IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

CIVIL ACTION NO. 07-CV-02371-WYD-BNB

CITY OF AURORA, Colorado, a municipal corporation,
acting by and through its Utility Enterprise, Aurora Water,

PLAINTIFF AND COUNTERCLAIM-DEFENDANT,

and

GRIMM CONSTRUCTION COMPANY, INC.,
d/b/a GARNEY CONSTRUCTION, a Colorado corporation,

COUNTERCLAIM-DEFENDANT,

vs.

PS SYSTEMS, INC., a Colorado corporation,
and RAR Group, LLC, a Colorado limited
liability company,

DEFENDANTS AND COUNTERCLAIMANTS.

PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT OF NON-INFRINGEMENT OF U.S. PATENT NO. 6,840,710 AND BRIEF IN SUPPORT OF SAME

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Plaintiff, the City of Aurora ("Aurora"), hereby moves for summary judgment on Claim One of its Complaint: Declaratory Judgment of Non-Infringement of U.S. Patent No. 6,840,710 (the "Patent"). In support of its motion, Aurora states:

I. MOTION FOR SUMMARY JUDGMENT

Aurora seeks a declaration that the ARR portion of Aurora's Prairie Waters Project does not infringe the Patent, either literally or under the doctrine of equivalents. The ARR design does not include "a slurry wall defining a closed boundary which is keyed into the aquiclude" (bedrock) as required by independent claims 1 and 14 of the Patent. Further, the ARR design does not contain the drainage system described in independent claim 19 of the Patent, nor, for that matter, does it contain any drainage system. Accordingly, the design of Aurora's ARR natural water filtration system does not infringe the Patent.

II. SUMMARY JUDGMENT STANDARD

Summary judgment is not a "disfavored procedural shortcut, but rather [is] an integral part of the Federal Rules as a whole, which are designed to secure the just, speedy and inexpensive determination of every action." *Newport Steel Corp. v. Thompson*, 757 F.Supp. 1152, 1154 (D. Colo. 1990) (*citing Celotex Corp. v. Catrett*, 477 U.S. 317, 327 (1986)). Summary judgment should be granted when the "pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits ... show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c).

III. LAW AND ARGUMENT

Resolution of a cause of action for patent infringement is a two-step process. *See Clearstream Wastewater Sys., Inc. v. Hydro-Action, Inc.*, 206 F.3d 1440, 1444 (Fed. Cir. 2000); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995). As an initial matter,

the Court must establish the scope and meaning of the claims. *Clearstream*, 206 F.3d at 1444. Only then can the fact finder compare the construed claims to the accused product to determine infringement or non-infringement of a patent claim. *See Teleflex, Inc. v. Ficosa N. Am. Corp.,* 299 F.3d 1313, 1323 (Fed. Cir. 2002).

In interpreting the claims, the Court should first examine the intrinsic record. *Phillips v. AWH Corp.,* 415 F.3d 1303, 1317 (Fed. Cir. 2005). Claim construction begins with examination of the patent claim language itself. Initially, the claim term's ordinary and customary meaning, as understood by persons with ordinary skill in the art, serves as the meaning of the claim language. *Id*. at 1313. "Claims must be read in view of the specification, of which they are a part." *Markman*, 52 F.3d at 979.

"[I]t is always necessary to review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning. The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The specification is particularly significant because it contains a written description of the invention that must enable an individual of ordinary skill in the art to make and use the invention. *Id.* "Thus, the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; *it is the single best guide to the meaning of a disputed term*." *Id*. (emphasis added). Drawings (or "figures") of the specification may also serve as a source of definition. *Id.*; *Teleflex*, 299 F.3d at 1324.

The prosecution history, which constitutes the complete record of the proceedings before the United States Patent & Trademark Office ("USPTO") and includes the prior art cited during examination of the patent, is also analyzed as part of the intrinsic evidence. "Like the

specification, the prosecution history provides evidence of how the [US]PTO and the inventor understood the patent." *Phillips*, 415 F.3d at 1317.[1] Here, the intrinsic evidence demonstrates that Aurora's ARR design cannot infringe the Patent because the ARR barrier does not have a closed slurry wall, but instead will be composed of grout columns and slurry.

