

# Patent Law Year in Review: Oil and Gas (2013)

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In 2013 the Federal Court experienced a surge in patent infringement actions. Whereas 48 patent infringement actions were filed in 2012, that number rose to 101 in 2013. Part of that increase came about because of growth in the oil and gas patent infringement sector. Put simply, oil and gas companies were more aggressive at enforcing their patent rights in 2013.

This blog is a review of oil and gas patent litigation in the year 2013. Specifically, we review each of the decided Federal Court cases released during the past calendar year, and provide an overview of the newly filed Federal Court cases in the oil and gas industry.

Before diving into the review, a quick note is warranted on the selection of Federal Court cases to the exclusion of provincial cases. This methodology was selected for both practical and pragmatic reasons.

On the practical side, reviewing Federal Court and Federal Court of Appeal filings and decisions is straightforward. Each Court maintains a searchable website which allows for quick identification of patent cases in the oil and gas sector. There is no good way to uncover all provincially filed cases because the provinces do not maintain similar searchable database of filed cases.

From a pragmatic standpoint, the strong majority of cases (if not all) will be filed in the Federal Court for the following three reasons:

- Actions, if granted in the Federal Court, have nationwide scope and are not limited to the jurisdiction of whatever province decided the case. Accordingly, an injunction granted by the Federal Court can prevent activity from taking place anywhere in Canada, whereas an injunction granted by a provincial Judge will only have provincial scope.
- The Federal Court has experienced judges who deal regularly with patent cases. Their familiarity with the law, and counsel's familiarity with the Federal Court, make it the go-to option for lawyers.
- The Federal Court is typically able to process patent cases much faster than their provincial counterparts. Litigants in the Federal Court can reasonably expect to have a trial date set for about two years from the date the case was filed. In contrast, securing motion dates in the province of Ontario, for instance, can take in excess of six months. Plaintiffs typically want a quick resolution, and the Federal Court is the favored jurisdiction to achieve it.

Each of the filings and decisions described below are Federal Court cases.

#### New Filings

Of the 101 patent infringement cases filed in the Federal Court in 2013, 12 related generally to oil and gas technology. This represented a substantial increase over 2012 where only 5 oil and gas patent infringement actions were filed. The 2013 cases are:

- Canadian Natural Resources Limited et al v. Noralta Technologies Inc. – T-16-13
- Trican Well Service Ltd. v. Interra Energy Services Ltd. – T-257-13
- Zero Spill Systems (Intl) Inc. et al v. 1284897 Alberta Ltd. et al – T-286-13
- Advantage Products Inc. et al v. Premium Artificial Lift Systems Ltd. – T-455-13
- Oil Lift Technology Inc. v. Domino Machine Inc. - T-754-13
- Oil Lift Technology Inc. v. Seabord Canada Inc. - T-756-13
- Packers Plus Energy Services Inc. v. Canuck Completions Ltd. – T-1202-13
- Nov Downhold Eurasia Limited et al v. TLL Oilfield Consulting Ltd. et al – T-1280-13
- C. Steven Skies et al v. Encana Corporation et al - T-1345-13
- Newsco Directional Support Services et al v. Drill-Tek MWD Services Ltd. - T-1524-13
- Newsco Directional Support Services et al v. Pulse Directional Technologies - T-1668-13
- Packers Plus Energy Services Inc. v. Essential Energy Services Ltd. et al - T-1741-13

Of these 12 cases, seven were filed in Toronto, three were filed in Calgary, and two were filed in Ottawa. The concentration of cases filed in Toronto is explained by the fact that lawyers typically file cases in the closest office, and Toronto has the largest concentration of patent litigators in Canada. The filing location is largely irrelevant, though it may dictate which Prothonotary is assigned to case manage the action (if any). The filing location is not believed to affect the assignment of the Judge.

Practitioners use the phrase “oil and gas” to describe a wide variety of technologies. Though mechanical engineering lies at the heart of many inventions in this sector, the application of those inventions can be quite varied. For example, the 12 cases filed in 2013 can generally be sub-categorized into the following areas:

- Downhole tool technology – 7 cases
- Environmental cleanup – 2 cases
- Wellbore treatment – 2 cases
- Hydraulic fracturing (“fracking”) – 1 case

Despite the range of applications for these cases, they will each ultimately be decided based on the application of patent law which generally, though not exclusively, is the same regardless of the technology at issue.

