

FILED

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

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CLERK OF DISTRICT COURT
WESTERN DISTRICT OF TEXAS

BY 

**NATIONAL OILWELL VARCO, L.P.,
Plaintiff,**

-vs-

Case No. A-12-CA-773-SS

**OMRON OILFIELD & MARINE, INC.,
Defendant.**

ORDER

BE IT REMEMBERED on this day the Court reviewed the file in the above-styled cause, and specifically Defendant Omron Oilfield & Marine, Inc. (Omron)'s Motion to Exclude the Testimony of Kevin Brimage on Infringement Issues Pursuant to FRE 702 [#124], and Plaintiff National Oilwell Varco, L.P. (NOV)'s Response [#137]; NOV's Motion for Summary Judgment on Omron's Affirmative Defenses and Counterclaims of Unclean Hands and Inequitable Conduct [#127], Omron's Response [#141], and NOV's Reply [#143]; Omron's Motion to Dismiss, for Default Judgment, and for Summary Judgment [#134], NOV's Response [#140-2], Omron's Reply [#148-1], NOV's Letter Brief [#145], Omron's Letter Brief [#150], and NOV's Sur-Reply [#168]; and NOV's Motion to Bifurcate Omron's Equitable Affirmative Defenses and Counterclaims [#164], Omron's Response [#174], and NOV's Reply [#175]. Having considered the documents, the file as a whole, and the governing law, the Court enters the following opinion and order DISMISSING the case WITH PREJUDICE for lack of standing and, in the alternative, GRANTING summary judgment in favor of Omron on the grounds of invalidity and non-infringement.

Background

Plaintiff NOV filed this lawsuit on August 23, 2012, asserting Defendant Omron has infringed NOV's patent (U.S. Patent No. 5,474,142 or the '142 Patent). *See* Compl. [#1] ¶ 9. Specifically, NOV alleged Omron's rig automation control system having an automatic driller function infringes one or more of claims 1, 11, and 14 of the '142 Patent. *Id.* The Court issued its *Markman* Order on August 30, 2013, and days thereafter set the case for trial as soon as the Court's busy docket would allow: April 2015. *See* Orders of Aug. 30, 2013 and Sept. 5, 2013 [##54, 55].

On September 5, 2014, the Court allowed NOV to file an amended complaint whereby it removed claim 1—an apparatus claim—from its pleadings, leaving only claims 11 and 14—both method claims. *See* Order of Sept. 5, 2014 [#95]. Omron filed its answer to the amended complaint on September 22, 2014, reasserted counterclaims of invalidity and non-infringement, and asserted for the first time counterclaims of unclean hands and inequitable conduct. *See* Answer, Affirmative Defenses, and Countercls. to First Am. Compl. [#98].

While NOV never formally answered these counterclaims, it did file a Motion for Summary Judgment on Omron's Affirmative Defenses and Counterclaims of Unclean Hands and Inequitable Conduct [#127] on December 1, 2014. On December 4, 2014, Omron filed its Motion to Dismiss, for Default Judgment, and for Summary Judgment [#134]. The Court held a hearing on the pending motions on December 15, 2014. With the broader context in place, the Court now turns its attention to the substance of the motions.

Analysis

Through their filings, the parties have raised a host of issues, and the Court addresses them in the following fashion. First, Omron has claimed through its motion to dismiss that NOV lacks

standing, and as a threshold question, the Court must address jurisdiction. For reasons explained below, the Court finds NOV does indeed lack standing, raising the subsequent question of whether the dismissal should be with or without prejudice. For reasons also explained below, the Court concludes the dismissal should be with prejudice.

While a dismissal with prejudice could be the end of the matter, the Court further addresses, in the alternative, the merits of the case. Specifically, the Court discusses why, if NOV had standing, the Court would grant Omron's motion for summary judgment on the grounds of invalidity and non-infringement. This case, filed in August 2012, has consumed a significant amount of resources of the Court, the Court's staff, the Special Master, and the parties themselves. With trial finally approaching after more than two-and-a-half years of exhaustive litigation, the parties and the Court have done all the work the case requires for a disposition on the merits. Indeed, the parties have fully briefed the merits. Given this history, the prudent course is to consider the issues of validity and infringement in the alternative.

I. Omron's Motion to Dismiss for Lack of Standing

Omron argues NOV lacks standing because it cannot prove it owns the '142 Patent.

A. Jurisdictional Facts Concerning Ownership of the '142 Patent

The inventor of the '142 Patent is a man named Bobbie Bowden, and in roughly January 1992, he came up with his idea for an automatic driller system. Bowden applied for his patent on April 19, 1993, and the United States Patent and Trademark Office (USPTO) issued the patent on December 12, 1995. *Id.* According to the USPTO's "Abstract of Title," the '142 Patent has been assigned twice since December 1995. *See* Mot. Dismiss [#67-2] Ex. 1. First, Bowden assigned the

patent to Wildcat Services, L.P. on October 9, 2001. *Id.* Second, Wildcat Services, L.P. assigned the patent to MD/Totco, a Division of Varco, L.P., on June 30, 2004. *Id.*

In October 2013, Omron issued an interrogatory regarding standing, and NOV indicated that on January 1, 2006, National Oilwell Varco, L.P. (which had changed its name from National Oilwell, L.P. on December 22, 2005)¹ purchased the '142 Patent from Varco, L.P. *See id.* [#67-6] Ex. 5 (NOV's response to Interrogatory No. 6). NOV further stated: "Documents sufficient to substantiate these transactions will be produced including asset purchase agreements and assignment documents." *Id.* Ultimately, as proof of ownership, NOV produced a document titled "Assistant Secretary's Certificate," dated January 1, 2006. *See* Def.'s Resp. [#140-9] Ex. 6 (Assistant Secretary's Certificate). Omron felt this certificate was deficient in that it was not an actual assignment, and it only assigned "physical assets." Omron therefore requested production of the Asset Contribution Agreement (ACA) between National Oilwell, L.P. and Varco, L.P. NOV's counsel refused to produce a copy of the agreement, stating:

The document is not relevant to any claim or defense in this lawsuit. The Secretary's Certificate shows that all assets of Varco, L.P. were sold to National Oilwell including the '142 Patent. The Asset Contribution Agreement would be cumulative and is not needed.

Mot. Dismiss [#67-7] Ex. 6 (emails between counsel).

Dissatisfied with this position, Omron filed a Motion to Dismiss for lack of standing on April 25, 2014. Omron argued the Assistant Secretary's Certificate was insufficient, NOV had refused to

¹ In its response to the pending motion to dismiss, NOV asserts National Oilwell, L.P. changed its name to National Oilwell Varco, L.P. on January 26, 2006. *See* Def.'s Resp. [#140-2] at 2. The Court is unclear on which of these proffered dates is the correct one.

produce the ACA, and NOV's standing position was inconsistent with positions it had previously taken in prior lawsuits. Specifically, Omron described three previous lawsuits.

First, in a lawsuit filed in 2003 in the District of Colorado, Varco, L.P. was the plaintiff suing defendant Pason (the Pason Case) for infringement of the '142 Patent. *See id.* [#67-9] Ex. 8 (docket sheet from the Pason Case). In the Pason case, Varco, L.P. continued to assert ownership of the '142 Patent as late as May 1, 2006. *See id.* [#67-12] Ex. 11 at 1–2, ¶ 6 (Varco L.P.'s amended complaint). Yet in this case, NOV contends Varco, L.P. transferred all of its assets to NOV on January 1, 2006.

To be clear, while National Oilwell, L.P. changed its name to National Oilwell Varco, L.P., National Oilwell Varco, L.P. and Varco, L.P. remain separate legal entities to this day. Mot. Dismiss, Mot. Default J. & Mot. Summ. J. [#134-2] Ex. 3 (Goss Dep.) 22:14–18. According to the most recent SEC filings, they are separate subsidiaries of non-party National Oilwell Varco, Inc. *See id.* [#67-4] Ex 3. In January 2008 in the Pason Case, however, NOV became the plaintiff in place of Varco, L.P. and represented to the court that “Plaintiff, formerly known as Varco, L.P. has recently undergone a name change and is now National Oilwell Varco, L.P.” *Id.* [#67-13] Ex. 12. NOV ultimately obtained a judgment against Pason, and the jury found NOV suffered lost profits in the amount of \$14,320,283 and supplemental lost profits of \$1,768,270. *See id.* [##67-14, -15] Exs. 13 (Final Judgment), 14 (Findings and Order for Judgment).

Second, Omron directs the Court's attention to a parallel action against Pason in Canada for infringement of the Canadian counterpart to the '142 Patent (the Canadian Case). The named plaintiffs included Varco, L.P., Varco Canada Limited, Wildcat Services, L.P., and Wildcat Services Canada, ULC. *See id.* [#67-17] Ex. 16 (Reasons for Judgment). NOV was not a party and was not mentioned in the Reasons for Judgment dated August 12, 2013. *Id.* The judge concluded Varco,

L.P. owned the Canadian counterpart to the '142 Patent, but as Omron highlights, NOV claims in this case Varco, L.P. transferred all of its assets, including patents, to NOV in January 2006.

Third, NOV sued Auto-Dril in the Eastern District of Texas in 2009 (the Auto-Dril Case). *See id.* [#67-18] Ex. 17 (docket sheet from the Auto-Dril Case). In October 2011, Auto-Dril filed a motion to dismiss based on lack of standing. *Id.* at ECF #162. In its response, NOV asserted and relied upon the Assistant Secretary's Certificate. *See id.* [#67-19] Ex. 18. Auto-Dril filed a reply arguing the certificate was insufficient to establish ownership and standing because it merely indicates a transfer of "physical assets," not intellectual property. *See id.* [#67-20] Ex. 19. On the same day as Auto-Dril's reply, however, the parties filed a joint motion to dismiss the action, citing a confidential settlement agreement signed the day before. *See id.* [#67-21] Ex. 20.

In its response to Omron's motion to dismiss, NOV—for the first time—produced the ACA, which is the actual document NOV claims transferred the '142 Patent from Varco, L.P. to NOV. Specifically, NOV argued the ACA "provides further evidence of [NOV's] ownership of the '142 Patent" because it "explicitly lists 'Patents' owned by Varco, L.P. as part of the physical assets that were transferred from Varco, L.P. to NOV on January 1, 2006." Def.'s Resp. [#68] at 5. Omron replied and objected to the late disclosure of the ACA while also contending it too is insufficient to establish NOV's ownership of the patent. Pl.'s Reply [#77] at 1. The Court denied the motion to dismiss without prejudice to refile at a later date. *See* Order of May 29, 2014 [#78].

Omron has now refiled its motion to dismiss for lack of standing. Omron puts forth three arguments. First, Omron contends the ACA lacks a present assignment of assets. Second, Omron argues, even if there were a present assignment, the assignment is limited to "physical assets," which cannot include patents. Third, Omron asserts, even if there were a present assignment and even if

patents could be considered physical assets, the ACA simply does not relate to the '142 Patent. Finally, Omron urges the Court to dismiss the case with prejudice based on what it claims to be bad faith and willful abuse of the judicial process by NOV.

