent is invalid for obviousness “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(A). “Obviousness is a legal determination that may be submitted to a jury with proper instruction.” *In re Hayes Microcomputer Products, Inc. Patent Litigation*, 982 F.2d 1527, 1539 (Fed. Cir. 1992). ION expressly agreed to submit the question of obviousness to the jury in the form of the special verdict form. (Doc. No. 536.) ION has not met its burden to overturn the jury’s finding of nonobviousness.

1. Claim 15 of the ‘967 Patent

ION argues that Claim 15 of the ‘967 Patent is obvious based on the combination of the Workman Patent and the ‘636 Publication, which are prior art. Claim 15 reads:

An array of seismic streamers towed by a towing vessel comprising:

- (a) a plurality of streamer positioning devices on or inline with each streamer, at least one of the streamer positioning devices having a wing;
- (b) global control system transmitting location information to at least one local control system on the [sic] at least one streamer positioning device having a wing, the local control system adjusting the wing.

However, ION has failed to show that any person of ordinary skill in the art would have selected and combined these prior art elements in the normal course of research and development to yield the claimed invention. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). ION has not met its burden to overturn the jury’s finding of nonobviousness.

2. Claim 15 of the ‘607 Patent

ION argues that Claim 15 of the ‘607 Patent is obvious based on the combination of the Workman Patent and the ‘636 Publication, which are prior art. At trial, Mr. Brune explained that

the Workman Patent, '636 Publication and '607 Patent are in the same field. Therefore, ION argues, a person of ordinary skill in the art would be motivated to combine the Workman Patent and the '636 Publication. However, ION fails to explain how the combination could disclose and enable all of these limitations and harmonize the differences in the two patents. *In re Kumar*, 418 F.3d 1361, 1369 (Fed. Cir. 2005) (“To render a later invention unpatentable for obviousness, the prior art must enable a person of ordinary skill in the field to make and use the later invention.”). ION has not met its burden to overturn the jury’s finding of nonobviousness.

3. Claim 14 of the '038 Patent

ION argues that Claim 14 is obvious based on the '895 Publication. Mr. Brune testified that, even assuming that the tracking systems are not expressly or inherently disclosed in the '895 Publication, they would have been obvious to a person having ordinary skill in the art. Mr. Brune further testified that, at least since the late 1980s, compass navigation, acoustic navigation, and satellite navigation have existed. However, Mr. Brune also remarked during cross examination that using laterally steerable streamers in order to match a later survey to a reference position from a prior survey or reference file “is definitely a notable improvement.” (Trial Tr. At 3988:20-25.) The jury could weigh this admission and reasonably conclude that Claim 14 was not obvious.

ION has not demonstrated that the jury’s verdict on anticipation or obviousness was against the great weight of the evidence. *See Dresser–Rand Co. v. Virtual Automation, Inc.*, 361 F.3d 831, 838-39 (5th Cir. 2004). Therefore, ION’s Rule 59 Motion for New Trial on Invalidity Under 35 U.S.C. §§ 102 and 103 must be denied.

V. ENABLEMENT

ION has filed a Request for Findings and Conclusions on Enablement and, Alternatively, Motion for New Trial. (Doc. No. 552.) The Patent Act states:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

35 U.S.C.A. § 112.

To be enabled, a patent specification must provide sufficient information to enable a person skilled in the relevant art to make and use the claimed invention without undue experimentation. The Federal Circuit has set forth the following factors that courts may weigh in deciding whether a disclosure would require undue experimentation:

1. the quantity of experimentation necessary;
2. the amount of direction or guidance presented;
3. the presence or absence of working examples;
4. the nature of the invention;
5. the state of the prior art;
6. the relative skill of those in the art;
7. the predictability or unpredictability of the art; and
8. the breadth of the claims.

Martek Bioscience Corp. v. Nutrinova, Inc., 579 F.3d 1363, 1378 (Fed. Cir. 2009). ION must “prove invalidity based on nonenablement by clear and convincing evidence.” *MagSil Corp. v. Hitachi Global Storage Technologies, Inc.*, 687 F.3d 1377, 1380 (Fed. Cir. 2012). After considering the motion, all responses, oral argument, and the applicable law, the Court must deny this motion.

A. Findings and Conclusions

ION claims that the Court must state its findings of facts and conclusions of law because the enablement question was sent to the jury as an “advisory determination.” Rule 52(a)(1).

However, both parties agreed to submit the question of enablement to the jury and neither party indicated this was merely an advisory verdict. The Federal Circuit has held that “it is not error to submit legal questions to the jury as part of a Rule 49(a) special verdict form, since the answer to the legal question necessarily resolves any disputed underlying factual issues, the court must accept implicit factual findings upon which the legal conclusion is based when they are supported by substantial evidence.” *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1359 (Fed. Cir. 2012). The Federal Circuit has held that enablement is a question of law, but “is amenable to resolution by the jury where the issues are factual in nature.” *BJ Services Co. v. Halliburton Energy Services, Inc.*, 338 F.3d 1368, 1372 (Fed. Cir. 2003). Therefore, the Court need not enter findings and conclusions of law since the question was properly submitted to the jury.

B. New Trial

In the alternative, ION moves for a new trial on enablement on the Bittleston Patents (composed of Claims 18, 19, 23 of ‘520 Patent; Claim 15 of ‘967 Patent; and Claim 15 of the ‘607 Patent), and Claim 14 of the Zajac Patent (‘038 Patent).

1. Bittleston Patents

The Bittleston Patent claims in suit require a control system and ION argues that there is not sufficient information to enable a deterministic control system. ION relies on the trial testimony of two witnesses for this assertion. Dr. Thomas Edgar stated that “[i]t would require an extreme amount of experimentation” to execute the control system. (Trial Tr. 3146:14-18.) A former WesternGeco employee, James Martin, said that crucial information was not disclosed so as to maintain a trade secret. (Trial Tr. 3671:5-3674:10.)

However, ION's expert, Dr. Edgar, admitted in cross-examination that there is no mention of deterministic calculations, and since this is not a claimed invention, it need not be enabled. Dr. Edgar also testified that a person of ordinary skill in the art could use a "simple feedback control loop" with the patent's disclosure to make and use the claimed control modes. (Trial Tr. 3148:11-3150:19.) Furthermore, Mr. Martin stated that he did not know whether the withheld information had to do with the control mode. This testimony, from witnesses not under WesternGeco's control, are sufficient to support a jury verdict that the Bittleston Patents were enabled, and ION has not met the standard of clear and convincing evidence to warrant a new trial.

2. Zajac Patent

ION claims that Claim 14 of the Zajac Patent is not enabled because it fails to teach one skilled in the art how to make or use the invention in order to determine what positioning commands to issue to active streamer positioning devices. ION cites various parts of Mr. Zajac's testimony in which Mr. Zajac admits that the device is very complex and the patent does not enable one to implement the claimed invention. However, WesternGeco presented testimony that the Zajac Patent is an improvement of the Bittleston Patents and it explicitly builds on and cites to those patents. Mr. Brune also testified that the Zajac Patent, read in conjunction with the Bittleston Patents, enabled the claimed invention. Furthermore, other portions of Mr. Zajac's testimony reveal that Mr. Zajac did not include some specifications because those practices were already known to and available to one of ordinary skill in the art. *Koito Mfg. Co. v. Turn-Key-Tech., LLC*, 381 F.3d 1142, 1156 (Fed. Cir. 2004) (a patentee does not "need to include in the specification that which is already known to and available to one of ordinary skill in the art.>"). Furthermore, ION's expert, Dr. Edgar, also conceded on cross-examination that the active

streamer positioning device was enabled. (Trial Tr. at 3167:19-23.) The jury had the opportunity to weigh this evidence and the verdict is not against the great weight of evidence. Therefore, ION has not shown that a new trial is warranted on enablement and its motion should be denied.