A. CLAIM CONSTRUCTION FOR THE '710 PATENT

The Patent has three independent claims: 1, 14, and 19. Claim 1 describes a reservoir, claim 14 a method for storing water underground, and claim 19 a method of drainage.[2]

1. Claims 1 and 14.

Construction of both independent claims 1 and 14 of the Patent reveals each requires "a slurry wall defining a closed boundary" around the underground reservoir. Examination of the meaning of the claim language, with reference to the Specification and surrounding claims and the prosecution history[3] demonstrates independent claims 1 and 14 are limited by the use of a keyed-in slurry wall that completely encircles the underground reservoir in an uninterrupted manner. Here, the Specification teaches away from the use of grout (as opposed to slurry) to form the wall of the underground reservoir. The prosecution history also supports that interpretation; it contains an express disavowal of the use of grout in the claimed invention.

[1] Courts may also look to extrinsic evidence, such as inventor or expert testimony, dictionaries, encyclopedias, and treatises, to assist in the construction of claims and to determine how a person of ordinary skill in the art would understand the claim terms. *See Digital Biometrics, Inc. v. Identix, Inc*., 149 F.3d 1335, 1344 (Fed. Cir. 1998). Adverse admissions by a party may be relied on to show the meaning of a claim term to persons of ordinary skill in the art. *See Gillette Co. v. Energizer Holdings, Inc*., 405 F.3d 1367, 1374 (Fed. Cir. 2005).

[2] *See* "Statement of Undisputed Material Facts in Support of Summary Judgment on Non-Infringement of the "710 Patent," ("Facts") submitted contemporaneously with this Motion and Brief.

[3] The *Phillips* case requires analysis of both the specification and prosecution history in claims construction. 415 F. 3d at 1315-17.

a. The Claim Phrase "A Slurry Wall Defining A Closed Boundary" Means "A Single, Uninterrupted Slurry Wall that Completely Surrounds the Underground Reservoir (or Alluvial Deposits) in an Uninterrupted Manner".

Independent claims[4] 1 and 14 of the Patent have similar language, which limit the structure of the confining wall of the underground reservoir described in the Patent: The wall must be made of slurry, and it must be continuous. Independent claim 1 of the Patent recites "**a slurry wall defining a closed boundary for the underground reservoir**." The claim reads:

> An underground reservoir for storing water in alluvial deposits comprising:
>
> **a slurry wall defining a closed boundary for the underground reservoir**, the slurry wall extending from a surface level to an aquiclude beneath the reservoir **so that a bottom surface of the slurry wall is keyed into the aquiclude** to form a substantially impermeable water seal between the slurry wall and the aquiclude; and a plurality of water extraction/recharge means distributed about the underground reservoir to provide for substantially even filling and draining operations of the underground reservoir.

(Ex. 10, Patent, col. 12, lines 51-63 (emphases added)).

Similarly, independent claim 14 recites "**constructing an underground slurry wall defining a closed boundary around the underground alluvial deposits**." The claim reads:

> A method for storing water in underground alluvial deposits comprising the steps of:
>
> constructing an **underground slurry wall defining a closed boundary around the underground alluvial deposits**, the slurry wall extending from a surface level to an aquiclude beneath the alluvial deposits so **that a bottom surface of the slurry wall is keyed into the aquiclude** to form a substantially impermeable water seal between the slurry wall and the aquiclude; and alternately extracting and recharging the underground alluvial deposits with water.

(*Id.* at col. 14, lines 35-45 (emphases added)).

Construction of the claims here must begin by examining how the language "a slurry wall defining a closed boundary for the underground reservoir" and "an underground slurry wall

[4] Claims 1, 14 an 19 are the independent claims of the Patent. Dependent claims 2-13, 15-18 and 20-21 necessarily include the elements of claims 1, 14, and 19, respectively, so any finding by this court of non-infringement of the independent claims would also encompass the dependent claims. *See Jeneric/Pentron, Inc. v. Dillon Co.*, 205 F.3d 1377, 1383 (Fed. Cir. 2000).

defining a closed boundary around the underground alluvial deposits" is used in the language of claims 1 and 14.