B. Legal Standard—Standing

Standing is a constitutional requirement pursuant to Article III, and it is a threshold jurisdictional issue.² *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560–61 (1992). The Federal Circuit has held “[a]lthough state law governs the interpretation of contracts generally . . . the question of whether a patent assignment clause creates an automatic assignment or merely an obligation to assign is intimately bound up with the question of standing in patent cases.” *DDB Techs. L.L.C. v. MLB Advanced Media, L.P.*, 517 F.3d 1284, 1290 (Fed. Cir. 2008). Therefore, the Federal Circuit treats it as a question of federal law.³ *Id.*

² NOV flaccidly contends Omron does not have “standing” to challenge the meaning of the ACA because “[o]nly parties to a contract can dispute the rights conveyed in a contract, unless a non-party can prove they are a third party beneficiary.” Def.’s Resp. [#140-2] at 3. This Court has an obligation to address standing, *sua sponte* if necessary, as it goes to the heart of whether jurisdiction exists. *See Gasch v. Hartford Accident & Indem. Co.*, 491 F.3d 278, 281 (5th Cir. 2007) (stating federal courts “may consider subject matter [jurisdiction] *sua sponte*, as ‘subject-matter delineations must be policed by the courts on their own initiative’”) (quoting *Ruhrgas AG v. Marathon Oil Co.*, 526 U.S. 574, 584 (1999)). There is no requirement Omron be a third party beneficiary to raise the issue of whether the ACA actually transferred the patent-in-suit, and the Federal Circuit regularly addresses similar challenges brought by non-parties to a contract. *See, e.g., Abraxis Bioscience, Inc. v. Navinta LLC*, 625 F.3d 1359, 1363–68 (Fed. Cir. 2010); *Bd. of Trs. of the Leland Stanford Junior Univ. v. Roche Molecular Sys.*, 583 F.3d 832, 841–42 (Fed. Cir. 2009); *IpVenture, Inc. v. Prostar Computer, Inc.*, 503 F.3d 1324, 1325–27 (Fed. Cir. 2007). NOV’s argument is baseless.

³ NOV indicates state law should apply, arguing “‘the question of who owns the patent rights and on what terms typically is a question exclusively for state courts.’” Def.’s Resp. [#140-2] at 2–3 (quoting *Jim Arnold Corp. v. Hydrotech Sys.*, 109 F.3d 1567, 1572 (Fed. Cir. 1997)). NOV’s legal proposition is correct, but the Federal Circuit has also repeatedly stated “‘although state law governs the interpretation of contracts generally . . . the question of whether a patent assignment clause creates an automatic assignment or merely an obligation to assign is intimately bound up with the question of standing in patent cases. We have accordingly treated it as a matter of federal law.’” *Abraxis*, 625 F.3d at 1365 (quoting *DDB Techs.*, 517 F.3d at 1290). Here, the precise issue is whether the ACA—which NOV claims transferred the '142 Patent from Varco, LP. to NOV—actually assigned the patent, or was merely an obligation to assign it in the future or concurrent with a separate assignment document. Therefore, federal law applies.

A court may exercise jurisdiction only if a plaintiff has standing to sue on the date it files suit. *Keene Corp. v. United States*, 508 U.S. 200, 207 (1993). Accordingly, the Federal Circuit has held in a patent infringement action “the plaintiff must demonstrate that it held enforceable title to the patent at the inception of the lawsuit” to assert standing. *Paradise Creations, Inv. v. UV Sales, Inc.*, 315 F.3d 1304, 1309–10 (Fed. Cir. 2003). Thus, “if the original plaintiff lacked Article III initial standing, the suit must be dismissed, and the jurisdictional defect cannot be cured” after the inception of the lawsuit. *Schreiber Foods, Inc. v. Beatrice Cheese, Inc.*, 402 F.3d 1198, 1203 (Fed. Cir. 2005).

The party bringing the action bears the burden of establishing it has standing. *Sicom Sys., Ltd. v. Agilent Techs., Inc.*, 427 F.3d 971, 976 (Fed. Cir. 2005). A plaintiff does not have a right to a jury trial on the jurisdictional issue of standing, and the court resolves any disputed jurisdictional facts. *DDB Techs.*, 517 F.3d at 1290–91.

C. Application

To satisfy its burden of showing it owned the ’142 Patent as of the filing of this lawsuit, NOV offers the ACA as well as the Assistant Secretary’s Certificate and tax records. Because a patent assignment must be in writing, the Court focuses its attention on the ACA—the only document which could even be considered a written assignment. *See* 35 U.S.C. § 261 (“Applications for patent, patents, or any interest therein, shall be assignable in law by an instrument in writing.”); *Sky Techs. LLC v. SAP AG*, 576 F.3d 1374, 1379 (Fed. Cir. 2009) (“The Federal Patent Act requires that all assignments of patent interest be in writing.”) (citing 35 U.S.C. § 261). The ACA describes “Contributor” Varco L.P.’s “desire” to and “agreement” to contribute assets to the “Partnership”

National Oilwell, L.P., which had been renamed National Oilwell Varco, L.P. on December 22, 2005 (or January 26, 2006).⁴ The ACA provides in relevant part:

WHEREAS, Contributor desires to contribute all of its physical assets, including but not limited to those assets generally described in Exhibit A (the “Property”), excluding any capital or common stock of subsidiaries or owned companies.

...

1.1 Agreement to Contribute Property and Issue Partnership Interest. For and in consideration of the mutual benefits enjoyed by one another under this Agreement, Contributor agrees to transfer and convey or assign all of Contributor’s right, title, and interest in and to the Property to Partnership, and Partnership agrees to accept the contribution and conveyance of the Property and, in exchange therefore, to issue a limited partnership interest in Partnership to the Contributor, pursuant to the terms and conditions set forth in this Agreement.

1.2 Conveyance of the Property. Concurrently with the execution of this Agreement, Contributor shall convey, assign, and transfer the Property to Partnership, subject only to the liens, encumbrances, security interests, restrictions, and claims of public record or referenced on Exhibit A. Contributor shall execute and deliver any and all documents or instruments as may be required, or which may be reasonably requested, by Partnership in order to effect and memorialize such conveyance, assignment, and transfer.

Mot. Dismiss, Mot. Default J. & Mot. Summ. J. [#134-1] Ex. 2 (the ACA).

Exhibit A is a lengthy spreadsheet with a variety of entries. *Id.* The rows list entries for various types of assets, liabilities, equities, and revenues, and the columns list various divisions of Varco, L.P. *Id.* The only entry related to patents is a row titled “Patents - Patents.” *Id.* Every column in this row—including the column for MD/Totco—has an entry of “0” except for the column for Varco LP Brandt, which has an entry of “129,647.” *Id.*; Goss Dep. 103:12–107:2 (confirming the columns respectively corresponding to Varco LP Brandt and MD/Totco and their respective entries).

⁴ See *supra* note 1.

1. The ACA is not a present assignment of assets

Omron first argues the ACA fails to show NOV's ownership of the '142 Patent because its plain language, as a matter of law, is a promise to assign in the future. Specifically, the ACA only states Varco, L.P. "agrees to assign," in the future in section 1.1, and does not presently assign any assets using language like "hereby assigns." Moreover, section 1.2 provides Varco, L.P. "shall convey, assign, and transfer" the assets "[c]oncurrently with the execution of this Agreement," and "shall execute and deliver" any documents required to effect such conveyance, assignment, and transfer. NOV's Rule 30(b)(6) designee on standing topics, Craig Goss, testified no conveyance documents were separately executed, and the ACA document alone transferred all of the assets. Goss Dep. 72:12–73:10.

The Federal Circuit has found "contract language stating that a party 'agrees to assign' reflects a mere promise to assign rights in the future, not an immediate transfer of expectant interests." *Abraxis*, 625 F.3d at 1365 (citing *IpVenture*, 503 F.3d at 1327 (interpreting "agree to assign" as "an agreement to assign," requiring a subsequent written instrument); *Arachnid, Inc. v. Merit Indus., Inc.*, 939 F.2d 1574, 1580–81 (Fed. Cir. 1991) (holding that "will be assigned" does not create "a present assignment of an expectant interest")); *see also DDB Techs.*, 517 F.3d at 1290 (comparing "agrees to assign" as a mere promise to assign in the future with "does hereby grant and assign" as a present assignment); *Roche*, 583 F.3d at 841–42 (same).

NOV fails to directly confront this language and precedent. Instead, NOV simply contends the language of the ACA unambiguously conveyed all of Varco, L.P.'s property to NOV. *See* Def.'s Resp. [#140-2] at 3–4. The Court agrees the language is unambiguous, but disagrees it was a present

assignment. The ACA's language, including words like "desires to," "agrees to assign," and "shall assign" constituted a promise to assign under Federal Circuit law, not an actual assignment.

NOV attempts to overcome the Federal Circuit precedent by suggesting the cases relied upon by Omron—*IpVenture*, *Roche*, and *DDB Technologies*—were employment agreements whereby the employee agreed to assign an invention to the employer if an invention is developed in the future. NOV contrasts this employment situation regarding future inventions to the instant one involving an asset contribution agreement supposedly assigning a patent already in existence. *See id.* at 6–7. The Court appreciates this distinction and acknowledges the logic of NOV's contention. But NOV fails to effectively distinguish the Federal Circuit's opinion in *Abraxis*, a non-employment situation with facts closely resembling those in this case.

In *Abraxis*, the defendant disputed a 2006 "Asset Purchase Agreement" (APA) was an assignment of existing patents. *Abraxis*, 625 F.3d at 1360–61. The APA indicated the seller "shall" transfer and the buyer "shall" accept "all of the right, title and interests" of the seller in the asserted patents. *Id.* at 1361. Following the execution of the APA, the parties executed a separate written Intellectual Property Assignment Agreement. *Id.* In addressing the defendant's standing argument, the Federal Circuit relied on the employment cases and their distinction between future assignment language like "agrees to assign" or "shall assign" and present assignment language like "hereby assigns." *Id.* at 1363–65 (citing *DDB Techs.*, 517 F.3d at 1290; *Roche*, 583 F.3d at 841–42; *IpVenture*, 503 F.3d at 1327). The court found the APA's language using "shall" indicated the actual transfer of the asserted patents was to occur in the future and by means of a separate IP Assignment

Agreement. *Id.* at 1365. Ultimately, the Federal Circuit reversed the district court's finding of infringement and remanded for dismissal based on lack of standing.⁵

The Court notes the dissent in *Abraxis* found the majority's reliance on federal law and, in particular, its reliance on the "promise to assign" line of cases was incorrect because they each involved the assignment of future inventions. *See id.* at 1371 (Newman, J., dissenting). In other words, the dissent took the same position as NOV in that state law should apply, and even if federal law applied, the "promise to assign" cases are inapplicable. The majority opinion, however, specifically rejected both propositions and made the opposite conclusions. *Id.* at 1365–66.