#### Decided Cases

Two significant patent infringement decisions were released in 2013 that dealt with technology squarely in the oil and gas sector. Those decisions are:

- (a) Varco Canada Ltd. v. Pason Systems Corp. et al, 2013 FC 750 (“Varco”)
- (b) Zero Spill Systems (Int’l) Inc. et al v. 614248 Alberta Ltd. (c.o.b. Lea-Der Coatings) et al, 2013 FC 616 (“Zero Spill”)

Below we review these decisions and provide a takeaway comment on matters of interest for future patent litigation in the oil and gas sector.

(a) Varco

The Varco case was a patent infringement action brought in respect of Canadian Patent No. 2,094,313 (the “313 Patent”). The Plaintiff (“Varco”) alleged that the Defendants (“Pason”) infringed the ‘313 Patent by making, selling, renting and exporting the “Pason AutoDriller”. The Pason AutoDriller is a directional and horizontal autodrill that used drilling fluid pressure in order to control the drill. It was developed by Pason with knowledge of Varco’s autodrill (the “Wildcat”) and despite advice from a Canadian patent agent that its device may infringe certain claims of the ‘313 Patent (if they were valid, which he doubted).

The ‘313 Patent is “focused on automatic drilling systems used in drilling rigs to regulate the release of a drill string during the drilling of a borehole.” It claims an automatic drilling system that uses drilling fluid pressure to allow for directional drilling.

The ‘313 Patent was drafted to protect Varco’s Wildcat drill, which was developed over a disputed period of time but tested on at least three occasions prior the filing of the patent application leading to the ‘313 Patent. That chronology factored heavily into Pason’s allegation that the ‘313 Patent was anticipated by the prior disclosure of the Wildcat (or, early versions of the Wildcat). That allegation of invalidity (and all others) was rejected. Justice Phelan held that the ‘313 Patent was both valid and infringed.

The question of infringement rested on the Court’s construction of claims 1, 11 and 14 of the ‘313 Patent and the Court’s preference for the evidence of Varco’s expert over Pason’s expert. Though no evidence of direct infringement was cited by Justice Phelan in his reasons, he explains that Pason’s inducement of infringement (based on the sales of the Pason AutoDriller, manuals, instructions and training) was not seriously disputed.

Of interest on infringement was the fact that Pason shipped its AutoDriller not only within Canada but also abroad. Because patents are territorial, a live issue was whether Pason’s shipments of the AutoDriller abroad infringed any claims of the ‘313 Patent. Justice Phelan held that “[t]he method claims, Claims 11 and 14, are infringed outside of Canada and are not directly protected by this Court’s jurisdiction.” Regardless, Justice Phelan held that Pason had infringed claim 1 because it was a product claim and because the sale of the infringing product occurs in Canada.

Pason alleged that the claims of the ‘313 Patent were invalid for the following reasons:

- Anticipation by prior disclosure (prior art);
- Anticipation by public use of the Wildcat (or, early versions);
- Obviousness;
- Inutility;

- Overbreadth; and
- Deemed abandonment / bad faith.

As mentioned above, each of these attacks were rejected. A brief analysis follows:

- Anticipation by prior disclosure (prior art): Two patents and a paper were each alleged to be anticipatory, though all were held to lack elements of the claimed invention. Interestingly, Justice Phelan noted that the "Le Compte patent" had been around since 1932 but that nobody had seen fit to use it to develop a directional autodrill as claimed. Justice Phelan's reasons suggest that the Court may find older references less compelling for invalidating a subsequent, commercially successful invention.
- Anticipation by public use of the Wildcat: It was undisputed that the inventor (Mr. Bowden) allowed versions of the Wildcat to be tested prior to filing his patent application. There were no confidentiality provisions associated with those prior uses. Justice Phelan held that "[t]here is no evidence that seeing the Wildcat metal box or even the dials for WOB and pressure would disclosure sufficient information for a Skilled Person to know how the device controlled the drill string and reacted to the two parameters. Access to the inner workings was precluded by Bowden locking the device in his absence." In so finding, Justice Phelan distinguished the trial decision in Wenzel Downhole Tools (though it is unclear from the reasons whether he was directed to the Federal Court of Appeal's decision which dealt directly with this issue). In addition, Justice Phelan suggested that the "experimental use" exception would have assisted Varco since the testing "was necessary to determine if the invention worked."
- Obviousness: The issue was whether it was obvious from the prior art to modify existing drills to become a pressure-sensing automatic driller. Similar to Justice Phelan's analysis with respect to anticipation, the passage of time and the fact that nobody else had "even come close to what Bowden invented" seems to have played a critical role in the outcome.
- Inutility: The key issue of inutility related to an admitted error in the language of claims 9 and 10. Justice Phelan held that the skilled person would have recognized the error and made the necessary correction. Accordingly, Pason's inutility allegation was rejected. Of note, after Pason had made its inutility allegation in this leadup to this case, Varco had applied ex parte to the Commissioner of Patents to correct the claim language. Justice Phelan was specifically critical of Plaintiffs' counsel's conduct, though it did not factor into his decision.
- Overbreadth: Justice Phelan dismissed Pason's allegation for the reasons he articulated under his inutility. No further analysis is provided.
- Deemed Abandonment: Justice Phelan relied heavily on the fact that the US equivalent of the '313 Patent had not been invalidated for "fraud on the patent office" despite the more stringent requirements imposed on US patent agents. Justice Phelan specifically declined to "go down the US route of 'inequitable conduct'".

#### Takeaway

Pason seemed to place heavy reliance on a theory of the case required the the Court to hold that Mr. Bowden was a liar and had given false testimony in order to account for insurmountable problems in his case. Though Justice Phelan seemed troubled at times with gaps or favourable shading in Mr. Bowden's testimony, Justice Phelan held that "his story remained generally consistent, plausible and credible." That finding seems to have

played a determinate role in the outcome of the case, particularly in answering Pason's allegation of anticipation by prior use.

Pason's complaint that the invention was anticipated by prior disclosure would have been addressed had Mr. Bowden required that companies sign confidentiality agreements when testing the early versions of his Wildcat. Inventors are well advised to take such steps when developing potential inventions, and to be mindful of the 1-year grace period (no more) afforded to inventors who disclose their inventions prior to filing.

#### (b) Zero Spill

The Zero Spill case generally relates to products designed to capture fluids (oil) leaking from a drilling rig. Three patents and one industrial design were at issue. At trial the Plaintiffs' action was dismissed,[26] while the counterclaim by 1284897 Alberta Ltd. seeking a declaration that Canadian Patent Nos. 2,166,265 (the "'265 Patent") and 2,258,064 (the "'064 Patent") are invalid was granted. Justice Barnes' order has been appealed.

Below is a review of Justice Barnes' decision with respect to each of the patents (two are mentioned above, the third is Canadian Patent No. 2,136,375 (the "'375 Patent")) and Industrial Design No. 86793.

#### '064 Patent

The '064 Patent relates generally to a containment tray that is mounted lower on the central stack of an oil well. The containment tray is formed by attaching sections of the tray to the central stack of an oil well or drilling rig. The claimed trays are designed to capture fluid falling from above and to drain the fluid for storage.

The '064 Patent was held to be invalid for three reasons:

- Anticipation by publication: Two prior patents were held to anticipate the claims of the '064 Patent. Justice Barnes held that "[b]oth of those patents describe divisible fluid containment trays that are fixed to a wellhead pipe beneath a well floor with a sealed flange." Of the Plaintiffs' written argument disputing these prior patents, Justice Barnes held that it "does not answer the obvious fact that both patents achieve the same purpose by exactly the same means."
- Anticipation by prior use: Justice Barnes received testimony from industry witnesses who testified to the use of containment trays "that came in many shapes and sizes and employed a variety of connection and sealing methods." The Defendants' expert Mr. Thicke's evidence on this point was preferred to that of Mr. Wallace who testified on behalf of the Plaintiffs. Those prior uses were held to be anticipatory.
- Obviousness: Justice Barnes held that "[t]here is nothing innovative about a sectional fluid containment tray attached to the central stack of an oil well or drilling rig", which is essentially what the inventor claimed. Furthermore, Justice Barnes, preferring Mr. Thicke's evidence, held that "there is nothing about the design or fit up of the '064 Patent lower tray that would not have been obvious to a person of skill long before July 7, 2000."