First, it is notable and important that the claims recite the slurry walls in singular form: "**a** slurry wall" (claim 1) and "**an** underground slurry wall" (claim 14). The inventors and their patent attorneys chose to use that wording, as opposed to selecting wording such as "at least one slurry wall" or "one or more slurry walls" or "a plurality of slurry walls." The inventors' choice of words demonstrates they contemplated only a single slurry wall at the time they filed the application for the Patent. *See Tivo, Inc. v. EchoStar Commc'ns Corp.*, 516 F.3d 1290, 1303-04 (Fed. Cir. 2008). Had the inventors contemplated a boundary formed by multiple slurry walls, they would have described, shown and claimed such structure. But they did not.

Second, the word "defining," as used in both claims, requires that the slurry wall define **a closed boundary** for the underground reservoir. The plain meaning of the language in both claims 1 and 14 instructs that the slurry wall itself must surround the underground water storage area in a closed manner in order to define the closed boundary for the reservoir.[5]

Examination of claim 12, a dependent claim that depends from claim 1, supports this interpretation; it provides for "[a]n underground storage reservoir as defined in claim 1 further comprising an open reservoir formed within **the closed boundary of the slurry wall**." (Ex. 10, Patent, col. 14, lines 25-27 (emphasis added)). The emphasized language of claim 12 reinforces the fact that the slurry wall forms a closed boundary. Furthermore, the emphasized language refers back to claim 1, as indicated by the definite article "the" that precedes the word "closed" in claim 12. This is in accordance with the formal rule of patent claim drafting known as the

[5] The definition of "define" is "to specify or fix distinctly" or "to delineate the outline or form of." *Webster's II New College Dictionary* (2001). "Closed" means "having boundaries: enclosed." *Id.* Extrinsic sources, in particular dictionaries or technical treatises, are acceptable for the purpose of construing claim terms, as long as those sources are not used to contradict claim meaning that is unambiguous in light of the intrinsic evidence. *Phillips*, 415 F.3d at 1322-23.

"antecedent basis requirement," which requires that once an element is introduced into a claim, any subsequent use of the element in the same claim or in a dependent claim must be introduced by the word "the." *See* 37 C.F.R. § 1.75(d)(1). Consequently, the language "closed boundary of the slurry wall" in claim 12 refers back to "a slurry wall defining a closed boundary" in claim 1. Because claim 12 makes it clear that the slurry wall forms a closed boundary, the language of claim 1, then, must necessarily mean that the slurry wall forms a closed boundary.

Any argument that dependent claim 13 dictates a different construction of the claim "a slurry wall defining a closed boundary" would also be inapposite. Claim 13 reads: "An underground reservoir as defined in claim 1 wherein: the slurry wall defines an open boundary along one side of the underground reservoir [which] abuts an open reservoir to permit an exchange of water between the open reservoir and the underground reservoir." (Ex 10, Patent, col. 14, lines 27-34). The language of claim 13 conforms with the description of the invention at column 11, lines 58-61 of the Specification, in that the slurry wall would form a closed boundary around the underground storage reservoir (as required by claim 1), by virtue of encircling the combined open reservoir and the underground storage reservoir. Also, the inventors' use of the term "open boundary" in dependent claim 13 demonstrates the use of the term "closed boundary" in claim 1 means a boundary without openings or discontinuities.

In construing patent claim terms, "it is necessary to consider the specification as a whole, and to read all portions of the written description, if possible, in a manner that renders the patent internally consistent." *Budde v. Harley-Davidson Inc.*, 250 F.3d 1369, 1380 (Fed. Cir. 2001). The recited function of claim 1 is to form an underground reservoir for storing water. To form a reservoir, one must completely encircle the water. Any interpretation that "a slurry wall defining a closed boundary" means only a portion of the closed boundary is made from the slurry wall

would be defective for failing to state the other components used to form the remaining portion of the closed boundary of the reservoir, and would be inconsistent with claim 1's purpose.

Finally, the phrase "a slurry wall defining a closed boundary" must take the same meaning in independent claim 14 as it does in independent claim 1. *See, e.g., Georgia-Pacific Corp. v. United States Gypsum Co.*, 195 F.3d 1322, 1331 (Fed. Cir. 1999) ("Unless the patent otherwise provides, a claim term cannot be given a different meaning in the various claims of the same patent").