In sum, the prevailing Federal Circuit case law makes clear the "agrees to assign" language in the ACA was not a present assignment. The ACA further indicates Varco, L.P. was to issue a separate assignment document, but there is no such piece of paper. Because NOV is unable to show the ACA was a present assignment of assets, the Court finds, on this ground alone, NOV has failed to satisfy its burden of proving ownership and, consequently, standing to sue.

⁵ In *Abraxis*, there was a break in the chain of title, and it turned out the "seller" under the APA did not, in fact, own the relevant patents at the time of the execution of either the APA or the IP Assignment Agreement. *Abraxis*, 625 F.3d at 1361–62. Therefore, the seller had no legal title to assign to the purchaser. *Id.* at 1365. The parties had attempted to retroactively cure their error via *nunc pro tunc* provisions issued subsequently, but the court concluded this attempt to cure was futile. *Id.* at 1365–66. NOV suggests this factual distinction regarding the break in the chain of title makes *Abraxis* inapplicable to this case. *See* Def.'s Sur-Reply [#168] at 1. NOV is mistaken. *Abraxis* is directly applicable and, critically, illustrates the "promise to assign" line of cases from the employment context also controls cases involving asset purchase agreements purporting to assign already existing patents. The fact the seller in *Abraxis* happened to not actually have title to the patents at issue at the time of the executions of the APA and IP Assignment Agreement offers little meaning to this case. Put differently, if the seller in *Abraxis* had actually owned title at the time of the APA and IP Assignment Agreement, the assignment would have been valid because the APA used future-oriented "shall" language, and the IP Assignment Agreement actually assigned the patents. NOV's problem is not that Varco, L.P. did not own the '142 Patent at the time of the ACA (although the Court does not even find this to be clear from the record); NOV's problem is that the ACA used future-oriented assignment language just like the APA in *Abraxis*, but there was no separately executed actual assignment document akin to the IP Assignment Agreement in *Abraxis*.

2. The '142 Patent is not a "physical asset"

Second, Omron contends, even if the ACA did amount to a present assignment of assets, the ACA only assigned Varco, L.P.'s "physical assets," and patents are not physical assets. The ACA provides Varco, L.P. "desires to contribute all of its physical assets, including but not limited to those assets generally described in Exhibit A (the "Property")." The question, therefore, is the meaning of "physical asset." The ACA states it "shall be construed and interpreted in accordance with the substantive internal laws of the State of Delaware."⁶ The ACA § 4.6.

Omron cites two examples from Delaware law indicating patents are not physical assets. First, Omron cites a provision of the Delaware Securities Act regarding the registration of securities. Specifically, the provision lists the information and documentation which must accompany a registration statement, including "the capitalization and long-term debt . . . of the issuer . . . and a statement of the amount and kind of consideration (whether in the form of cash, *physical assets*, services, *patents*, goodwill, or anything else)" 6 Del. Code § 73-204(b)(7) (emphasis added). Second, Omron cites Delaware Superior Court authority, noting "an 'intangible asset' is property that is a 'right,' such as a trademark, lease, or *patent*, or *which lacks a physical existence*, such as goodwill or going concern value. It is a *non-physical*, non-current asset which exists only in connection with something else, such as the goodwill of a business." *Chesapeake Utils. Corp. v.*

⁶ To be clear, the Court's consideration of state law in this section is not inconsistent with its reliance on federal law in the previous section regarding whether the ACA was a present assignment or a promise to assign. As previously stated, "the question of who owns the patent rights and on what terms typically is a question exclusively for state courts." *Jim Arnold Corp.*, 109 F.3d at 1572. Only when the issue is "whether a patent assignment clause creates an automatic assignment or merely an obligation to assign" does federal law apply. *Abraxis*, 625 F.3d at 1365. Here, in addressing the meaning of "physical assets," the Court is considering who owns the '142 Patent and on what terms, not whether the ACA created an automatic assignment or merely an obligation to assign. Accordingly, state law applies.

Del. PSC, 705 A.2d 1059, 1070 (Del. Super. Ct. 1997) (citing 64 AM. JUR. 2D *Public Utilities* §§ 165–72; BLACK’S LAW DICTIONARY at 808–09 (6th ed. 1990)) (emphasis added).

NOV asserts the ACA defines “Patents” as physical assets because “Patents - Patents” appears as an entry on Exhibit A. *See* Def.’s Letter Brief [#145] at 2. Following this logic, everything listed in Exhibit A is a physical asset. But this cannot be the case because Exhibit A includes entries which are even more obviously non-physical assets than a patent. For instance, Exhibit A includes “goodwill” as well as items that are not even assets at all, such as amortizations, a long list of liabilities, and taxes. *See* the ACA, Ex. A. The most coherent reading of the ACA is that Varco, L.P. intended to transfer all of the Property to NOV, and the Property is the physical assets listed in Exhibit A, not everything in Exhibit A or all assets in Exhibit A.

The Court agrees with Omron that a patent is not a physical asset. While Omron’s sources are not directly on point in that they derive from securities law and public utilities law, respectively, they generally indicate a difference between a physical asset and an intangible, non-physical asset. A patent would fall under the latter definition. Moreover, NOV’s position is untenable and makes no serious attempt to define “physical asset,” instead effectively reading the word “physical” out of the ACA entirely.

Therefore, even if the ACA had actually transferred assets, it only transferred “physical assets,” which cannot include the ’142 Patent.

3. The ACA does not cover the ’142 Patent

Third, Omron argues, even if the ACA had actually transferred assets and even if patents were considered “physical assets,” the ACA still would not have specifically transferred the ’142 Patent. The Court agrees. As described above, the inventor Bowden assigned the ’142 Patent to

Wildcat Services, L.P. on October 9, 2001, and Wildcat Services, L.P. assigned the patent to MD/Totco, a division of Varco, L.P. on June 30, 2004. *See* Dodd Aff. [#130-5] Ex. 5 (assignment from Wildcat Services to MD/Totco). There is no suggestion by the parties that MD/Totco assigned the patent prior to January 1, 2006. Yet Exhibit A to the January 1, 2006 ACA shows a “0” where “Patents - Patents” intersects with MD/Totco. The only Varco, L.P. division with a non-zero entry for the “Patents - Patents” row is “Varco LP-Brandt Conroe,” and no party suggests this division ever had anything to do with the ’142 Patent. NOV’s Rule 30(b)(6) designee on standing confirmed these facts in his deposition. *See* Goss Dep. 103:12–107:2. Notably, at NOV’s Rule 30(b)(6) designee’s deposition, the following exchange occurred:

Q: (BY MS. DODD) So, sitting here today you don’t know which patents are indicated on this line item of Exhibit A, correct?

A: No, I don’t.

Id. 99:11–14; *see also id.* 98:8–11, 136:7–137:1.

In the face of these undisputed, devastating facts, NOV promotes a number of unavailing arguments. First, NOV again insists the ACA transferred all of Varco, L.P.’s assets, including the ’142 Patent, and Exhibit A was never meant to be an exhaustive list of all the assets but rather “an example of the type of assets that were owned by Varco, L.P. that were transferred to [NOV].” Def.’s Letter Brief [#145] at 3 (quoting Goss Dep. 93:5–22). The argument strains the Court’s credulity, but even if Exhibit A were merely an example, NOV cannot account for the “0” entry for MD/Totco’s patents. NOV does not dispute MD/Totco was the owner of the ’142 Patent as of December 31, 2005, and it cannot dispute Exhibit A indicates no patents from MD/Totco were

transferred to NOV on January 1, 2006. Yet NOV still wants the Court to accept the '142 Patent was transferred.

Grasping at straws, NOV suggests the "0" figure indicates revenue and because the '142 Patent was not creating revenue in 2006, the "0" only makes sense. *See* Def.'s Reply [#143] at 6. NOV's argument makes little sense. For one, there is an entirely different section of Exhibit A dedicated to revenues. In addition, there are listings in the same section as "Patents - Patents" which cannot possibly refer to revenue. For instance, there is an entry for "Furniture and Fixtures" at \$44.5 million and another for "Goodwill" at \$8.7 million. Certainly, Varco, L.P.'s furniture and fixtures were not generating \$44.5 million in revenue in 2006. Instead, these numbers represent the value of the assets being transferred. Therefore, because the '142 Patent has a non-zero value, it cannot be encompassed in the "0" entry under MD/Totco. Either Varco, L.P. did not own the '142 Patent on January 1, 2006, or it did not transfer the '142 Patent on January 1, 2006.

Second, NOV cites three cases for the notion that patents can be transferred pursuant to agreements which transfer "all" assets without identifying specific patent numbers. *See* Def.'s Letter Brief[#145] at 3–5. The argument is a strawman as Omron never suggested otherwise, and the cases NOV cites actually support Omron's position along with the conclusion the ACA failed to assign the '142 Patent. In *Tyco Healthcare Group LP v. Ethicon Endo-Surgery, Inc.*, 587 F.3d 1375 (Fed. Cir. 2009), the contribution agreement at issue provided for the assignment of "all of the assets, properties, and businesses," and there was no dispute "[t]he transferred assets included patents, except '[a]ny and all patents and patent applications relating to any pending litigation involving [the contributor].'" *Id.* at 1377. In contrast, the ACA contemplates the transfer of "all physical assets," and even still, there is a dispute about what patents are covered. In *Kennedy v. Wright*, 676 F. Supp.

888 (C.D. Ill. 1988), the asset purchase agreement provided for the transfer to the buyer of “any and all patents” owned by the seller. *Id.* at 893. The ACA did not provide for the transfer of “any and all patents.” Finally, in *EMD Bioscience Inc. v. Becker Underwood, Inc.*, 750 F. Supp. 2d 1004 (W.D. Wis. 2010), the court found the language of the dissolution agreement to unambiguously cover patents as it provided the transferor “hereby conveys, assigns, transfers and delivers to [transferee] all of its right, title, estate and interest to all its property, assets, business and undertaking, both real and personal, movable and immovable, wherever situate” *Id.* at 1013. The ACA was not so broad and only conveyed “all of [Varco, L.P.’s] physical assets.” Moreover, the court in *EMD Bioscience* found nothing about the agreement’s language made it an “agreement to assign” at a later time and cited to the “promise to assign” cases like *Roche* and *IpVenture*.⁷ *Id.* The ACA, on the other hand, precisely uses the “agrees to assign” phrase.

Therefore, leaving aside the conclusions the ACA was not a present assignment and patents are not physical assets, the ACA simply did not transfer the ’142 Patent.