VI. Non-Infringement

ION's has filed a Renewed Motion for Judgment as a Matter of Law and Alternative Motion for New Trial Regarding Non-Infringement (Doc. No. 556) on all claims because it asserts that no claims have been infringed. WesternGeco asserted that the following claims were literally infringed: Claims 18, 19 and 23 of the '520 Patent; Claim 15 of the '967 Patent; Claim 15 of the '607 Patent; and Claim 14 of the '038 Patent. To literally infringe, the accused system must embody every claim limitation as construed by the court. *Gen. Elec. Co. v. Nintendo Co.*, 179 F.3d 1350, 1357-58 (Fed. Cir. 1999). WesternGeco also asserted that the following claims were infringed under the doctrine of equivalents ("DOE") if they were not literally infringed: Claims 18, 19 and 23 of the '520 Patent; and Claim 15 of the '967 Patent. DOE requires that the accused system contain each limitation of the claim or its equivalent. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997). A claim limitation is "equivalently present in an accused device if only 'insubstantial differences' distinguish the missing claim element from the corresponding aspects of the accused device." *Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302, 1309-10 (Fed. Cir. 2002). Each of the claims are discussed below, but ultimately, the Court must deny ION's motion.

A. Claims 19 and 23 of the '520 Patent

ION argues that Claims 19 and 23 of the '520 Patent do not infringe literally or under the Doctrine of Equivalents. ION argues that Claim 19 does not infringe literally because ION's system does not include a "feather angle mode." The Court construed "feather angle mode" to

mean “a control mode that attempts to set and maintain each streamer in a straight line offset from the towing direction by a certain feather angle.” (Doc. No. 530, “Jury Instructions”, No. 6.) ION argues that only the ghost streamer, and not “each streamer,” is set to the feather angle. However, sufficient evidence supports the jury’s verdict that Claim 19 of the ‘520 Patent was literally infringed. The remaining streamers align themselves with the reference streamer at that same feather angle. A number of Fugro’s and ION’s employees and customers testified at trial that ION’s system operates in feather mode. (Trial Tr. 3468:25–3469:8, 3474:19–25 (Daniel Seale, ION’s senior systems engineer); *id.* at 2055:12–15, 2062:7–9, 3340:17–3342:1, 3353:2–11, 3362:14–23, 3433:15–24, 3435:3–3436:6 (Crawford Macnab, ION’s Orca software project manager); *id.* at 1008:5–7, 1009:4–8, 1013:22–1014:19, 1024:21–1025:10, 1028:18–22, 1030:1–3 (Leif Morten By, Fugro’s former Navigation Manager); *id.* at 3025:8–13 (David Moffat, ION’s Senior Vice President)). The jury could reasonably determine that there was literal infringement.

ION argues that Claim 23 of the ‘520 Patent does not infringe literally because it does not have the “feather angle mode” or a “turn control mode.” ION argues that, because there is no feather angle mode and the “turn control mode” depends on it, there is no literal infringement. However, the preceding paragraph demonstrates that there is not enough evidence to overturn the jury’s verdict on “feather angle mode.” As for the “turn control mode,” the Court construed it to mean a “mode wherein streamer positioning device(s) generate a force in the opposite direction of a turn and then directing each streamer positioning device to the position defined in the feather angle mode.” (Jury Instruction, No. 6.) ION argues that both DigiBIRD and DigiFIN products would have to “generate a force in the opposite direction”, but the DigiBIRD is undisputedly a depth-control device only that cannot generate forces in the opposite direction of a turn. Evidence and testimony at trial showed that DigiFIN products did generate a force in the

opposite direction of the turn. Literal infringement does not depend on DigiBIRD products also generating a force in the opposite direction. The Court's construction did not require all of the streamer positioning devices to participate in the turn control mode, only one or more devices. Therefore, the jury could have found that DigiFIN's turn control mode was sufficient to literally infringe Claim 23 of the '520 Patent. ION has not shown that the weight of the evidence was against the jury's verdict on Claims 19 and 23 of the '520 Patent.

B. Claim 15 of the '607 Patent

Claim 15 of the '607 Patent reads:

An array of seismic streamers towed by a towing vessel comprising:

...

(b) a prediction unit adapted to predict positions of at least some of the streamer positioning devices . . .

ION argues that Claim 15 of the '607 Patent cannot be infringed because of how the word "predict" is defined. ION argues that the jury instructions obligate the jury to apply the ordinary meaning of the term "predict" because the Court did not construe the term. ION claims that the plain and ordinary meaning of the term "predict" requires a future element, and ION's devices do not tell the future positions of the streamer position devices. ION made this argument before this Court previously and this Court held that "predict" is not limited to future "wall-clock" times. The Court held that the future sense of "predict" is not the plain and ordinary meaning of "predict" to a person of ordinary skill in the art. Predict could mean using a past position to "predict" position at a later time, such as the present position. At an earlier time, this Court rejected ION's construction of "predict" and finds no reason to overturn its decision now. Therefore, ION's Motion for JMOL or New Trial on claim 15 of '607 Patent must be denied.

C. Claim 15 of the '967 Patent

Claim 15 of the '967 Patent reads:

An array of seismic streamers towed by a towing vessel comprising:

...

(b) a global control system transmitting location information to at least one local control system . . .

The Court construed “location information” to mean “information regarding location.” (Jury Instruction, No. 6.) ION argues that its system does not transmit location information from the Lateral Controller to DigiFINs as required by Claim 15. However, WesternGeco presented testimony at trial by expert, Dr. Michael Triantafyllou, stating that the DigiFIN did receive the fin angle, which is “an equivalent concept, whether you send location or a fin calculated on location.” (Trial Tr. 1463:9–22.) Other evidence was also presented at trial to show that this fin angle was location information. Crawford Macnab, ION’s software project manager, confirmed that ORCA sends location information to the lateral controller and that the lateral controller manipulates and sends this location information to the DigiFIN. (Trial Tr. 2053:24–2054:4; *see also id.* at 3431:24–3432:4, 3433:7–10.) Sufficient evidence supports the jury’s finding on Claim 15 of the ‘967 Patent.

D. Claim 14 of the ‘038 Patent

Relevant to ION’s argument, Claim 14 of the ‘038 Patent reads:

A seismic streamer array tracking and positioning system comprising:

...

A master controller for issuing vertical and horizontal positioning commands to each ASPD for maintaining a specified array geometry;

...

Compares the vertical and horizontal positions of the streamers versus time and the array geometry versus time to desired streamer positions and array geometry versus time . . .

ION argues that it could not infringe literally since the Lateral Controller does not send “target depth” to the DigiFIN and it does not perform a comparison function as required by Claim 14. However, neither Claim 14 nor the Court’s construction require “target depth” to be

sent, merely “positioning commands” that are “signals or instructions to control positioning.” (Doc. No. 120 p. 46.) WesternGeco presented evidence at trial that DigiFIN did just this. Additionally, evidence and testimony was presented to support a finding that DigiFIN compares desired streamer positions versus time. Dr. Triantafillou explained that ION’s system “compares the vertical and horizontal positions of the streamers versus time and the array geometry versus time to desired streamer positions and array geometry versus time.” (Trial Tr. 1355:22-1370:24, 1443:4-14.) The jury could have reasonably relied on this information to reach its verdict.

ION also argues that its system does not include the “active streamer positioning device” (“ASPD”) recited in Claim 24. An ASPD was construed by the Court as “a device capable of controlling the vertical and horizontal position of the seismic streamer”. (Jury Instructions, No. 6.) Before trial, the Court decided that ION’s DigiFIN device could control the vertical and horizontal position of the streamer, thereby preventing ION from arguing that DigiFIN was not an ASPD. (Doc. No. 402 p. 9.) ION argues that the Court decided wrongly because DigiFIN cannot control depth. ION does not present any new evidence and the Court need not overrule its previous decision that DigiFIN is an ASPD. Accordingly, ION’s Motion regarding for Claim 14 of the ‘038 Patent must be denied.