Under an ordinary reading of claims 1 and 14, then, the terms "a slurry wall defining **a closed boundary for the underground reservoir**" and "**an underground slurry wall defining a closed boundary around the underground alluvial deposits**" must be construed to mean "**a single, uninterrupted slurry wall that completely surrounds the underground reservoir (or alluvial deposits) in an uninterrupted manner.**"

b. <u>The Specification Supports the Proposed Interpretation</u>

The Specification of the Patent supports the above definition. In the "Summary of the Invention," the inventors described an embodiment that tracks claims 1 and 14:

> In another embodiment of the present invention, a method for storing water in underground alluvial deposits includes the step of **constructing an underground slurry wall** to surround the alluvial deposits so that a bottom end of the slurry wall is keyed into an aquiclude running beneath the alluvial deposits, thereby forming a substantially impermeable water seal between the slurry wall and the aquiclude.

(Patent, col. 4, lines 13-26, emphasis added.) Here, the slurry wall is described as surrounding the alluvial deposits, further supporting the claim construction set forth above. And the language of the Specification is clear that the "slurry wall. . . is formed about the perimeter of the underground reservoir." (Ex. 10 at col. 7, lines 7-8.) Also, Figure 1 (a reservoir plan view), and Figure 2 (a sectional view of the reservoir shown in Figure 1) both depict that the slurry wall

completely surrounds the underground reservoir. Thus, for a slurry wall to clearly limit or define a closed boundary, the slurry wall necessarily must extend entirely around the reservoir.

The physical composition of the wall is also a claim limitation here. When an applicant in the specification dictates the claim scope by explaining certain features are not intended to be part of the invention, the applicant has expressly disavowed those features. *Phillips,* 415 F.3d at 1316. The Specification here shows the applicants expressly disavowed the use of grout in their invention. The phrase "underground slurry wall" defines the use of slurry, not grout, to form the reservoir's walls. As discussed below, the inventors' application for what later became the Patent was initially rejected by the Examiner on the basis of anticipation by an earlier patent, the Willis Patent, which described an underground reservoir confined by grout, instead of slurry walls. In overcoming that rejection, the inventors taught away from the use of grout. The Specification of the Patent was written with many references, therefore, which would lead a person of ordinary skill in the art to understand that the named inventors were advocating the replacement of the closed perimeter of the Willis Patent's grout wall with a closed perimeter slurry wall.

In the Patent, the inventors repeatedly emphasized important benefits of slurry over grout as being: (1) lower cost; and (2) greater effectiveness. In contrast to slurry, they stated, grout is not as impermeable: the "water leakage rates of a reservoir built according to the technique of the Willis Patent would be prohibitively high," because grout cannot be "keyed" into the aquiclude. (Ex. 10, Patent, col. 2, lines 52-54). Moreover,

> [W]hile the Willis patent describes one theoretical design for a subsurface reservoir, the specifics of the Willis reservoir are not feasible due both to the inability to form a water-tight reservoir and the further inability to efficiently recharge and extract water from the reservoir.

(*Id.*, col. 3, lines 20-24.)

> **[T]he use of slurry walls ... in place of the grout walls described in the Willis patent provides a number of benefits, including substantially lower rates of water leakage or seepage and substantially reduced construction costs....**

(*Id.*, col. 6, lines 60-64 (emphasis added)).

> The above-described underground reservoir [of the '710] ... includes a variety of improvements over prior art underground (alluvial) reservoirs such as described in ... to Willis. **Specifically, the use of slurry walls that are keyed into the underlying bedrock (in place of the more costly grout walls) ensures a substantially impermeable border for the reservoir ....**

(*Id.*, col. 11, lines 1-7 (emphasis added)).

c. <u>The Prosecution File History Supports the Proposed Interpretation</u>

As with the specification, the prosecution history can create an express disavowal by demonstrating how the inventors understood the invention and whether it was limited in the course of prosecution. *Phillips*, 415 F.3d at 1317. The prosecution history shows the inventors expressly disavowed that their claimed technology covered any system that includes grout columns. For example, in their First Provisional Application, the inventors stated: "The use of slurry wall construction allows cost-effective permeability reduction ... whereas grouted curtain wall construction is more expensive and would not achieve a tight seal with underlying bedrock configuration." (Ex. 11 at 3). And when the Examiner in its First Office Action (Ex. 12) initially rejected the claims on the basis that they were anticipated by the Willis patent, the inventors' response forcefully distinguished the use of grout walls in order to traverse Willis:

> ... [T]he present claims purposefully recited the use of a "slurry wall" having a bottom end that is "keyed into the aquiclude to form a substantially impermeable water seal between the slurry wall and the aquiclude." **These claim limitations clearly distinguish the present invention from the Willis patent which does not describe or even suggest the use of such slurry walls ...Furthermore, it is incorrect to characterize the Willis grout wall as a "slurry wall" since grout walls are formed in a significantly different manner than the claimed slurry walls.**
>
> ***
>
> As described in the application itself, as well as in the attached Rule 132 Declaration of [named inventor] Stan Peters, **those skilled in the art understand there are significant differences between "grout walls" and**

> **"slurry walls," and further understand the concept of "keying" a slurry wall into an underlying aquiclude does not apply to grout walls.**

(Ex. 8, Response to First Office Action, p. 9-10 (emphases added)).

In a declaration which is also part of the Response, named inventor, Mr. Peters stated, *inter alia*:

> 4. While our patent application specifically distinguishes the grout walls described in the Willis patent, the present Declaration is submitted to further **explain the differences between grout walls as disclosed in Willis and the "slurry wall" recited in the present claims.**
>
> ***
>
> 6. **Slurry walls differ markedly from grout walls** in that construction of a slurry wall first entails digging or trenching the soil along the path of the wall to predetermined depth (typically 2-5 feet) below the level of the aquiclude.
>
> ***
>
> 8. Due to the differences in the permeability of "grout walls" and "slurry walls," slurry walls are typically used in situations where seepage through the wall must be strictly controlled (such as in the containment of hazardous waste)... **Grout walls are known to have higher permeability rates than slurry walls ... [I]t is this same relatively high permeability rate that makes grout walls undesirable for use in long-term water storage applications (such as claimed in the present Application)..."grouting should not be depended upon to eliminate seepage**".
>
> ***
>
> 10. Keying the wall material into the bedrock formation is critical to obtaining a seepage-resistant seal. Continuous, effective keying is analogous to the seam between the walls and bottom of a metal bucket that must be properly constructed to prevent leakage. The impervious materials that form the bucket are ineffective if the seam leaks. Willis' omission of requiring a continuous key into bedrock would result in a storage reservoir with unacceptable levels of leakage.

(Ex. 8, Declaration of Stanley R. Peters, Response, at A05485 (emphases added)).

d. <u>The Extrinsic Evidence Supports the Proposed Interpretation</u>

Not only did the applicants represent to the Examiner during prosecution of the Patent that their system would improve upon the Willis Patent's grout wall with a keyed-in slurry wall, but named inventors Messrs. Beeson, Summers and Peters, their patent counsel Mr. Phillips and their retained expert Mr. Lidstone confirmed that that the use of grout walls was not contemplated by the inventors in their application. (Ex.15, R. Beeson Dep. at 131:1-16).

Further, and most important, he testified that the claimed technology of the Patent does not contemplate the use of grout curtains, grout columns, or walls. (*Id.* at 131:1-16).

Mr. Peters testified that grout cannot be "keyed" into the acquiclude, and for that reason, slurry selected over grout for the claimed invention. (Ex. 6, S. Peters Dep. at 191; 192:1-10). He also testified that grout is too expensive and not as effective and flexible as slurry. (*Id.* at 208:19-22; 210:10-19; 212:7-14). Mr. Summers testified that grout would not achieve as tight a seal as slurry with the underlying bedrock configuration (Ex. 14, D. Summers Dep. at 234:1-25), and that grout is more expensive than slurry. (*Id.* at 235:1-24). Defendants' patent counsel confirmed there were "significant differences" between grout and slurry walls, and that the relative high impermeability of grout walls renders them inappropriate for use in underground reservoirs where seepage must be tightly controlled, as claimed in the '710 application. (Ex. 16, J. Phillips Dep. at 50:24-25; 51). He also confirmed water leakage rates of a reservoir built according to the Willis Patent would be prohibitively high. (*Id.* at 67:6-24). Defendants' expert, Mr. Lidstone, testified that a slurry wall is less expensive than grout (Ex. 17, C. Lidstone Dep. at 78:6-15; 79:7-11; 85:4-15), and that slurry functions better than grout. (*Id.* at 126:1-19).