4. The role of extrinsic evidence

In the end, NOV hopes the Court will ignore the unambiguous language of the ACA and resort to extrinsic evidence. Specifically, NOV wants the Court to consider the testimony of National Oilwell, L.P.’s in-house CPA at the time of the ACA and a Varco, L.P. employee as evidence of the parties’ intent to transfer all of Varco, L.P.’s assets, including the ’142 Patent, to NOV. *See* Def.’s Resp. [#140-2] at 5–6. The Federal Circuit rejected this approach in *Gaia*

⁷ The Court notes *EMD Bioscience* involved transfer of already existing patents by a dissolution agreement, and the fact the *EMD Bioscience* court cited to the “promise to assign” cases (along with its distinction between present and future assignments) only further supports the Court’s reliance on *Abraxis* to apply the “promise to assign” cases outside the employment context concerning future inventions.

Technologies, Inc. v. Reconversion Technologies, Inc., 93 F.3d 774, 778–80 (Fed. Cir. 1996). In that case, the plaintiff attempted to rely on board meeting minutes to show there was an agreement to transfer the patents-in-suit, but the Federal Circuit found this insufficient in the absence of a written agreement:

At bottom, the relevant statutes require an assignment of patents and registered trademarks to be in writing. [The plaintiff] has failed to come forward with the requisite evidence necessary to establish that an assignment, in writing, of the Intellectual Property took place before the lawsuit was filed. Absent legal title of the Intellectual Property, [the plaintiff] lacked standing to bring the patent and registered trademark claims against the defendants.

Id. at 779–80.

Even if the Court did consider the extrinsic evidence, it is not as clear as NOV suggests. NOV offers three pieces of extrinsic evidence. First, the deposition testimony NOV cites indicates the deponents understood the ACA to transfer all of Varco, L.P.’s assets, including the ’142 Patent, to NOV. NOV also presents tax records indicating Varco, L.P. had \$376 million in assets at the beginning of 2006 and none at the end of 2006. *See* Def.’s Resp. [#140-10] Ex. 7 (2006 tax records); Goss Dep. 111:14–112:4. Third, NOV presents the Assistant Secretary’s Certificate, but this document only provides that Varco, L.P had “entered into an agreement to contribute all of its physical assets” to NOV, which contains the same problems from the ACA previously discussed.

In addition to NOV’s extrinsic evidence, Omron has presented extrinsic evidence indicating Varco, L.P. did not transfer the ’142 Patent to NOV. The evidence includes: (1) in May 2006, Varco, L.P. alleged it owned the ’142 Patent in the Pason Case; (2) in 2008, Varco, L.P. told the court in the Pason case it had recently undergone a name change to become NOV; (3) in 2009,

Varco, L.P. told the USPTO it owned the '142 Patent;⁸ and (4) through 2013, Varco, L.P represented it owned the Canadian counterpart to the '142 Patent in the Canadian Case. All of these examples indicate Varco, L.P. did not transfer all of its assets, including the '142 Patent, to NOV in January 2006, or, at a minimum, makes unclear what exactly occurred.

5. Summary

In sum, NOV bears the burden of establishing its ownership of the '142 Patent and in attempting to meet this burden, it has presented the ACA. The ACA, however, fails as a written assignment of the '142 Patent. First, the ACA was an agreement to assign, not a present assignment, of assets. Second, even if it were a present assignment of assets, the only assets referenced were “physical assets,” which do not include patents. Third, even if the ACA presently assigned assets and physical assets included patents, the ACA does not, by its own terms, cover the '142 Patent. NOV cannot circumvent the written assignment requirement by arguing the unambiguous ACA is ambiguous and resorting to self-serving testimony and other extrinsic evidence, especially when there is extrinsic evidence indicating the opposite. Therefore, unable to prove ownership of the '142 Patent as of the filing date of this lawsuit, NOV lacks standing—an incurable deficiency. The Court must dismiss NOV’s claims for lack of jurisdiction.

D. The dismissal is with prejudice

Omron urges the Court to dismiss the case with prejudice based on its contention NOV has acted with bad faith and willfully abused the judicial process. *See* Mot. Dismiss, Mot. Default J. & Mot. Summ. J. [#134] at 7 (citing Fifth Circuit cases). As evidence of the claimed bad faith and

⁸ *See* Def.’s Mot. Dismiss [#130-9] Ex. 9 (statement to USPTO indicating MD/Totco owned the '142 Patent as of July 2009).

willful abuse, Omron points to examples of NOV's behavior both in previous lawsuits and the instant one, and the Court summarizes these examples, some of which have previously been discussed in sections I(A) and I(C)(4):

- (1) On May 1, 2006, Varco, L.P.'s counsel (which included Robert Bowick) told the court in the Pason case that Varco, L.P. owned the '142 Patent. Here, NOV's counsel (which includes Bowick) is claiming Varco, L.P. transferred the '142 Patent to NOV on January 1, 2006.
- (2) On January 15, 2008, Varco, L.P.'s counsel (which then included Bowick and John Raley) told the court in the Pason case that Varco, L.P. had "recently undergone a name change and is now National Oilwell Varco, L.P." But the record in this case shows Varco, L.P. and National Oilwell Varco, L.P. remain, to this day, separate legal entities. Furthermore, in this case, NOV's counsel (Bowick and Raley) have claimed National Oilwell, L.P. underwent a name change and became National Oilwell Varco, L.P., and NOV has presented both December 22, 2005, and January 26, 2006 as the dates when that name change occurred.
- (3) On December 3, 2009, in-house counsel for NOV (Cormac Creaven) filed a statement with the USPTO indicating the '142 Patent was owned by "MD/Totco, a division of Varco, L.P." In this case, NOV claims Varco, L.P. transferred the '142 Patent to NOV in January 2006 and cites an affidavit from Creaven confirming the ACA did, in fact, transfer the patent to NOV.⁹ The statement to the USPTO is also inconsistent with the notion Varco, L.P. changed its name to NOV.
- (4) On November 4, 2011, NOV's counsel (Bowick and Bradford Laney), in responding to a motion to dismiss for lack of standing in the Auto-Dril Case, claimed—as they do in this case—Varco, L.P. transferred the '142 Patent to NOV via the ACA on January 1, 2006.
- (5) On August 12, 2013, the court in the Canadian Case—to which NOV was not a party—indicated Varco, L.P. owned the Canadian counterpart to the '142

⁹ NOV claims "its in-house counsel, previously an employee of Varco, also confirmed that the ACA transferred the '142 Patent." Def.'s Resp. [#140-2] at 6 n.8 (citing "Affidavit of Cormac Creaven. (A89-91)"). The affidavit on pages A89-91 of NOV's appendix is indeed from Creaven, but it is unrelated to the ACA and whether it transferred the '142 Patent. The Court, however, recognizes the affidavit as NOV filed it in support of its opposition to Omron's motion to disqualify NOV's counsel for issues unrelated to those in this motion. See Def.'s Mot. Leave [#103-17] Ex. T (Creaven Aff.). The Court presumes this was an accident, but as a result the Court does not see in the record an affidavit from Creaven "confirm[ing] that the ACA transferred the '142 Patent."

Patent. This decision is inconsistent with NOV's claim in this case that Varco, L.P. transferred all of its assets to NOV, and it is inconsistent with the representation in the Pason Case that Varco, L.P. had changed its name to NOV.

- (6) In October 2013, during this case, Omron issued an interrogatory requesting proof of ownership of the '142 Patent, and NOV responded: "Documents sufficient to substantiate these transactions will be produced including asset purchase agreements and assignment documents." When NOV ultimately only produced the Assistant Secretary's Certificate, Omron specifically requested the ACA, but NOV responded in March 2014 that the ACA is "not relevant to any claim or defense in this lawsuit," and it "would be cumulative and not needed."
- (7) On May 9, 2013, NOV responded to Omron's motion to dismiss in this case by producing—for the first time—the ACA and arguing it provides evidence of NOV's ownership of the '142 Patent because it explicitly lists "Patents" as part of the physical assets that were transferred from Varco, L.P. to NOV on January 1, 2006. Yet on August 26, 2014, NOV's 30(b)(6) designee on the issue of standing testified he does not know whether the "Patents" listed in Exhibit A to the ACA included the '142 Patent, and Exhibit A was only an example of the type of assets transferred.

Omron argues these examples demonstrate a pattern of bad faith and willful abuse of the judicial process sufficient to warrant a dismissal with prejudice. The Court finds these examples reveal, at a minimum, a pattern of inconsistencies and a lack of clarity regarding the corporate relationships of Varco, L.P., National Oilwell, L.P., and National Oilwell Varco, L.P., as well as which of these entities actually owned the '142 Patent and when or if the '142 Patent was actually assigned. The Court can see how these examples could give rise to an inference of bad faith and willful abuse of the judicial process as Omron suggests, but the Court elects not to go down that road. Instead, the Court finds dismissal with prejudice appropriate on another basis.

The "general principle" is it is within the district court's discretion whether to dismiss a case with or without prejudice. *See H.R. Techs., Inc. v. Astechologies, Inc.*, 275 F.3d 1378, 1385 (Fed.

Cir. 2002). “Ordinarily, dismissal for lack of standing is without prejudice,” but “[o]n occasion, however, a dismissal with prejudice is appropriate, especially where ‘it [is] plainly unlikely that the plaintiff [will be] able to cure the standing problem.’” *Fieldturf, Inc. v. Sw. Recreational Indus., Inc.*, 357 F.3d 1266, 1269 (Fed. Cir. 2004) (citing *H.R. Techs.*, 275 F.3d at 1385 and quoting *Textile Prods., Inc. v. Mead Corp.*, 134 F.3d 1481, 1483 (Fed. Cir. 1998)). In *Textile Products*, a plaintiff, in order to cure its standing problem, would have needed to renegotiate the license agreement with a hostile defendant in order to acquire legal rights sufficient to be considered a patentee. *Textile Prods.*, 134 F.3d at 1483. The Federal Circuit affirmed the district court’s dismissal with prejudice “because Textile had its chance to show standing and failed.” *Id.* at 1485.

Similarly, NOV has had ample opportunity to decontaminate the mess it has made concerning ownership of the ’142 Patent. From the Pason Case to the USPTO to the Canadian Case to the Auto-Dril Case and now through this very case, NOV has been unable to present a consistent, coherent picture regarding which entity actually has title to the ’142 Patent. In the event there is any doubt NOV was aware of the web of confusion it was weaving, it certainly became directly aware of these issues when Auto-Dril filed a motion to dismiss for lack of standing in October 2011. When NOV responded with the Assistant Secretary’s Certificate, Auto-Dril replied with the same arguments put forth by Omron in this case. Nevertheless, approximately nine months after the Auto-Dril case settled, NOV filed the current suit against Omron without first filling the void that has now consumed this matter: the absence of a written assignment, as required by law, of the ’142 Patent from Varco, L.P. to NOV.

NOV has long evaded this reality and in so doing has made numerous conflicting representations. In this case alone, NOV has gone from suggesting the ACA was “not relevant to

any claim or defense in this lawsuit,” “cumulative,” and “not needed,” to now relying on it as the supposed assignment document. Or consider the direct contradiction between NOV’s argument the ’142 Patent was covered by the ACA because Exhibit A explicitly listed “Patents,” and the subsequent admission by NOV’s 30(b)(6) designee that he did not know and could not know whether Exhibit A covered the ’142 Patent.