VII. INFRINGEMENT UNDER 35 U.S.C. § 271(f)(2)

ION has filed a Motion for New Trial on Infringement Under 35 U.S.C. § 271(f)(2) (Doc. No. 557), claiming the evidence cannot support a finding that ION possessed the requisite knowledge to infringe 35 U.S.C. § 271(f)(2). Section 271(f) was enacted in response to the Supreme Court’s decision in *Deepsouth Packaging Co. v. Laitram Corp.*, 406 U.S. 518 (1972). The loophole presented in *Deepsouth* was that shipping an unassembled patented product abroad for later assembly avoids patent infringement. This Court interpreted § 271(f)(2) to have the

same intent requirement as contributory infringement under § 276(c). (Doc. No. 372 p. 7.) Specifically, this Court held that the intent requirement of §271(f)(2) “requires a plaintiff to prove that the defendant (1) intended the combination of components; (2) knew that the combination he intended was patented; and (3) knew that the combination he intended would be infringing if it occurred in the United States.” (*Id.*) Neither party disputes this statutory construction.

ION denies intent to infringe on all claims because it contends it did not know it was infringing. First, ION argues that it could not have intended to infringe Claim 19 of the ‘520 Patent because it reasonably understood that its system did not comprise the required feather angle mode. Second, ION argues it could not have intended to infringe Claim 23 of the ‘520 Patent because it required ION’s system to have a feather angle mode and the turn control mode and ION claims it did not think its system had either of these modes. Third, ION argues it could not have intended to infringe Claim 15 of the ‘967 Patent because it did not think its system had location information. Fourth, ION argues it could not have intended to infringe Claim 15 of the ‘607 Patent because it did not think its system had a prediction unit. Lastly, ION argues it could not have intended to infringe Claim 14 of the ‘038 Patent because it asserts its system did not have a master controller or an ASPD.

However, ION does not dispute the jury’s determination that neither the DigiFIN nor the Lateral Controller has any substantial non-infringing uses. Nor does ION dispute that it knew that the DigiFIN and the Lateral Controller were especially made or adapted for use in the patented invention. The Supreme Court has held, “One who makes and sells articles which are only adapted to be used in a patented combination will be presumed to intend the natural consequences of his acts; he will be presumed to intend that they shall be used in the

combination of the patent.” *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 932 (2005). ION responds that the inquiry is not about intent, but knowledge, so *Grokster*, which concerns § 272(c), does not apply. However, in a previous Order, this Court noted that § 272(c) has the same intent requirement as § 272(f)(2). (Doc. No. 372 p. 7.) In *Spanion, Inc. v. Int’l Trade Comm’n*, 629 F.3d 1331 (Fed. Cir. 2010), the Federal Circuit held that because “appellants were aware of the . . . patent, and [patentee] successfully showed that the accused devices did not have any substantial noninfringing uses”, then “presum[ing] the requisite knowledge for contributory infringement . . . was not erroneous.” *Id.* at 1355. ION has not shown that the weight of the evidence is contrary to the jury’s verdict to warrant a new trial. Therefore, this motion should be denied.

VIII. CLAIM CONSTRUCTION

ION has filed a Motion for JMOL and New Trial Due to Incorrect Claim Construction. (Doc. No. 561.) ION moves for JMOL or new trial for non-infringement of Claims 18, 19, and 23 of the ‘520 Patent, Claim 15 of the ‘967 Patent, and Claim 15 of the ‘607 Patent, claiming there was not sufficient evidence to sustain the verdict of infringement under 35 U.S.C. § 271(f) when the correct construction of “streamer positioning device” is applied. ION similarly argues there is not sufficient evidence to sustain the verdict if the correct construction of “active streamer positioning device” is used with respect to Claim 14 of the ‘038 Patent. The Court already decided these claim constructions in 2010. (Doc. No. 120.)

It appears that ION’s motion is procedurally improper since it failed to move under Rule 50(a) on the basis of an “incorrect claim construction.” ION contends that it argued JMOL for non-infringement on each of the patents, but JMOL for non-infringement is not a motion for incorrect claim construction, which ION now argues. Second, ION failed to object to the jury

instructions, which construed the terms at issue. Third, ION's motion could be understood as a motion for reconsideration of this Court's claim construction order (Doc. No. 120), in which case the motion is untimely since it comes two years after the order. It appears to the Court that ION is merely rehashing its prior claim construction arguments and has not presented any change in law or fact that would cause the Court to overturn its previous ruling. Therefore, ION's motion regarding incorrect claim construction must be denied.

IX. WILLFUL INFRINGEMENT

Both parties have filed motions on the issue of willful infringement. ION has filed a Motion for Entry of Findings and Conclusions of No Willful Infringement, Renewed Motion for Judgment as a Matter of Law of No Willful Infringement, and Alternative Motion for New Trial. (Doc. No. 559.) WesternGeco has filed a Motion for Willfulness and Enhanced Damages. (Doc. No. 560.) In 2007, the Federal Circuit altered the willful infringement inquiry to one of recklessness. *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007). The Federal Circuit requires a two-prong showing of recklessness by clear and convincing evidence. *Id.* The first prong requires a showing of objective recklessness and the second a showing of subjective recklessness. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc.*, 682 F.3d 1003, 1005 (Fed. Cir. 2012) cert. denied, 12-458, 2013 WL 141409 (U.S. Jan. 14, 2013). To establish objective recklessness, WesternGeco would have to prove that the "infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent. Once the threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk . . . was either known or so obvious that it should have been known to the accused infringer." *Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc.*, 682 F.3d at 1005. The objective prong is a question of law to be decided by the Court; the subjective prong is a

question of fact that was decided by the jury. *Id.* at 1005-06. The Court had not yet decided the objective prong before the subjective prong was submitted to the jury, which found willful infringement. After considering the arguments made by each party, the Court finds no objective recklessness, and therefore, no willfulness.

A. Objective Recklessness

The Federal Circuit has recognized that "in ordinary circumstances, willfulness will depend on an infringer's prelitigation conduct." *Seagate*, 497 F.3d at 1374. The Court must base its determination of objective recklessness "on the record ultimately made in the infringement proceedings". *Bard*, 682 F.3d at 1008. WesternGeco argues that objective recklessness is proven because the jury found subjective recklessness and the Court ruled in favor of WesternGeco as a matter of law regarding ION's infringement of the '520 Patent, ION's defenses of laches, equitable estoppel, waiver, and unclean hands, and ION's § 101, written description, best mode and indefiniteness invalidity defenses. However, WesternGeco's assertion that the Court's grant of summary judgment and the jury's infringement findings are dispositive of the objective recklessness inquiry is incorrect. The Federal Circuit is clear that "[d]efeet of a litigation position, even on summary judgment, does not warrant an automatic finding that the suit was objectively baseless; all of the circumstances must be considered." *Aspex Eyewear Inc. v. Clariti Eyewear, Inc.*, 605 F.3d 1305, 1315 (Fed. Cir. 2010). Instead, to prove the objective prong, WesternGeco must show by clear and convincing evidence that "[ION] acted despite an objectively high likelihood that its actions constituted infringement of a valid patent." *Bard*, 682 F.3d at 1005. Thus, WesternGeco has the burden to show that "no reasonable litigant could realistically expect success on the merits." *Id.* at 1006, 1008; *iLOR, LLC v. Google, Inc.*, 631

F.3d 1372, 1378 (Fed. Cir. 2011); *Old Reliable Wholesale, Inc. v. Cornell Corp.*, 635 F.3d 539, 544 (Fed. Cir. 2011).