The claims of the '064 Patent were also held to be not infringed by the Defendants' lower tray (the "Rat Plastic" lower tray). Each of the claims refers to coupling of "mating" and "non-mating" edges to form a single containment cavity. The Rat Plastic tray did not infringe the claims of the '064 Patent because it employs two separately drained containment trays and because the trays "abut but do not mate." The Rat Plastic tray also did not infringe because the claims were construed to be "confined to the use of the apparatus on a developed oil well where the problem is one of leaking oil and not drilling fluids." The "uncontradicted evidence" was that the Defendants had not offered the lower containment trays for use on completed oil wells.

### '375 Patent

The '375 Patent relates generally to an upper containment tray that moves telescopically relative to a fixed annular seal. The term “telescopically” refers to the capacity for axial movement of the tray within the limits or stops of the sealing area of the tray collar. Justice Barnes held that the claims of the '375 Patent refer to the capacity of the containment tray to “self-adjust without the seal between the tray and the flow nipple flange being compromised.”

Justice Barnes held that the '375 Patent was not rendered invalid by anticipation or obviousness (the only invalidity allegations addressed by Justice Barnes in respect of the '375 Patent). Justice Barnes held that “as far as I can tell from the evidence” the seal described by the '375 Patent was simple but unique to the inventors' application. Though telescopic seals were known in the prior art, Justice Barnes held that “that knowledge pertained to either different applications or to seals that were more complex in design.”

Justice Barnes held that the Defendants' products (the “Stealth” system and the “Rat Plastic” upper tray) did not infringe the claims of the '375 Patent. The solution taught and claimed in the '375 Patent required a tight seal to be maintained at all times between the descending tray collar and the flow nipple flange. That seal “is achieved using a flexible gasket or rubber seal held securely in place within a channel in the flow nipple flange.” The Defendants' products did not employ the solution taught and claimed in the '375 Patent, but rather employed solutions that were “much closer in design to some of the examples of prior use described by the industry witnesses and in the prior art”.

### '265 Patent

The '265 Patent was not asserted by the Plaintiffs at trial, but was the subject of a counterclaim seeking a declaration of invalidity. The counterclaim was granted on the basis that the '265 Patent was invalid for being obvious. Justice Barnes held that the “slight” differences between the prior art and the method described in the '265 Patent involved no inventive ingenuity but rather involved routine adaptations.

### Industrial Design

The final matter with respect to liability involves the Plaintiffs' allegation that certain “CAPP line pipe trays” infringed the '793 Design. Justice Barnes' decision on this issue is notable if for no other reason than industrial design decisions are relatively rare as compared with patent decisions.

Justice Barnes noted the similarities between the Defendants' trays and the '793 Design; however, the design of the Defendants' trays was driven by functional considerations. The impugned trays did not trade on the aesthetic features of the design. Notably, Justice Barnes held that “[w]hen an industrial design incorporates fundamentally functional features even small differences in ornamentation can be sufficient to take the second design out of the ambit of an earlier design registration.” Justice Barnes held that the differences between the impugned trays and the design were sufficient to defeat the Plaintiffs' infringement allegation.

### Takeaway

Ultimately, the Zero Spill decision hinged largely on Justice Barnes' construction of the claims at issue. Though the technology was relatively straightforward, Justice Barnes did receive testimony from experts in the field. Justice Barnes' receipt of evidence from persons in the field, and his reliance on that evidence to establish prior use, is notable given the often close-knit nature of inventors and engineers in the industry and their efforts to keep abreast of and build upon new ideas.