Why NOV has declined to simply create a written assignment given the obvious problem presented by the existing paper, the Court can only speculate. But given this history and context, the Court concludes if NOV could have fixed its glaring standing problem, it would have done so a long time ago and certainly before August 2012. The Court further finds it notable that NOV has at no point—either in its response to Omron’s first motion to dismiss or during the instant round of briefing—even made an attempt to explain the blatant inconsistencies reflected in the examples detailed above. NOV’s silence speaks volumes. Because it is plainly unlikely NOV will be able to cure its standing problem, the Court dismisses the case with prejudice.

II. Omron’s Motions for Summary Judgment on Invalidity and Non-Infringement

Alternatively, the Court finds Omron is entitled to summary judgment because (1) the ’142 Patent is invalid based on public use, and (2) the Omron system does not infringe the ’142 Patent.

A. Legal Standard—Summary Judgment

Summary judgment shall be rendered when the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine dispute as to any material fact and that the moving party is entitled to judgment as a matter of law. FED. R. CIV. P. 56(a); *Celotex Corp. v. Catrett*, 477 U.S. 317, 323–25 (1986); *Washburn v. Harvey*, 504 F.3d 505, 508 (5th Cir. 2007). A dispute regarding a material fact is “genuine” if the evidence is such that a reasonable jury could

return a verdict in favor of the nonmoving party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). When ruling on a motion for summary judgment, the court is required to view all inferences drawn from the factual record in the light most favorable to the nonmoving party. *Matsushita Elec. Indus. Co. v. Zenith Radio*, 475 U.S. 574, 587 (1986); *Washburn*, 504 F.3d at 508. Further, a court “may not make credibility determinations or weigh the evidence” in ruling on a motion for summary judgment. *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000); *Anderson*, 477 U.S. at 254–55.

Once the moving party has made an initial showing that there is no evidence to support the nonmoving party’s case, the party opposing the motion must come forward with competent summary judgment evidence of the existence of a genuine fact issue. *Matsushita*, 475 U.S. at 586. Mere conclusory allegations are not competent summary judgment evidence, and thus are insufficient to defeat a motion for summary judgment. *Turner v. Baylor Richardson Med. Ctr.*, 476 F.3d 337, 343 (5th Cir. 2007). Unsubstantiated assertions, improbable inferences, and unsupported speculation are not competent summary judgment evidence. *Id.* The party opposing summary judgment is required to identify specific evidence in the record and to articulate the precise manner in which that evidence supports his claim. *Adams v. Travelers Indem. Co. of Conn.*, 465 F.3d 156, 164 (5th Cir. 2006). Rule 56 does not impose a duty on the court to “sift through the record in search of evidence” to support the nonmovant’s opposition to the motion for summary judgment. *Id.* “Only disputes over facts that might affect the outcome of the suit under the governing laws will properly preclude the entry of summary judgment.” *Anderson*, 477 U.S. at 248. Disputed fact issues that are “irrelevant and unnecessary” will not be considered by a court in ruling on a summary judgment motion. *Id.* If the nonmoving party fails to make a showing sufficient to establish the existence of an element

essential to its case and on which it will bear the burden of proof at trial, summary judgment must be granted. *Celotex*, 477 U.S. at 322–23.

B. Omron’s Motion for Summary Judgment on Invalidity

Omron argues the ’142 Patent is invalid based on a prior public use before the critical date of April 19, 1992—one year before Bowden filed his patent application on April 19, 1993.

1. Facts Concerning Public Use

The undisputed facts concerning public use derive exclusively from the inventor Bobbie Bowden’s testimony. Bowden began building a prototype of his invention in January 1992. Dodd Aff. [#130-18] Ex. 18 (Bowden Dep.) 67:1–19. Once he had a prototype, he approached a foreman, Gene Finney, on a drilling rig on a well owned by Union Pacific Resources in the Austin chalk drilling region. *Id.* 67:20–68:24. He asked Finney whether the prototype could be used on the rig, and Finney agreed. *Id.* Ultimately, Bowden used his automatic driller to varying degrees on three horizontal wells owned by Union Pacific Resources during February to April 1992. At no point during that time frame was anyone who was on the rig operating the drill under any confidentiality obligation. *Id.* 92:6–93:1.

Bowden used his prototype on the first well from February 19, 1992, to March 6, 1992. *Id.* 71:23–72:22. The prototype on the first well had two modes: it could use either bit weight or drilling fluid pressure as the parameter for controlling the release of the drill string. *Id.* 108:7–10. During drilling on the first well, Bowden used the drilling fluid pressure mode. *Id.* 108:21–25. The automatic driller would drill smoothly for periods of time but would stall out regularly. *Id.* 109:21–25. Bowden was only permitted to use his prototype on the vertical portion of the well, not

the “curve,” which is the portion of the well making the turn to go horizontal, or the horizontal portion of the well. *Id.* 118:15–24.

After the first well, Bowden took the prototype back to his shop and made some modifications. Specifically, Bowden added a third mode where both the bit weight and drilling fluid pressure modes could be used at the same time, which improved the operation. *Id.* 108:4–15.

Bowden then used the improved prototype on the second well from March 15, 1992, to April 3, 1992. *Id.* 77:19–78:20. This time, the prototype was used on both the vertical and horizontal portions of the well, but not the curve. *Id.* 120:9–17. Using the third mode, Bowden testified the prototype worked better on the vertical portion than on the first well as they were “a few” stall outs but “not much.” *Id.* 215:2–9. Similarly, on the horizontal portion of the well, Bowden testified there were “not that many” stall outs, and while it was not perfect, overall it worked “fairly good.” *Id.* 215:10–20. Bowden further testified regarding the second well that while he was always the individual controlling his prototype, he “would show [rig workers] how you set the weight and the pump pressure.” *Id.* 122:7–9. Sometimes the rig workers would monitor the operation of the prototype without Bowden being present. *Id.* 122:10–25.

Third and finally, Bowden used the prototype on the third well from April 13, 1992, to April 27, 1992. *Id.* 78:21–79:12. The success on the second well led to the well operators permitting Bowden to use his prototype for the first time on the curve. *Id.* at 124:2–12. Specifically, the prototype was used for most of the vertical portion, and then on April 20, 1992, it was used to “slide” the curve. *Id.* at 124:9–125:12. Bowden immediately informed Finney of the prototype’s success on the curve. *Id.* at 125:12–21. Finney then held a meeting where for the first time the parties discussed payment. *Id.* 125:21–126:4. They agreed that rent for Bowden’s prototype would begin

April 21, 1992, and Finney informed Bowden he had decided to pay him for his prototype's work on all three wells. *Id.* 126:6–9.

Starting in April 1992, Bowden began producing additional units of his prototype to market for use on additional rigs. *Id.* 194:9–196:21. He referred to the units using the commercial name “Wildcat” and rented them out of his business Wildcat Specialty. *Id.* On April 19, 1993, Bowden filed his patent application with the USPTO, which issued the '142 Patent on December 12, 1995. The patent, titled “Automatic Drilling System,” states in the Abstract that the invention is “[a]n automatic drilling system” which “regulates the drill string of a drilling rig in response to any one of, or all of drilling fluid pressure, bit weight, drill string torque, and drill string RPM to achieve the optimal rate of bit penetration.”¹⁰ Dodd Aff. [#130-1] Ex. 1 (the '142 Patent) at 1. The only claims currently being asserted by NOV in this case are claims 11 and 14, which are method claims, and the Court now recites them in their entirety:

11. A method for automatically regulating the release of the drill string of a drilling rig drill, comprising the steps of:
measuring drilling fluid pressure;
producing a signal in response to changes in drilling fluid pressure, said signal representing the changes in drilling fluid pressure;
relaying said signal to a drill string controller; and
controlling said drill string controller to increase the rate of release of said drill string when said signal represents a decrease in drilling fluid pressure and to decrease the rate of release of said drill string when said signal represents an increase in drilling fluid pressure.

...

14. A method for automatically regulating the release of the drill string of a drilling rig drill, comprising the steps of:

¹⁰ While the '142 Patent covers using the drilling parameters of torque and rate of penetration, the asserted claims recite only bit weight and drilling fluid pressure. The prototype used on the three wells during February to April 1992 also only used bit weight and drilling fluid pressure.

measuring drilling fluid pressure and bit weight;
 producing a first signal in response to changes in drilling fluid pressure, said first signal representing the changes in drilling fluid pressure;
 producing a second signal in response to changes in bit weight, said second signal representing the changes in bit weight;
 selecting any one of said first signal, said second signal, and both said first and said second signals to control the release of said drill string; and
 relaying said selected signal or signals to a drill string controller which regulates the release said drill string in response to said selected signal or signals.

'142 Patent col. 27 ll. 44–57, col. 28 ll. 23–39.¹¹

2. Legal Standard—Public Use

Under 35 U.S.C. § 102, “[a] person shall be entitled to a patent unless . . . the invention was . . . in public use . . . more than one year prior to the date of the application for patent in the United States.” 35 U.S.C. § 102(b). For a challenger to prove a patent claim invalid under § 102(b), the record must show by clear and convincing evidence the claimed invention was in public use before the patent’s critical date. *See Adenta GmbH v. OrthoArm, Inc.*, 501 F.3d 1364, 1371 (Fed. Cir. 2007). The critical date is “one year prior to the date of the application for patent in the United States.” 35 U.S.C. § 102(b). “[A] public use includes any public use of the claimed invention by a person other than the inventor who is under no limitation, restriction or obligation of secrecy to the inventor.” *Adenta*, 501 F.3d at 1371 (quotation omitted). In order for a use to be public within the meaning of § 102(b), there must be a public use with all of the claim limitations. *See Lough v. Brunswick Corp.*, 86 F.3d 1113, 1122 n.5 (Fed. Cir. 1996) (“Each claim of the patent must be considered individually when evaluating a public use bar.”).

¹¹ The '142 Patent has returned to the USPTO multiple times for reexamination since first being issued. These reexaminations have not affected claims 11 and 14 in a way that is relevant to the Court’s analysis of public use. Therefore, the Court’s recitation of the claims in this order reflect the claims as they were first issued December 12, 1995. The Court does note, however, the changes to claim 11 during reexamination could hypothetically impact the Court’s infringement analysis and the applicable damages period.