ION claims that it was not unreasonable for it to rely on its belief that there was no infringement because it reasonably believed:

- Claim 19 of the ‘520 did not have a feather angle mode;
- Claim 23 of the ‘520 Patent did not have a feather angle mode or turn control mode;
- Claims of the ‘520 Patent did not have control systems;
- Claim 15 of the ‘967 Patent did not have location information;
- Claim 15 of the ‘607 Patent did not have a prediction unit;
- Claim 14 of the ‘038 Patent did not have a master controller or an ASPD.

1. Claims 18, 19, and 23 of the ‘520 Patent

At issue are the “feather angle mode” and the “turn control mode” limitations of these claims. The Court construed these modes as:

Feather angle mode: a control mode that attempts to set and maintain each streamer in a straight line offset from the towing direction by a certain feather angle.

Turn control mode: mode wherein streamer positioning device(s) generate a force in the opposite direction of a turn and then directing each streamer positioning device to the position defined in the feather angle mode.

(Doc. No. 120, 24-27, 45.) At trial, it was uncontroverted that ION’s system does not set and maintain each streamer at a certain feather angle. Instead, ION’s system only sets the “ghost streamer” at a specific feather angle. (Trial Tr. 3781:3-3784:9.) The Court finds that ION’s defense against infringement is not objectively baseless in that no reasonable litigant could realistically expect to succeed. Likewise, the uncontroverted evidence at trial was that the streamer positioning devices in ION’s system could not all generate a force in the opposite direction of a turn and then be directed to the position defined in the feather angle mode. (Trial Tr. 3786:7-23.) Specifically, the DigiBIRDS could not “generate a force in the opposite direction

of the turn.” Though the jury found in favor of WesternGeco, ION’s defense for turn control mode was not unreasonable.

2. The ‘607 Patent

Claim 15 of the ‘607 Patent requires “a prediction unit adapted to predict positions of at least some of the [SPDs].” ION claims that the use of the word “predict” led it to believe the claim required a forecasting of future positions rather than an estimation of current positions. Though the Court ultimately construed the term “predict” to mean the ability to not be bound by wall-clock times and could mean present time, ION’s argument is not unreasonable by clear and convincing evidence.

3. The ‘967 Patent

WesternGeco contends that ION’s user manual and DigiFIN’s product specification both describe transmission of location information from a global control system to a local control system as in Claim 15 of the ‘967 patent. Claim 15 of the ‘967 Patent requires “a global control system transmitting location information to at least one local control system on the at least one [SPD].” ION construed an SPD to have the capacity to steer both laterally and vertically. (Doc. No. 73 p. 6.) Therefore, because the DigiFINs only receive a fin angle command from the alleged global control system, it did not transmit “information regarding location.” (Trial Tr. 2767:9-25.) It was ION’s position that the fin angle does not represent the location, latitude, longitude, depth, or lateral position to which the DigiFIN is to be moved. (Trial Tr. 3451:22-25, 3462:16-3463:24.)

WesternGeco argues that infringement of this claim was objectively reckless because a third party, StatoilHydro, conducted an infringement investigation and concluded that the ‘967 Patent “clearly envisages a system working along broadly the same lines as described above in

relation to ION.” (Doc. No. 560 p. 8.) The parties argue about the admissibility of the investigation for the truth of the matter asserted. However, the Court need not reach that point in the objective recklessness inquiry. The Federal Circuit has delineated the purposes of each of the prongs:

Seagate established a two-pronged test for establishing the requisite recklessness. Thus, to establish willful infringement, “a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.” Once the “threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk . . . was either known or so obvious that it should have been known to the accused infringer.”

Bard, 682 F.3d at 1005 (citations omitted). Therefore a third party’s opinion regarding ION’s possible infringement is more appropriate for the subjective recklessness inquiry rather than for objective recklessness. Focusing only on ION’s asserted defenses, the Court does not find them objectively baseless.

4. The ‘038 Patent

The Court construed an ASPD as a device capable of controlling the vertical and horizontal position of the seismic streamer. (Doc. No. 120 p. 46.) ION’s litigation defense for the ‘038 Patent was that DigiFIN was not an ASPD because the DigiFIN could not be commanded to steer a streamer to a particular depth and lateral position so as to maintain a specified array shape. (Trial Tr. 3499:15-3500:2.) ION further argued that it believed its system did not consist of a master controller for issuing vertical and horizontal positioning commands to **each** ASPD for maintaining a specified array geometry. The Court finds and holds that this was a reasonable defense.

5. ION’s Invalidity Defenses

ION’s defenses at trial were lack of enablement, anticipation and obviousness. The Court considered ION’s defenses above in ION’s Rule 59 Motion for New Trial on Invalidity Under 35

U.S.C. §§ 102 and 103. (Doc. No. 550.) Though the Court does not find for ION on invalidity, its arguments are not objectively baseless. Therefore, the Court finds no objective recklessness.

B. Subjective Prong

Because the Court finds no objective recklessness, the threshold standard, it need not evaluate the jury's finding of subjective recklessness for reasonableness. WesternGeco must prove both subjective and objective recklessness by clear and convincing evidence. Since WesternGeco has not proven objective recklessness by clear and convincing evidence, the Court finds no willful infringement.

X. EXCEPTIONAL

WesternGeco has filed a Motion to Find this Case Exceptional Under Section 285 and for Attorneys' Fees. (Doc. No. 554.) "The court in exceptional cases may award reasonable attorney fees to the prevailing party." 35 U.S.C. § 285. The award of attorneys' fees serves as a "deterrent[] to blatant, blind, willful infringement of valid patents." *Mathis v. Spears*, 857 F.2d 749, 754 (Fed. Cir. 1988). The first step is to decide whether the case is exceptional by clear and convincing evidence within the meaning of § 285. *Beckman Instruments, Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551 (Fed. Cir. 1989). Second, if the case is deemed exceptional, the Court must determine whether an award of fees is appropriate and, if so, in what amount. *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 687 F.3d 1300, 1308 (Fed. Cir. 2012).

To find a case exceptional, there must be some "material inappropriate conduct related to the matter in litigation, such as willful infringement, fraud or inequitable conduct in procuring the patent, misconduct during litigation, vexatious or unjustified litigation, conduct that violates Fed. R. Civ. P. 11, or like infractions." *Brooks Furniture Mfg., Inc. v. Dutailier Int'l, Inc.*, 393 F.3d 1378, 1381 (Fed. Cir. 2005). "Litigation misconduct generally involves unethical or

unprofessional conduct by a party or his attorneys during the course of adjudicative proceedings.” *Highmark*, 687 F.3d. at 1315-16. Further, a lawyer’s conduct cannot be evaluated with the benefit of hindsight. *Christiansburg Garment Co. v. EEOC*, 434 U.S. 412, 421-22 (1978). If the court finds the case to be exceptional, then it can determine whether attorneys’ fees are appropriate. *Beckman Instruments, Inc.*, 892 F.2d at 1551. “[B]efore imposing sanctions under its inherent power, a court must make a specific finding that the sanctioned party acted in “bad faith.”” *Maguire Oil Co. v. City of Houston*, 143 F.3d 205, 209 (5th Cir. 1998).

WesternGeco makes a number of arguments as to why the Court should find this case exceptional. Each will be discussed in turn, and ultimately, the Court finds that this case is not exceptional.

A. Willfulness

A finding of willfulness does not require a finding that a case is exceptional under § 285. *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 1582 (Fed. Cir. 1992) (affirming district court decision declining to find a case exceptional despite a jury finding of willfulness due, in part, to the closeness of the willfulness question); *Laitram Corp. v. NEC Corp.*, 115 F.3d 947, 955 (Fed. Cir. 1997) (affirming district court’s finding case not exceptional and denial of attorneys’ fees despite jury’s willfulness finding given infringer’s presentation of a good faith defense against willfulness and substantial challenge to infringement). However, as discussed above, the Court found no willful infringement so this cannot be a factor in favor of finding the case exceptional.