What would otherwise appear to be public use is negated if the inventor was testing claimed features of his invention. *EZ Dock, Inc. v. Schafer Sys., Inc.*, 276 F.3d 1347, 1353 (Fed. Cir. 2002). “When an evaluation period is reasonably needed to determine if the invention will serve its intended purpose, the § 102(b) bar does not start to accrue while such determination is being made.” *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, 1324 (Fed. Cir. 1996). An invention can exist for the purposes of the statutory bar, however, even though it may later be refined or improved. *Baxter Int’l, Inc. v. COBE Labs., Inc.*, 88 F.3d 1054, 1060 (Fed. Cir. 1996); *Baker Oil Tools, Inc. v. Geo Vann, Inc.*, 828 F.2d 1558, 1563 (Fed. Cir. 1987). Once an inventor realizes the invention as later claimed indeed works for its intended purpose, further “experimentation” may constitute a barring public use. *RCA Corp. v. Data Gen. Corp.*, 887 F.2d 1056, 1061 (Fed. Cir. 1989) (“[E]xperimental use, which means perfecting or completing an invention to the point of determining that it will work for its intended purpose, ends with an actual reduction to practice.”).

3. Application

a. The use of the prototype on the three wells was a public use

Bowden’s use of the prototype prior to April 19, 1992, on wells owned by Union Pacific Resources and on a drilling rig controlled by Finney, was a public use. No one involved with the drilling of these three wells was under any confidentiality obligation to Bowden. Bowden testified that while he would control the device, he would show workers how to adjust the settings, and the prototype was used and operated at times when he was not present.

NOV contends it was not a public use because Bowden kept the prototype in a box at the rig site under lock and key, and only he had access to it. But the mere fact an invention is locked up, or even hidden from view, does not mean a use is not public. *See Egbert v. Lippman*, 104 U.S. 333,

336–37 (1881) (finding corset strings in public use even though hidden from sight under the woman’s clothing); *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1299 (Fed. Cir. 2002) (holding use of a drill bit underground was public even though “one could not view the drill bit or see it in operation”). Moreover, Bowden admitted the control panel for his prototype was visible from outside the lockbox, meaning only the internal components of the prototype were actually hidden from public view. Bowden Dep. 147:18–155:17 (describing the various components of the prototype open to public view).

NOV also suggests the fact Bowden kept the prototype in a lockbox raises a fact issue about whether there was a presumption of confidentiality. *See* Def.’s Resp. [#140-2] at 28 n.85 (citing *Am. Seating Co. v. USSC Grp., Inc.*, 514 F.3d 1262, 1267 (Fed. Cir. 2008)). In *American Seating*, the inventors of a wheelchair tie-down system would place their prototypes, as they improved them, “in an out-of-service bus for the purpose of soliciting feedback from friends and colleagues who to varying degrees assisted in the invention’s development.” *Am. Seating*, 514 F.3d at 1267. The court found “the fact that the inventors revealed the prototype to a select group of individuals without a written confidentiality agreement was not dispositive, and when access to an invention is clearly limited and controlled by the inventor, depending upon the relationships of the observers and the inventor, an understanding of confidentiality can be implied.” *Id.* at 1268.

In contrast to the inventors’ use of their prototype in an out-of-service bus, Bowden used his prototype on an active, commercial drilling rig, and while Bowden was in part testing the abilities of the prototype, he was also ultimately paid for its successful drilling. Furthermore, NOV has not shown access to Bowden’s prototype was clearly limited and controlled by him or that the relationships of Bowden with the rig operators were of a nature that an understanding of

confidentiality should be implied. To the contrary, the rig operators did far more than just observe; indeed, Bowden testified in reference to the rig operators: “They’re running the rig. Okay? I’m just watching.” Bowden Dep. 115:13–16. The rig operators cannot be characterized as friends or colleagues who observed the prototype in action for the purpose of providing Bowden feedback and assisting in the prototype’s development.

b. The experimental use exception does not apply

The experimental use exception does not apply when the invention is reduced to practice before the critical date, and “an invention is reduced to practice when it works for its intended purpose.” *Atlanta Attachment Co. v. Leggett & Platt, Inc.*, 516 F.3d 1361, 1366 (Fed. Cir. 2008). There is no dispute Bowden’s automatic driller prototype drilled portions of the first, second, and third wells. The dispute centers on when the drilling was done for the prototype’s “intended purpose.”

NOV contends the prototype was not used for its intended purpose until April 20, 1992, when it was used to drill the curve on the third well. *See* Def.’s Resp. [#140-2] at 29–30. As NOV frames the inquiry, the whole point of Bowden’s invention was to automatically drill a horizontal well, and “sliding the curve” from vertical to horizontal is an essential aspect of drilling a horizontal well from beginning to end. *Id.* NOV cites Federal Circuit cases finding the experimental use exception applies to inventors testing their inventions under different conditions not expressly mentioned in the patent claims. *See id.* at 30–31 (citing *Manville Sales Corp. v. Paramount Sys. Inc.*, 917 F.2d 544, 550 (Fed. Cir. 1990); *EZ Dock*, 276 F.3d at 1353; *Honeywell Int’l Inc. v. Universal Avionics Sys. Corp.*, 488 F.3d 982, 998 (Fed. Cir. 2007)).

For example, in *Manville*, the invention was “iris guide arms” for a “self-centering luminaire assembly.” *Manville*, 917 F.2d at 547. In considering testing of the invention in winter conditions, the court found “[t]he iris arm device was specifically designed to withstand year around weather. Prior to its testing in the winter environment, there really was no basis for confidence by the inventor that the invention would perform as intended, and hence no proven intention to disclose.” *Id.* at 550. The court reasoned: “When durability in an outdoor environment is inherent to the purpose of an invention, then further testing to determine the invention’s ability to serve that purpose will not subject the invention to a section 102(b) bar.” *Id.* (citation omitted). Similarly, in *EZ Dock*, the court found a fact issue existed regarding the experimental use exception where an inventor tested his polyethylene floating dock on different sections of a lake because “[t]hese floating docks, by their nature, must endure all kinds of water conditions, including choppy water created by weather and boating.” *EZ Dock*, 276 F.3d at 1353.

The facts in this case are different, however, because unlike the apparatus claims at issue in *Manville* and *EZ Dock*, the claims at issue in this case are method claims. The testing of an apparatus claim, depending on the device, will naturally involve testing its durability in conditions not recited in the claims, and an apparatus cannot be said to have been reduced to practice until its durability has been explored. A method claim, on the other hand, is more self-contained, and it is reduced to practice as soon as the method is performed in its intended environment. See *New Railhead*, 298 F.3d at 1299 (“[T]here is no suggestion whatsoever that Freeman’s January 1996 use of the patented method did not meet each and every claim limitation in the #743 patent. New Railhead understood after the first 200-foot bore that the patented *method* had been reduced to practice, as it worked for its intended purpose.”) (emphasis in original); *Petrolite Corp. v. Baker*

Hughes Inc., 96 F.3d 1423, 1427 (Fed. Cir. 1996) (“Here, however, it is not the case that Quaker had not used its invention in its intended environment; to the contrary, Quaker had tested the method in its intended environment and it had worked.”).

Here, there is no dispute Bowden’s prototype successfully drilled both the vertical and horizontal portions of the second well. While the drilling may not have been perfect, it worked “fairly good” and good enough to get paid for it after the fact. Critically, these drilling operations on the second well entailed every step of the methods described in claims 11 and 14. While NOV insists the prototype’s intended purpose was horizontal drilling, which requires sliding the curve, there is zero mention of horizontal drilling in the asserted claims, much less what sliding the curve is and its necessity to horizontal drilling.

Instead of defining the prototype’s intended purpose by the patent claims themselves, NOV effectively asks the Court to allow Bowden’s testimony regarding *his belief* as to when the prototype had demonstrated its intended purpose to be dispositive. But the Federal Circuit has specifically rejected the notion the inventor’s testimony regarding the intent of the experimentation automatically creates a genuine issue of material fact. *See Petrolite*, 96 F.3d at 1427 (“The subjective belief of inventors . . . must be weighed against objective evidence which indicates otherwise.”). Here, the objective evidence is the claim language, and there is no indication that in order to practice the invention, the well being drilled must be horizontal. Instead, it merely describes a method for automatically drilling using the parameters of drilling fluid pressure and bit weight.¹²

¹² The Court acknowledges the specification contemplates horizontal drilling. For instance, the “Background of the Invention” states the invention “relates to automatic drilling systems and, more particularly, but not by way of limitation, to an automatic drilling system that controls the release of a drill string in vertical, directional, and horizontal drilling operations” ’142 Patent col. 1 ll. 5–9. In addition, the “Description of the Related Art” explains how the prior art involved automatic drillers, which used only bit weight to control the release of the drill string. *Id.* col. 1 ll. 12–55. While a bit weight-based automatic driller functions adequately for vertical wells, it ceases to operate properly

The Federal Circuit’s opinion in *Harrington Manufacturing Co., Inc. v. Powell Manufacturing Co.*, 815 F.2d 1478 (Fed. Cir. 1986), provides precise guidance on the issue. In *Harrington*, the invention at issue was a mechanized tobacco harvester with a swinging head to accommodate tobacco stalks that are out of line or doglegged. *Id.* at 1480. After the inventor demonstrated the machine’s operation to a journalist who subsequently published an article, the district court applied the public use bar to invalidate the inventor’s patent. *Id.* On appeal, the appellant urged the experimental use exception because, while the harvester performed satisfactorily on the upper leaves of the stalks during the demonstration, it was impossible to determine whether the harvester would perform satisfactorily on the lower leaves. *Id.* Only when the machine was tested three months later in the harvesting season when the tobacco stalks had lower leaves again could the machine have worked for its intended purpose, argued the appellant. *Id.* The Federal

for horizontal wells. *Id.* The ’142 Patent’s purported invention was to allow for automatic drilling of horizontal wells via the use of other parameters, namely drilling fluid pressure. *Id.* Yet while the patent clearly contemplates horizontal drilling, it is not limited to horizontal drilling. In fact, Figure 1—the preferred embodiment—illustrates a vertical well. *Id.* col. 3 ll. 6–8, fig.1. Indeed, it is the only depiction of any well at all; in other words, there are no horizontal wells shown in the patent. *Id.* figs.1–14. Nor does the “Detailed Description of the Preferred Embodiments” at any point describe how the invention specifically works while drilling the horizontal portion of the well versus the vertical portion. Most importantly, the claims never mention horizontal or directional drilling, or vertical drilling for that matter.

Therefore, to the extent NOV would suggest the “intended purpose” of the patent must be horizontal drilling because using drilling fluid pressure to drill horizontally is the inventive aspect of the patent, rather than overcoming its invalidity problem regarding Bowden’s public use, NOV would be merely causing another blowout. If drilling automatically using drilling fluid pressure—regardless of whether it is a vertical or horizontal well—is not inventive, then NOV has a serious problem because the claims merely describe drilling automatically using parameters beyond bit weight—like drilling fluid pressure—and do not limit such drilling to horizontal wells.

On yet another basis the Court disagrees with NOV’s insistence the patent’s “intended purpose” was horizontal drilling. It is undisputed Bowden successfully drilled the horizontal portion of the second well. To do so, the prototype used drilling fluid pressure as well as bit weight as the controlling parameters. Therefore, even if the ’142 Patent’s inventive contribution was automatically drilling a well where bit weight alone (the prior art) would not suffice, the successful drilling of the horizontal portion of the second well using drilling fluid pressure was a direct illustration of the invention’s unique contribution in action. NOV would undoubtedly respond by moving the goal posts further and contending Bowden needed to do more than drill the horizontal portion—he needed to drill the “curve.” In so arguing, NOV is not only trying to cabin the ’142 Patent’s “intended purpose” to horizontal drilling but even more specifically to drilling the curve. Yet while the patent at least mentions horizontal and directional drilling, there is a total absence of any description of the “curve” or how drilling the curve is different from, and essential to, being able to drill the horizontal portion of a well.

Circuit rejected this argument and affirmed the invalidity finding because the prototype used at the demonstration “clearly fell within the scope of claim 8 of the Pickett patent.” *Id.* at 1481. The court reasoned as follows:

[W]e do not conclude the appellant’s asserted uncertainty that the harvester would satisfactorily harvest lower leaves of the tobacco plant raises a genuine issue of fact in this instance. Claim 8 of the Pickett patent is a broad claim and does not require that lower leaves of tobacco be harvested; rather, claim 8 reads on a device that removes leaves from part of the tobacco stalk. When Pickett demonstrated the harvester to Osborne in September 1966, claim 8 unequivocally had been reduced to practice.

Id.

This reasoning perfectly fits the circumstances of the instant matter. Bowden’s asserted uncertainty his prototype would work on the curve does not create a genuine issue of fact. Claims 11 and 14 of the ’142 Patent are broad claims and do not require drilling horizontally or sliding the curve; rather, they describe a method for automatically drilling using drilling fluid pressure and bit weight to control the release of the drill string. When Bowden automatically drilled the vertical and horizontal portions of the second well using these parameters, claims 11 and 14 unequivocally had been reduced to practice.

Finally, NOV points out the jury in the Pason Case considered whether Bowden’s prior use invalidated the ’142 Patent and concluded it did not. *See* Def.’s Resp. [##140-27, -28] Exs. 24 (Trial Transcript), 25 (Verdict Form). Therefore, NOV contends a reasonable jury could return a verdict for NOV, and summary judgment is improper. *Id.* [#140-2] (citing *Liberty Lobby*, 477 U.S. at 248). This Court is unfamiliar with the specific details of what transpired in the Pason Case regarding public use, and regardless, it is not bound by the decisions of the District of Colorado. Based on this Court’s understanding of the relevant law and the application of that understanding to the record

before it, the Court finds there is no genuine issue of material fact Bowden's public use of his prototype prior to April 20, 1992, was an invalidating use.

Therefore, the Court concludes, in the alternative, Omron is entitled to summary judgment because the '142 Patent is invalid based on a prior public use.

C. Omron's Motion for Summary Judgment on Non-Infringement

Omron argues its system does not infringe claims 11 and 14 of the '142 Patent. Specifically, Omron contends NOV's mechanical system, which clearly partitions the parameters being measured and the corresponding signals being relayed to the drill string controller, does not cover a system where signals are combined as in Omron's digital operation.

1. Facts Concerning Infringement

a. The System Recited by the '142 Patent

The '142 Patent describes an automatic drilling system which controls the release of the drill string based on changes in the following four parameters: drilling fluid pressure, bit weight, drill string torque, and drill string RPM. '142 Patent col. 1 ll. 4–11. The preferred embodiment—Figure 1—depicts the basic components of a drilling rig. *Id.* col. 3 ll. 6–8, Fig. 1. The drill string extends into the borehole, utilizing drawworks. *Id.* col. 3 ll. 55–56. A brake controls the release of cable to adjust the vertical position of the drill string. *Id.* ll. 61–63. A drill bit is located at the end of the drill string, and a rotary table drives the drill string to rotate the drill bit to achieve the drilling of the borehole. *Id.* ll. 65–66. Drilling fluid (such as mud) is pumped into the drill string and drives the mud motor, provides pressure within the drill bit to prevent blowouts, and carries drilled formation materials from the borehole. *Id.* col. 4 ll. 10–15.

The object of the invention is to maintain “sufficient and constant pressure” on the drill bit to achieve optimal rate of penetration. *Id.* ll. 16–32. For example, the drill bit may rise “off bottom,” i.e., off the bottom of the borehole, causing the progression of drilling to cease (where the drill is spinning, but not at the bottom of the hole). *Id.* In that situation, the release of the drill string is adjusted to maintain the drill bit “on bottom.” *Id.*

The ’142 Patent acknowledges it was common in the prior art to measure the bit weight and to automatically adjust the release of the drill string to maintain an optimal bit weight. *Id.* col. 1 ll. 14–15. The ’142 Patent discloses the purportedly novel concept of automatically adjusting the release of the drill string based on other parameters in addition to bit weight, including drilling fluid pressure, drill string torque, and drill string RPM. *Id.* cols. 1–2 ll. 14–3.

The automatic driller of the ’142 Patent achieves the automatic adjustment of the drill string through the use of four regulators in series, one regulator for each of the four drilling parameters. *Id.* cols. 7–8 ll. 17–6. The regulators, which are pneumatic valves, are depicted in Figure 2 of the patent. *Id.* col. 3 ll. 9–11, Fig. 2. The use of the regulators can be summarized as follows: The valves control the amount of air fed to the air motor, and the air motor controls the brake and therefore the rate of release of the drill string. *Id.* cols. 7–8 ll. 35–61, col. 10 ll. 4–32. As a result, the amount the valve is held open dictates how much braking force is applied. *Id.* If the valve is completely shut, no air is fed to the motor, which prevents the motor from lifting the brake, and the release of the drill string is completely stopped. *Id.* On the other hand, if the valve is fully open, the air motor lifts the brake, and the release is faster. *Id.*

The magnitude of the valve opening is determined by a sensor for the applicable parameter, e.g., drilling fluid pressure. *Id.* Before drilling begins, the operator manually adjusts a screw on each

regulator to open the valve a desired amount. *Id.* cols. 8–10 ll. 52–32. Once drilling commences, a decrease in drilling fluid pressure below the desired level will cause the valve to open to a greater degree, which will increase the amount of air delivered to the air motor and a release of the brake. *Id.* col. 10 ll. 4–32. As the drilling fluid pressure increases, the reverse occurs. *Id.* col. 10 ll. 33–61.

b. The Court’s *Markman* Order Construing the ’142 Patent

In the *Markman* order, the Court construed the phrases “said signal representing the changes in drilling fluid pressure” (claim 11) and “said first signal representing the changes in drilling fluid pressure” (claim 14) to mean “a signal that indicates the changes in only drilling fluid pressure.” *See* Order of Aug. 30, 2013 [#54] (*Markman* Order) at 6–14. Similarly the Court construed the phrase “said second signal representing the changes in bit weight” (claim 14) to mean “a signal that indicates the changes in only bit weight.” *Id.* In so doing, the Court held the claims do not cover a system wherein separate signals are combined. *Id.*

The Court reasoned “the ‘signal’ generated by each sensor, and in turn by each regulator, and carried by the respective relay, is necessarily communicating information about only one parameter.” *Id.* at 8. The Court stated “the specification makes clear the ’142 Patent does not disclose an invention in which each signal conveys multiple meanings,” and “the literal scope of the claims does not describe any combined signal.” *Id.* at 9. The Court further concluded the ’142 Patent does not describe any method to produce combined signals. *Id.* at 11. The system may produce and select two signals that arrive at the drill string controller at the same time (as recited in claim 14), but they remain separate: “Even when both signals are present and selected, there remain two signals, not one.” *Id.* at 13.

c. The Accused Omron System

The accused Omron system controls the drawworks of a drilling rig in response to four drilling parameters: weight on bit (i.e., bit weight), differential pressure (i.e., drilling fluid pressure), torque, and rate of penetration (ROP). Omron owns two patents for its system: U.S. Patent Nos. 7,775,297 (the '297 Patent) and 8,136,609. These patents provide the basis for NOV's infringement contentions. *See* Dodd Aff. [#130-15] Ex. 15 (Wooley Report) at 20. Figures 2 and 4 of the '297 Patent provide a simplified overview of how Omron's system works. *See id.* [#130-16] Ex. 16 (the '297 Patent) col. 4 ll. 8–10, 14–16, Figs. 1–2. Figure 4 shows there are three controllers: a weight on bit controller, a torque controller, and a differential pressure controller. *Id.* All three operate the same way. *Id.* cols. 6–7 ll. 40–3.

For instance, differential pressure is measured, and the measure value is fed into the software of Omron's system, represented by a "Pv," an abbreviation for present value, in Figure 4. *Id.* The present value is compared to a "set point," which is abbreviated as "Sp" in Figure 4. *Id.* The difference between the present value and the set point value is calculated as an "error" value. *Id.* The software then performs a number of calculations on the error value to generate a "normalized" number between zero and one. *Id.* The normalized value for differential pressure is represented in triangle "K3" of Figure 4. *Id.* The weight on bit controller and the torque controller operate in the same way as the differential pressure controller. *Id.* The normalized value for weight on bit is referred to as "K1" in Figure 4, and the normalized value for torque is referred to as "K2" in Figure 4. *Id.* fig.4. Then, "K4" is a value that sets the direction of the drill string (either up or down) with either a plus or minus. *Id.* col. 7 ll. 4–26. K4 also converts the units of the signal from feet/hour to feet/minute. *Id.* fig.4.

The three normalized values (K1, K2, and K3) and K4 are multiplied by the “Rate of Penetration Set Point,” referred to as “RopSp” in Figure 4. *Id.* col. 7 ll. 27–39. The Rate of Penetration Set Point is a value the operator inputs into the computer as the desired drilling speed, e.g., a desired Rate of Penetration of 1000 feet/hour. *Id.* col. 5 ll. 28–30. The result of this multiplication is the “Block Velocity Set Point,” a signal which is then sent on for further processing by Omron’s system to generate a new set point in units of hertz. *See* Dodd Aff. [#130-19] Ex. 19 (Hopwood Dep.) 94:16–98:15. The new set point is then sent to a variable frequency drive (VFD) on the rig floor. *Id.* The VFD converts the signal to alternating current, which is sent to a motor that controls the drawworks. *Id.* [#130-17] Ex. 17 (Wooley Dep.) 95:24–96:20. According to NOV’s technical expert, the motor is the “drill string controller” recited in claims 11 and 14 of the ’142 Patent. *See* Wooley Report at 26–27.

2. Legal Standard—Infringement

Determining whether a patent has been infringed is a two-step analysis: “First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process.” *PC Connector Solutions LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1362–63 (Fed. Cir. 2005). “If, however, even one claim limitation is missing or not met, there is no literal infringement.” *MicroStrategy Inc. v. Bus. Objects, S.A.*, 429 F.3d 1344, 1352 (Fed. Cir. 2005).