B. Vexatious Litigation and Other Litigation Misconduct

Another criteria for declaring a case exceptional includes vexatious litigation and litigation misconduct. “Any attorney . . . who so multiplies the proceedings in any case

unreasonably and vexatiously may be required by the court to satisfy personally the excess costs, expenses, and attorneys' fees reasonably incurred because of such conduct." 28 U.S.C. § 1927. An exceptional case based on litigation misconduct is reserved for extreme cases. Such sanctions are an extraordinary remedy that should be "sparingly applied." *FDIC v. Calhoun*, 34 F.3d 1291, 1297 (5th Cir. 1994). A court "may not shift the entire financial burden of an action" under § 1927 "except when the entire course of proceedings were unwarranted and should neither have been commenced nor persisted in." *Calhoun*, 34 F.3d at 1297.

WesternGeco claims ION was a vexatious litigant because it asserted meritless defenses and counterclaims; used unnecessary tactics such as Hague requests during discovery; and filed repeated motions for reconsideration. According to WesternGeco, vexatious litigation tactics during trial included attempting to re-litigate infringement and inventorship and argue an irrelevant "own patent" defense. Further, vexatious tactics post-trial included new meritless defenses. However, the Court is not convinced that this conduct rises to the level of vexatious litigation or misconduct pursuant to § 1927. This was a complicated case that spanned many years and nearly a month of trial. ION initially had to defend itself against 163 claims of infringement, which would require a defense strategy that includes many filings, defenses, and arguments. The Court noted multiple times that the issues were close questions of law and fact. Furthermore, ION's defenses and counterclaims were hotly contested as evidenced by the long Memoranda and Orders issued by this Court. The Court has seen this case from its inception and does not find that ION's litigation conduct rises to the high level necessary to find this case exceptional.

XI. DAMAGES

ION moves for JMOL, new trial, or remittitur on damages. (Doc. No. 562.) ION claims that the \$105.9 million award decided by the jury was based on two defective and overlapping damage models: lost profits and reasonable royalty. The jury awarded WesternGeco 100% of the lost profits it sought and 84% of the reasonable royalty it sought. This amounted to \$93.4 million for lost profits and \$12.5 million in reasonable royalty. “[A] decision on remittitur . . . is within the sound discretion of the trial court . . . and damages are set aside ‘only upon a clear showing of excessiveness.’ An excessive award exceeds the ‘maximum amount calculable from the evidence.’” *Fractus, S.A. v. Samsung Elecs. Co.*, No. 6:09-cv-203, 2012 WL 2505741, at *22 (E.D. Tex. June 28, 2012).

A. Lost Profits

1. Foreign Infringement

ION argues that the lost profits award must be vacated because it is not based on the domestic acts of infringement in this case but on the revenues that WesternGeco estimated its overseas competitors received for their non-infringing uses of ION’s equipment in ten seismic surveys performed in foreign waters. ION says to do so is not permitted by § 271(f) and would give improper extraterritorial effect to U.S. law. ION insists that it can only be liable for “supplying” the component and cannot extend to subsequent “making” or “using” of a device abroad. However, Section 271(f)(1) in whole states:

Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

If ION were strictly held liable for supplying, then §271(f) would lose all its weight, allowing a loophole for manufacturers to export components for infringing uses abroad. The legislative history noted that § 271(f) was intended to prevent copiers from avoiding U.S. patents by supplying components of a patented product in this country so that the assembly of the components may be completed abroad. Patent Law Amendments, Pub.L. No. 98-622, 1984 U.S. Code Cong. & Admin. News (98 Stat.) at 5828. This section of the patent law amendment was proposed in response to the U.S. Supreme Court's decision in *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518 (1972), which created a loophole in prior patent law, allowing copiers to avoid liability for products patented in the United States, by shipping the patented components for combination in foreign countries. The Federal Circuit and district courts have repeatedly awarded lost profits under § 271(f) based on lost foreign sales. *See, e.g., Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366, 1378 (Fed. Cir. 2005), *overruled on other grounds* (approving reliance on “foreign sales for the purpose of recovering additional damages under 35 U.S.C. § 271(f)(2).”); *W.R. Grace & Co.--Conn. v. InterCat, Inc.*, 60 F. Supp. 2d 316, 321 (D. Del. 1999) (holding “plaintiff is entitled to damages based on InterCat's international sales.”).

Furthermore, while 35 U.S.C.A. § 271(a) limits infringing sales to those sales made within the United States, lost profits based on an accused infringer's sales of a patented product in a foreign country may be properly recoverable as an item of lost profits if the patentee can show “a reasonable probability that but for the infringement,” it would have made the foreign sales that were made by the accused infringer. Such foreign sales are only proper to include in the damage calculus when there is an act of infringement occurring in the United States directly associated with the foreign sale, such as the making of the product in the United States, if the

predicates of § 271(f) can be met. 4 Annotated Patent Digest § 30:44. It was undisputed at trial that every DigiFIN that ION sold was made in and supplied from the United States. (*See, e.g.*, Trail Transcript 2788:22-2790:10.) Therefore, lost profits can appropriately be recovered from these infringing sales.

2. *Panduit* Test

Although not separately required, the *Panduit* factors support the jury's lost profits award. The *Panduit* test provides that to obtain profits on sales the patentee would have made but for the infringement, the patent owner must prove: (1) demand for the patented product; (2) absence of acceptable non-infringing substitutes, (3) his manufacturing and marketing capability to exploit the demand, and (4) the amount of the profit he would have made. *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978).

The record evidence satisfies the *Panduit* test, which creates a presumption of "but for" causation when met. But before the *Panduit* factors are analyzed, the Court must address ION's argument that the *Panduit* test does not apply. ION proceeded before trial and during trial as if the *Panduit* test applied. Before trial, both parties agreed that the *Panduit* factors were appropriate. (Doc. No. 402 p. 6 ("Mr. Sims applied the methodological approach that all parties agree is appropriate by utilizing the *Panduit* factors.")) During trial, ION's damages expert, Mr. Gunderson, spent over an hour and a half explaining to the jury his analysis of the *Panduit* factors in this case. (*See, e.g.*, Trial Tr. 4665:16-4698:9, 4701:23-4742:5.) Even ION's actions aside, applying the *Panduit* factors was one appropriate means by which the jury could find lost profits. (Jury Instruction No. 19 ("it would have made the sales it says it lost but for the infringement."))

ION argues that even if the *Panduit* test is applicable, the factors are not met with sufficient evidence. The Court finds that WesternGeco presented sufficient evidence to prove each of the four prongs. First, ION conceded at trial that there was demand for the patented product. (Doc. No. 562 pp. 15-24; Trial Tr. 4669:9-4670:3.) Second, WesternGeco presented evidence regarding the Nautilus and eBird, which the jury could reasonably conclude were not acceptable, non-infringing alternatives available during the relevant time period. Third, WesternGeco presented evidence through Mr. Sims, who concluded that WesternGeco would have had 59 months of available capacity to perform the lost jobs, more than double the capacity required. (Trial Tr. 2266:5-2267:25, 2297:6-18, 2445:5-16.) Therefore, WesternGeco presented sufficient evidence for the jury reasonably to find that it had the capability to exploit the demand. Fourth, WesternGeco presented its lost profit calculation through the Customer Relationship Management (“CRM”) database, which WesternGeco’s damages expert, Raymond Sims, relied on in his calculations. ION argues the CRM was not reliable. However, the Court allowed the CRM into evidence and the jury had the opportunity to weigh the evidence. The *Panduit* factors were one way for the jury to find lost profits. Based on the evidence presented at trial, the jury could reasonably have found lost profits.

B. Reasonable Royalty

1. Double Counting

ION claims there was improper recovery of both measures of damages because a patentee may recover either lost profits or a reasonable royalty for each infringing act, but not both. *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009) (“Two alternative categories of infringement compensation are the patentee's lost profits and the reasonable royalty he would have received through arms-length bargaining.”). ION claims the

jury was instructed in such a way that they could award both a reasonable royalty and lost profits for the same acts of infringement. However, the jury instructions were clearly worded to avoid double counting:

If you find that WesternGeco has established infringement, WesternGeco is entitled to at least a reasonable royalty to compensate it for that infringement. If you find that WesternGeco has not proved its claim for lost profits, or has proved its claim for lost profits for only a portion of the infringing sales, then you must award WesternGeco a reasonable royalty for all infringing sales for which it has not been awarded lost profits damages.

(Jury Instruction No. 20.) The jury instruction is the exact wording of the Model Patent Jury Instructions provided by the Federal Circuit Bar Association:

If you find that [patent holder] has established infringement, [patent holder] is entitled to at least a reasonable royalty to compensate it for that infringement. If you find that [patent holder] has not proved its claim for lost profits, or has proved its claim for lost profits for only a portion of the infringing sales, then you must award [patent holder] a reasonable royalty for all infringing sales for which it has not been awarded lost profits damages.

(Model Patent Jury Instruction p. 88.) ION did not object to this jury instruction at trial and even if it had, the instructions are worded clearly to avoid double counting.

2. Apportionment

ION argues that the reasonable royalty found by the jury fails to apportion the damages to account for the value of WesternGeco's patented improvement. ION argues that a reasonable royalty may be calculated on the sale of a product provided that the royalty reflects only the contribution of the patented technology, not the entire value of the product. ION claims WesternGeco's patents offer an improvement to existing technology rather than a revolutionary invention. At trial, on behalf of WesternGeco, Mr. Sims applied an analytical approach to quantifying the value of the patented technology. ION had the opportunity thoroughly to cross examine Mr. Sims at trial and the jury could make its own determinations of his credibility.

3. *Marking*

ION also argues it was erroneous for the Court to deny ION's requested marking instruction, allowing the jury to award excessive damages. When a patentee fails to show either that it marked or was not required to mark, the patentee is precluded from recovering damages for any infringement that occurred prior to the date the alleged infringer was notified of the infringement. ION claims that, because Mr. Sims's testimony on the reasonable royalty included damages for infringement prior to the date of actual notice, the Court's failure to instruct on marking resulted in an improper award of damages. This Court has already considered and rejected ION's arguments regarding a marking instruction. (Doc. No. 562 p. 32; Doc. No. 508 p. 5; Doc. No. 530 p. 24.) ION has not presented new evidence that would require the Court to overturn its previous decisions.

XII. PREJUDGMENT INTEREST AND POST-DISCOVERY DAMAGES

A. Prejudgment Interest

WesternGeco has filed a Motion for Prejudgment Interest and Post-Discovery Damages. (Doc. No. 553.) ION does not dispute that prejudgment interest is appropriate, and both parties agree that the prejudgment interest should be compounded annually. The Supreme Court has interpreted 35 U.S.C. § 284¹ to mean that "prejudgment interest should ordinarily be awarded" in patent infringement cases. *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 655 (1983). The only dispute is at what rate the interest is calculated. WesternGeco claims that the prejudgment interest should be awarded at the Texas Statutory Rate.² ION argues that the prime rate should be

¹ "Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement . . . together with interest and costs as fixed by the court." 35 U.S.C. § 284.

² The Texas Statutory Rate is: (1) the prime rate as published by the Board of Governors of the Federal Reserve System on the date of computation; (2) five percent a year if the prime rate as published by the Board of Governors of the Federal Reserve System described by Subdivision (1) is less than five percent; or (3) 15 percent a year if the prime rate as published by the Board of Governors of the Federal Reserve System described by Subdivision (1) is more than 15 percent." Tex. Fin. Code Ann. § 304.003 (West).

used. The Federal Circuit has held that “[a] trial court is afforded wide latitude in the selection of interest rates, and may award interest at or above the prime rate.” *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 939 F.2d 1540, 1545 (Fed. Cir. 1991) (affirming an award of prejudgment interest at the prime rate). *See also Bio-Rad Laboratories, Inc. v. Nicolet Instrument Corp.*, 807 F.2d 964, 969 (Fed. Cir. 1986) (“The rate of prejudgment interest and whether it should be compounded or uncompounded are matters left largely to the discretion of the district court.”); *Paper Converting Mach. Co. v. Magna-Graphics Corp.*, 745 F.2d 11, 24, 223 USPQ 591, 600 (Fed. Cir. 1984); *Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549, 557, 222 USPQ 4, 9–10 (Fed. Cir. 1984); *Railroad Dynamics, Inc. v. A. Stucki Co.*, 727 F.2d 1506, 1520, 220 USPQ 929, 942 (Fed. Cir. 1984); *Lam, Inc. v. Johns-Manville Corp.*, 718 F.2d 1056, 1066, 219 USPQ 670, 676 (Fed. Cir. 1983). In exercising that discretion, however, the district court must be guided by the purpose of prejudgment interest, which is “to ensure that the patent owner is placed in as good a position as he would have been had the infringer entered into a reasonable royalty agreement” and permits the patentee to recover “the forgone use of the money between the time of infringement and the date of the judgment.” *Devex*, 461 U.S. at 655-56.

“Courts have recognized that the prime rate best compensates a patentee for lost revenues during the period of infringement because the prime rate represents the cost of borrowing money, which is “a better measure of the harm suffered as a result of the loss of the use of money over time.”” *IMX, Inc. v. LendingTree, LLC*, 469 F. Supp. 2d 203, 227-28 (D. Del. 2007) (citing *Mars, Inc. v. Conlux USA Corp.*, 818 F.Supp. 707, 720-21 (D.Del.1993), *aff’d*, 16 F.3d 421, 1993 WL 516659 (Fed. Cir. 1993). Other courts have found that “[t]he prime rate, compounded quarterly, is a conservative, middle-of-the road approach that takes into account normal market fluctuations.” *NTP Inc. v. Research in Motion, Ltd.*, 270 F. Supp. 2d 751, 763 (E.D. Va. 2003)

amended, CIV.A. 3:01CV767, 2003 WL 22746080 (E.D. Va. Aug. 5, 2003). Therefore, the Court finds that the prime rate is the appropriate rate to be used in prejudgment interest. Since the parties have reached agreement, the interest will be compounded annually. Prejudgment interest should be awarded on both the lost profits and the royalty portions of the damages awarded for patent infringement. The interest should be awarded from the date of infringement to the date of judgment. ION is instructed to submit appropriate calculations to the Court within ten days.

B. Accounting

At the hearing on February 21, 2013, the Court ordered ION to submit its post-trial accounting because of a concern that ION's executive chairman and former CEO, Robert Peebler, was not truthful during his trial testimony. On August 13, 2012, Mr. Peebler testified under oath to the jury that ION had stopped selling DigiFIN after the Court's June 29, 2012 entry of summary judgment regarding Claim 18 of the '520 Patent. At the hearing, the Court asked ION if Mr. Peebler's testimony was truthful. ION's response was that ION Geophysical Inc. had not, but that ION Dubai, a foreign subsidiary of the Defendant, had.

ION filed its post-trial accounting which described two "sales" that occurred in September 2012. (Doc. No. 620.) ION argues that one of the "sales" was a delivery required under a March 2012 contract with Shanghai Offshore Petroleum Geophysical Corporation ("SOPGC"). ION argues that since the contract was signed in March 2012, before the Court's ruling, the sale also occurred in March 2012. The other sale was a sale and supply that occurred outside of the United States. The transaction was between ION S.a.r.l., a Luxemburg company, and a foreign buyer, where DigiFINs were shipped from Dubai to places outside of the United States. This is very troubling to the Court despite ION's argument that such "sales" were not

sales in violation of the Court's order. At trial, WesternGeco had records of sales up until May 2011. These new records show that 1,353 more units were sold by ION than were disclosed at the time of trial. It also appears that ION relocated all of its U.S. manufactured DigiFIN units to Norway the week after the Court's summary judgment decision.