An accused product also may fall within the scope of the claims if each element of the claims is present under the doctrine of equivalents. *Amhil Enters., Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996). “[T]he doctrine of equivalents must be applied to each missing claim element, not the invention as a whole.” *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29

(1997). To survive summary judgment, the patentee is “required to provide particularized testimony and linking argument on a limitation-by-limitation basis that create[s] a genuine issue of material fact as to equivalents.” *Aquatex Indus., Inc. v. Techniche Solutions*, 479 F.3d 1320, 1328 (Fed. Cir. 2007). “Generalized testimony as to the overall similarity between the claims and the accused infringer’s product or process will not suffice.” *Id.*

3. Application

a. There is no literal infringement

Both claims 11 and 14 of the ’142 Patent state unambiguously that the signal, which represents changes in drilling fluid pressure, must be relayed to the drill string controller. Thus, the same signal that is produced at the outset is relayed to the drill string controller without being combined with any other signal. *Markman* Order at 6–14. As the Court made clear, the ’142 Patent claims do not cover a system where signals are combined. *Id.*

In contrast, the signal “representing changes in drilling fluid pressure” in the Omron system is never sent to the drill string controller nor is the signal “representing changes in bit weight.” Instead, these signals are used as multipliers to process a new signal called the “Block Velocity Setpoint” in feet/minute. This signal is further processed to generate a new set point in units of hertz. The VFD then converts the signal to alternating current, which is then ultimately sent to the motor, i.e. the “drill string controller.” The Court’s *Markman* Order clearly held the ’142 Patent does not cover the type of system described in Omron’s ’297 Patent. Therefore, there is no literal infringement.

NOV cannot avoid this straightforward conclusion but tries to argue around it in a number of ways. Primarily, NOV contends the Omron system can be used in a manner where the drilling

operator disables the operation of all the drilling parameters except the one for drilling fluid pressure. *See* Def.'s Resp. [#140-2] at 13–15. In effect, the signals generated for bit weight and torque equal “1,” and the only signal generated based on a variable is changes in drilling fluid pressure. *Id.* Yet even when Omron's system operates in this fashion, there is still no literal infringement. NOV's expert stated the normalized output of the differential pressure controller is the “signal representing changes in drilling fluid pressure” described in claim 11. Wooley Report at 26. Accordingly, in order to infringe, the normalized output would have to be the “said signal” that is “relayed” to the drill string controller—but undisputedly, the normalized output is not relayed to the motor in the Omron system. Instead, this “said signal” is multiplied with the signals for bit weight and torque (even if they are 1.0), and all three of these signals are multiplied with the RopSp to generate a new signal in feet/hour, next converted into feet/minute. This signal is converted into units of hertz, and the VFD converts the hertz signal into alternating current. And it is this signal that is ultimately “relayed” to the “drill string controller.” Simply put, the normalized output for drilling fluid pressure—the signal NOV's expert claims to be the signal relayed to the drill string controller—is not relayed to the drill string controller.

NOV contends multiplying the drilling fluid pressure by “1” and converting the units a few times cannot change the fact that drilling fluid pressure change is the determining factor controlling release of the drill string. Yet the normalized output for drilling fluid pressure is multiplied by more than just the normalized outputs for bit weight and torque, namely the RopSp, which can be adjusted during drilling.

NOV also insists there is evidence Omron's system maintains separate signals for each parameter and is capable of selecting one or two of those signals. According to NOV, since Omron

graphs the parameters individually, combining those signals is “impossible.” *See* Def.’s Resp. [#140-2] at 18–19. The Court fails to see NOV’s logic. Obviously, the parameters are maintained and measured separately at some stage in the process, but the germane point is they are subsequently multiplied and combined. The graph NOV emphasizes showing how the Omron system monitors the drilling parameters merely reflects, as NOV’s expert agrees, the “measure values” or “present values” for each of the drilling parameters. *See* Wooley Report at 28. And as described above, these present values undergo a process to equal normalized outputs, and the normalized outputs are multiplied, and so on. NOV’s expert acknowledges this process. *Id.* at 22, 25.

b. There is no infringement under the doctrine of equivalents

NOV, relying on their expert’s report, suggests the “selecting” step and the “signals” of the ’142 Patent are present in Omron’s system under the doctrine of equivalents. *See* Def.’s Resp. [#140-2] at 22, 27 (citing Wooley Report at 33–34, 32). In total, NOV’s expert makes the following equivalents contentions: (1) Omron’s VFD is equivalent to the ’142 Patent’s relaying step; and (2) the “signals” for bit weight and drilling fluid pressure from the ’142 Patent are present in their equivalent in Omron’s system.

NOV must show each claim limitation in claims 11 and 14 is present in its equivalent in Omron’s system. Leaving aside the contention regarding the VFD and the relaying step, the Court focuses on the second equivalents statement, which in its entirety reads:

The signals above perform substantially the same function as the signals in claims 11 and 14 of the ’142 Patent (first signal representing or indicating control parameters and second signal controlling drill string based on the control paramaters [sic]), in substantially the same way (taking a difference in measured and set point value to create a signal representing this difference and creating a signal to control the drill string) to yield substantially the same result (using a signal based on control measurements to control the release of a drill string).

Wooley Report at 33–34.

First of all, the Court finds this single sentence to be the sort of generalized testimony insufficient to create a genuine issue of material fact on equivalents. The Court is unclear on which claim limitation is at issue based on this conclusory comparison. Second, it does not effectively explain how the claim limitation of relaying “said” signal is present in Omron’s system. More specifically, NOV’s expert does not explain how a digital system utilizing software to multiply and convert signals is equivalent to a mechanical system simply relaying “said” signal to the drill string controller.¹³

The parties’ dispute over the doctrine of equivalents implicates the difficulty of after-arising technology, as the Federal Circuit has previously pointed out when considering the Pason Case on appeal. Initially in the Pason Case, the district court denied Varco, L.P.’s preliminary injunction motion for failure to show a likelihood of success on infringement. *See Varco, L.P. v. Pason Sys. USA Corp.*, 436 F.3d 1368, 1369 (Fed. Cir. 2006). On appeal, the Federal Circuit found the district court erred when it construed claim 14 of the ’142 Patent as being limited to selecting signals by a two step manual process and as being limited to relaying by pneumatically operated valves. *Id.* The Federal Circuit vacated the denial of the preliminary injunction motion and remanded the case,

¹³ NOV suggests Omron waived its argument focusing on the “said” limitation. *See* Def.’s Resp. [#140-2] at 24. The Court disagrees. This fundamental difference between the invention described in the ’142 Patent and the accused system has been a constant presence in this case. The claim term “said” is straightforward and requires no construction. *See Predicate Logic, Inc. v. Distributive Software, Inc.*, 544 F.3d 1298, 1305 (Fed. Cir. 2008) (“[C]laim terms using ‘said’ are anaphoric phrases, referring to the initial antecedent phrase.”). Omron’s argument regarding “said” is no surprise but rather a simple recitation of a self-evident word in a claim.

NOV also claims Omron’s arguments regarding “said” signal should be disregarded because Omron allegedly failed to provide sufficient computer source code for its system. *See* Def.’s Resp. [#140-2] at 24–25. NOV’s expert testified, however, he reviewed the source code in preparing his infringement report and had sufficient source code to analyze infringement. *See* Wooley Dep. 68:18–24 (“No, I did not have insufficient amount [of source code] to determine infringement.”); *id.* 69:3–9 (“No, I told you I had enough [source code] for what’s in my report”); *id.* 69:15–21 (“Well, as I mentioned a moment ago, I’ve got everything I need for what’s in my report.”).

instructing the district court it may consider construction of claim 14, the validity of claim 14, and infringement of claim 14 by Pason's system. *Id.* at 1376. The Court further opined: "Because this case seems to present an instance of after-arising technology (e.g., improvements on prior innovations), the district court may find it appropriate to consider infringement under the doctrine of equivalents." *Id.* (citing seven Federal Circuit opinions indicating technological advances may not permit an accused device to evade infringement in a particular case and the "quintessential example" of an enforceable equivalent is after arising-technology).

The Court agrees and has now considered infringement under the doctrine of equivalents with after-arising technology in mind, concluding NOV has failed to create a fact issue through its expert's report. Moreover, the Court observes that Omron, during prosecution of its two patents, disclosed the '142 Patent to the patent examiner, and the '142 Patent is listed on the cover of both of Omron's patents as one of the "References Cited." *See, e.g.*, the '297 Patent. As such, the Court presumes Omron's patents are non-obvious in view of the '142 Patent until proven otherwise. *See Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563, 1570 (Fed. Cir. 1996). And "[t]he nonobviousness of the accused device, evidenced by the grant of a United States patent, is relevant to the issue of whether the change therein is substantial" for the purposes of the doctrine of equivalents. *Id.*; *see also Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 493 F.3d 1368, 1379–80 (Fed. Cir. 2007) (reasoning that "when a device that incorporates the purported equivalent is in fact the subject of a separate patent, a finding of equivalency, while perhaps not necessarily legally foreclosed, is at least considerably more difficult to make out" and "there is a strong argument that an equivalent cannot be both non-obvious and insubstantial").

Therefore, the Court alternatively finds Omron is entitled to summary judgment because there is no genuine issue of material fact concerning whether its system infringes the methods recited in claims 11 and 14 of the '142 Patent.

Conclusion

NOV has failed to meet its burden and establish it owned the '142 Patent as of August 23, 2012, when it filed this lawsuit against Omron. Therefore, the Court dismisses the case for lack of jurisdiction and does so with prejudice based on the Court's conclusion it is plainly unlikely NOV will be able to cure its standing problem. Alternatively, the Court finds Omron entitled to summary judgment on the grounds of invalidity and non-infringement. The Court finally notes its findings in the alternative are limited to these two issues.

Accordingly,

IT IS ORDERED that Defendant Omron Oilfield & Marine, Inc.'s Motion to Exclude the Testimony of Kevin Brimage on Infringement Issues Pursuant to FRE 702 [#124] is DISMISSED AS MOOT;

IT IS FURTHER ORDERED that Plaintiff National Oilwell Varco, L.P.'s Motion for Summary Judgment on Omron's Affirmative Defenses and Counterclaims of Unclean Hands and Inequitable Conduct [#127] is DISMISSED AS MOOT;

IT IS FURTHER ORDERED that Defendant Omron Oilfield & Marine, Inc.'s Motion to Dismiss, for Default Judgment, and for Summary Judgment [#134] is GRANTED IN PART and DISMISSED AS MOOT IN PART, as described in this order;

IT IS FURTHER ORDERED that Plaintiff National Oilwell Varco, L.P.'s claims against Defendant Omron Oilfield & Marine, Inc. are DISMISSED WITH PREJUDICE for lack of jurisdiction;

IT IS FINALLY ORDERED that Plaintiff National Oilwell Varco, L.P.'s Motion to Bifurcate Omron's Equitable Affirmative Defenses and Counterclaims [#164] is DISMISSED AS MOOT.

SIGNED this the 16th day of February 2015.



SAM SPARKS
UNITED STATES DISTRICT JUDGE