The Court finds that WesternGeco is entitled to supplemental damages for ION's sales since May 2011. *See Stryker Corp. v. Davol, Inc.*, 234 F.3d 1252 (Fed. Cir. 2000) (affirming district court's decision that a court may award a successful patent plaintiff supplemental damages to compensate the plaintiff for any infringement occurring between the date of the jury's verdict and the date of the judgment.). Because the Court has only recently learned of the need for supplemental damages. WesternGeco is ordered to submit a motion regarding supplemental damages within 15 days.

XIII. COSTS

WesternGeco has filed a Motion for Costs in the amount of \$535,542.03. (Doc. No. 555.) Local Rule 54.2, FRCP 54(d)(1), 35 U.S.C. § 284 and 28 U.S.C. § 1920³ allows the prevailing party, to claim certain costs. The costs are "limited to relatively minor, incidental expenses." *Taniguchi v. Kan Pacific Saipan, Ltd.*, 132 S. Ct. 1997, 2006 (2012). A district court may decline to award costs enumerated in § 1920, but may not award costs not listed in the

³ A judge or clerk of any court of the United States may tax as costs the following:

- (1) Fees of the clerk and marshal;
 - (2) Fees for printed or electronically recorded transcripts necessarily obtained for use in the case;
 - (3) Fees and disbursements for printing and witnesses;
 - (4) Fees for exemplification and the costs of making copies of any materials where the copies are necessarily obtained for use in the case;
 - (5) Docket fees under section 1923 of this title;
 - (6) Compensation of court appointed experts, compensation of interpreters, and salaries, fees, expenses, and costs of special interpretation services under section 1828 of this title.
- 28 U.S.C.A. § 1920 (West)

statute. *Crawford Fitting Co. v. J. T. Gibbons, Inc.*, 482 U.S. 437, 441 (1987). The specific costs are discussed below.

A. Costs Relating to Fees of the Clerk and Docket Fees

Costs relating to fees of the clerk and docket fees may be recovered as authorized by 28 U.S.C. § 1920(1) & (5). (Doc. No. 555, Ex. 2.) WesternGeco claims it incurred \$350.00 in these fees and ION does not dispute this amount.

B. Costs Relating to Fees for Service of Summons and Subpoenas

WesternGeco has withdrawn its request for subpoena costs.

C. Costs Relating to Depositions and Transcripts

Video and written transcripts are recoverable under 28 U.S.C. §1920(2). WesternGeco claims it incurred \$399,052.36 in costs relating to depositions and transcripts. (Doc. No. 555, Ex. 4.) ION argues that a substantial part of that requested cost is not recoverable. ION claims that the costs are bloated with incidentals, which are generally not recoverable.

1. Incidental Fees

First, ION argues that costs for synchronizing videotaped depositions (\$25,340) are not recoverable. The Court agrees. Other courts have found that video synchronization is not a necessity but for the convenience of counsel. *See, e.g., U.S. ex rel. Gonzalez v. Fresenius Med. Care N. Am.*, 761 F. Supp. 2d 442, 450 (W.D. Tex. 2010) *aff'd sub nom. Gonzalez v. Fresenius Med. Care N. Am.*, 689 F.3d 470 (5th Cir. 2012) (“The Court finds, however, that video synchronization was a convenience to the parties and not a necessity.”). The Fifth Circuit has held that “charges incurred merely for the convenience of one party's counsel should not be taxed to the other.” *Fogleman v. ARAMCO (Arabian Am. Oil Co.)*, 920 F.2d 278, 286 (5th Cir. 1991). WesternGeco should not be able to recover for costs of video synchronizing.

Second, ION contests expenses for RealTime transcription of depositions (\$11,911). Courts may award RealTime costs when it is found to be a necessary cost. *Kinzenbaw v. Case LLC*, 05-1483, 2006 WL 1096683 (Fed. Cir. Apr. 26, 2006). This was a complex and lengthy trial. ION filed more than twenty briefs during trial which required responses from WesternGeco. The Court finds that RealTime was a necessary cost. Therefore, WesternGeco can recover the costs of RealTime.

Third, ION disputes fees charged by court reporters for the original and **one copy** of deposition transcripts (\$56,653.85). ION argues that, without a showing of necessity, extra copies of deposition transcripts are not recoverable. However, other courts in this district have held that an original and one copy are a “basic cost” and a necessity. *Krohn v. David Powers Homes, Inc.*, CIV. A. H-07-3885, 2009 WL 2605284 (S.D. Tex. Aug. 21, 2009). “Whether a deposition or copy was necessarily obtained for use in the case is a factual determination to be made by the district court.” *Fogleman v. ARAMCO (Arabian Am. Oil Co.)*, 920 F.2d 278, 285 (5th Cir. 1991). The Court finds that this cost is recoverable.

Fourth, ION contests deposition costs in fees for original and one copy of depositions provided on an expedited basis (\$88,394.36). Expedited costs are not taxable unless prior court approval is obtained or the special character of the litigation necessitates expedited receipt of the transcript. Expedited costs seem minimal based on third party invoices (Doc. No. 579 p. 7 n. 5 (“Two expedition charges (totaling \$2996.78) are itemized.”)), and the complicated nature of this case necessitated expediting depositions. WesternGeco may recover for these costs.

Lastly, ION contests fees for rough draft charges (\$1,968). WesternGeco has made no argument that it should recover for rough draft charges, so the requested amount should also be

reduced by that amount (\$1,968). Therefore, the costs of video synchronizing (\$25,340) and rough drafts of depositions (\$1,968), which totals \$27,308, are unrecoverable as incidental costs.

2. Video Files of Depositions

WesternGeco requests costs for obtaining video files of depositions (\$51,361.07). Video depositions are generally recoverable under § 1920(2) and the Court will allow it here.

3. Deposition Transcription Costs Related to Fugro

ION contests the costs that relate to WesternGeco's claims related to Fugro. WesternGeco took 51 depositions in this case and of those, 18 related directly to Fugro. WesternGeco claims it only seeks its own costs from ION, not Fugro's costs, (Doc. No 585 p. 9) so the Court will allow this recovery.

4. Trial Transcripts Related to Fugro

ION also contests trial transcription costs related to Fugro. ION estimates that Fugro's witness examinations account for about 15% of the transcript. WesternGeco claims that it has already removed Fugro time. The Court finds that WesternGeco may recover this cost since it does not include Fugro time.

D. Costs Relating to Witnesses

WesternGeco originally sought \$9,864.49 in witness fees. After objections from ION, WesternGeco reduces the amount sought to \$7,147.97, which ION does not dispute.

E. Costs Relating to Exemplification, Copies, and Printing

WesternGeco seeks \$109,036.93 in costs relating to exemplification, copying and printing. ION disputes a portion of these charges. First, ION disputes \$26,010.94 in costs for processing documents produced to ION, including charges for litigation support, creating databases, and creating TIFF images. WesternGeco does not make an argument for costs

associated with litigation support or creating databases and has not met its burden to demonstrate these costs are necessary. WesternGeco may not recover the \$26,010.94.

Second WesternGeco seeks to recover \$28,002.54 in costs processing documents produced by ION, namely converting ION's documents into another format to make them searchable. ION did produce a large number of documents, but this cost was for the convenience of attorneys rather than a necessity. Therefore, WesternGeco may not recover the \$28,002.54.

Third, WesternGeco requests \$32,522 in costs of up to six copies of a variety of documents used for trial. WesternGeco does not segregate the costs nor make an argument for why it should recover these costs. ION estimates that the costs of copies for trial should be reduced by 15%, or \$4,878.30, which the Court accepts.

Fourth, WesternGeco seeks \$5,099 in costs for office supplies. These are incidentals not enumerated in the statute and therefore not recoverable.

F. Costs Relating to Court-Appointed Experts

WesternGeco requests \$14,100 for the costs of the Court's appointed expert. ION argues that a portion of this cost should be attributable to Fugro, but WesternGeco states that this is the cost to WesternGeco, not Fugro's cost. Therefore, the Court finds this is an appropriate amount for WesternGeco to recover.

G. Conclusion

In conclusion, from WesternGeco's requested amount of \$535,542.03, the following amounts should be subtracted because they are not recoverable costs:

- Less \$3,138.25 for WesternGeco's withdrawn subpoena costs;
- Less \$25,340 for video synchronization;
- Less \$1,968 for rough drafts of transcripts;
- Less \$2,716.52 for WesternGeco's reduction of costs related to witnesses;
- Less \$26,010.94 in costs for processing documents produced to ION, including charges for litigation support, creating databases, and creating TIFF images;

- Less \$28,002.54 in costs processing documents produced by ION, namely converting ION's documents into another format to make them searchable;
- Less \$4,878.30 for multiple copies;
- Less \$5,099 in costs for office supplies.

WesternGeco can recover costs in the amount of \$438,388.48.

XIV. PERMANENT INJUNCTION; ONGOING ROYALTY

WesternGeco has filed a Motion for a Permanent Injunction or, in the Alternative, an Ongoing Royalty. (Doc. No. 558.) Related to this motion, ION has filed a Motion to Compel Production of Documents From WesternGeco. (Doc. No. 609.)

A. Motion to Compel

ION asks the Court to compel production of the Fugro license agreement ("Fugro license"), letters to ION's customers and potential customers seeking to begin negotiations to enter into additional licensing agreements, and all related documentation ("Licensing Documents"). ION claims this information is directly relevant to WesternGeco's request for a permanent injunction, the scope of any such injunction, and the terms and rate for any post-judgment royalty in lieu of an injunction. ION argues that WesternGeco's permanent injunction is premised on exclusivity, which may be undermined by its license to Fugro and offer to license the patents to ION's other customers.

WesternGeco has worked with Fugro to provide a redacted version of the agreement to ION. (Doc. No. 611, Ex. 14.) The Court finds that this is sufficient. Discovery after trial is the exception and not the rule. ION has not shown the need for an exception. The Motion to Compel is denied.

B. Motion for a Permanent Injunction or, in the Alternative, an Ongoing Royalty (Doc. No. 558)

After the jury issued its verdict, ION's CEO announced ION's intention to "challenge the verdict," and stated that ION "ha[s] sufficient inventory of DigiFIN available to satisfy customer need." (Doc. No. 558, Ex. 1.) Media reports confirmed that, notwithstanding the verdict, "DigiFIN [] will remain available for sale." (Doc. No. 558, Ex. 3.) WesternGeco moves the Court to enter a permanent injunction or, in the alternative, award an ongoing royalty for the sales of ION's infringing products. (Doc. No. 558.) The Court finds that a permanent injunction is proper in this case.

1. Legal Standard

Courts have discretion to grant injunctive relief "in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable." 35 U.S.C. § 283. By virtue of the Supreme Court's decision in *eBay*, a patentee must satisfy the well-established four-factor test for injunctive relief before a court may grant a permanent injunction:

(1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391 (2006).

2. Permanent Injunction

The Court finds that a permanent injunction is proper. ION stated multiple times to the Court that "[f]ollowing the Court's finding of infringement, ION immediately ceased selling DigiFIN." (Doc. No. 577 p. 22; Doc. No. 559 p. 24.) ION represented the same to the jury:

Q. Sir, after you were found to infringe . . . You didn't stop offering those products for sale, did you?

A. In fact, we have no sold that product since then.

Q. So when did you stop selling DigiFIN, sir?

A. Well, I said stop selling – yea, we – when that happened, when the – when the Court made that ruling.

Q. So you made a business decision that at that point, you would no longer sell DigiFIN?

A. Yea. Until the case is solved – resolved. We are not done yet.

(Trial Tr. 4491:15-4492:1.) However, ION's post trial accounting reveals that this assertion was false and ION did sell more DigiFIN after the Court's ruling and even after trial. The Court finds these misstatements deeply troubling.

ION claims that a September 2012 sale was not a sale because the contract for the infringing product occurred in March 2012. The Court cannot accept this thinly veiled excuse. It also appears that ION shipped DigiFIN abroad from the United States to ION Dubai, which continues to make sales. The Court need not delve into whether this conduct infringed § 271(f) at this time because the misleading statements and the September 2012 sale are enough for the Court to find that all four factors of *MercExchange, L.L.C.* weigh in favor of a permanent injunction. First, WesternGeco has suffered injury and may continue to suffer injury since ION has shown that it will continue to infringe. Second, since ION has not followed the Court's order, no remedy at law can fully compensate WesternGeco besides an injunction. Third, the Court does not find particular hardships to ION. Fourth, there is no evidence that an injunction will disserve the public. In fact, ION's disregard for the Court's order warrants a permanent injunction to support the public's interest in maintaining a strong patent system.

XV. CONCLUSION

For the reasons discussed above, the Court finds that:

1. ION's Partial Motion to Dismiss for Lack of Subject Matter Jurisdiction (Doc. No. 565) is **DENIED**;

2. ION's Rule 59 Motion for New Trial on Invalidity Under 35 U.S.C. §§ 102 and 103 (Doc. No. 550) is **DENIED**;
3. ION's Request for Findings and Conclusions on Enablement and, Alternatively, Motion for New Trial (Doc. No. 552) is **DENIED**;
4. ION's Renewed Motion for Judgment as a Matter of Law and Alternative Motion for New Trial Regarding Non-Infringement (Doc. No. 556) is **DENIED**;
5. ION's Motion for New Trial on Infringement Under 35 U.S.C. § 271(f)(2) (Doc. No. 557) is **DENIED**;
6. ION's Motion for JMOL and New Trial Due to Incorrect Claim Construction (Doc. No. 561) is **DENIED**;
7. ION's Motion for Entry of Findings and Conclusions of No Willful Infringement, Renewed Motion for Judgment as a Matter of Law of No Willful Infringement, and Alternative Motion for New Trial (Doc. No. 559) is **GRANTED**;
8. WesternGeco's Motion for Willfulness and Enhanced Damages (Doc. No. 560) is **DENIED**;
9. WesternGeco's Motion to Find this Case Exceptional Under Section 285 and for Attorneys' Fees (Doc. No. 554) is **DENIED**;
10. ION's Motion for JMOL, Motion for New Trial on Damages alternatively Motion for Remittitur (Doc. No. 562) is **DENIED**;
11. WesternGeco's Motion for Prejudgment Interest and Post-Discovery Damages (Doc. No. 553) is **GRANTED**;
 - a. Prejudgment interest will be calculated at the prime rate, compounded annually. ION is ordered submit calculations on the jury award within ten days.
 - b. Supplemental damages are proper for ION's sales after May 2011. WesternGeco is ordered to submit a motion regarding supplemental damages within 15 days.
12. WesternGeco's Motion for Costs (Doc. No. 555) is **GRANTED in part and DENIED in part**;
 - a. WesternGeco may recover costs in the amount of \$438,388.48
13. ION's Motion to Compel Production of Documents From WesternGeco (Doc. No. 609) is **DENIED**;

14. WesternGeco's Motion for a Permanent Injunction or, in the Alternative, an Ongoing Royalty (Doc. No. 558) is **GRANTED**.

IT IS SO ORDERED.

SIGNED this 19th day of June, 2013.

A handwritten signature in black ink, appearing to read "Keith P. Ellison", written over a horizontal line.

KEITH P. ELLISON
UNITED STATES DISTRICT JUDGE