2. Claim 19.

Independent Claim 19 describes a drainage system:

> Claim 19 requires "burying an uphill perforated pipe outside of a boundary of the underground reservoir," "burying a downhill perforated pipe outside of the boundary of the underground reservoir," and "connecting a non-perforated conduit between the uphill perforated pipe and the downhill perforated pipe."

(Ex. 10, Patent, col. 15, line 31 – col. 16, line 12). The ARR design does not contain a drainage system. (Ex. 4, M. Pifher Aff. at ¶ 9).

B. THE UNDISPUTED MATERIAL FACTS DEMONSTRATE THAT BECAUSE THE ARR DESIGN DOES NOT FEATURE A CONTINUOUS CLOSED SLURRY WALL, IT DOES NOT INFRINGE THE '710 PATENT.

Comparison of the above claims to the design of the ARR demonstrates the claims of the Patent do not read on the ARR. The Patent contemplates the use of a continuous keyed-in slurry wall to completely surround alluvial deposits in which water can be stored in an underground reservoir. In contrast, the ARR's low-permeability barrier is composed of two discontinuous slurry walls that are intersected at two locations by two distinct segments of jet grout columns, which are necessary to support the weight of traffic on a county road which traverses the ARR site. (Ex. 4, M. Pifher Aff. at ¶ 7; Ex. 7, D. Deere Aff. at ¶ 7; Ex. 4 (Attachment A), Drawing Sheets P05C-40, P45C-7 & P45C-9 through P45C-15). Because the underground barrier at the ARR will not be a closed, continuous, keyed-in slurry wall, the design of the ARR cannot infringe the Patent, either literally or under the doctrine of equivalents.

1. The ARR Design Does Not Literally Infringe the Claims of the '710 Patent

"To establish literal infringement, every limitation set forth in a claim must be found in the accused product exactly." *Engineered Data Prods., Inc. v. Art Style Printing, Inc.*, 78 F. Supp. 2d 1163, 1168 (D. Colo. 1999) (citations omitted). "[F]ailure to meet a single limitation is sufficient to negate infringement." *Id.* Literal infringement of a claim occurs only when every limitation recited in the claim appears in the accused device, exactly as those limitations are defined in the claim. *See CCC Group, Inc. v. Martin Eng'g Co.*, 2008 U.S. Dist. LEXIS 70578 (D. Colo. Sept. 17, 2008) at *6 (*citing DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1334 (Fed. Cir. 2001)) (attached to Facts as Ex. 18).

Independent Claims 1 and 14 each require a "slurry wall defining a closed boundary." As discussed above, this claim language should be construed to mean "a slurry wall that completely surrounds the underground reservoir (or alluvial deposits) in an uninterrupted manner." The

low-permeability barrier of Aurora's ARR barrier does not satisfy that requirement. Instead, the ARR's low-permeability barrier is composed of four segments: two distinct slurry wall segments, which are separated by two grout column segments. (Facts at ¶ 18; M. Pifher Aff. at ¶ 5). The ARR does not contain a "slurry wall defining a closed boundary."

Accordingly, the Project does not literally infringe claims 1 and 14 because it does not utilize a "slurry wall defining a closed boundary" around the proposed reservoir – *i.e.*, in an uninterrupted manner. Because dependent claims 2-13 depend from claim 1, and dependent claims 15-18 depend from claim 14, those dependent claims necessarily include the limitations of claims 1 and 14, respectively. *See Jeneric/Pentron*, 205 F.3d at 1383. The ARR design therefore also does not literally infringe any of dependent claims 2-13 and 15-18. *See id.*

Finally, the ARR design cannot literally infringe claim 19 and the claims that depend from it, because the ARR does not contain a drainage system. (M. Pifher Aff. at ¶ 9). There can be no infringement as a matter of law of a claim if a claim limitation is wholly absent. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1539 (Fed. Cir. 1991) (citations omitted).

2. <u>The ARR Design Does Not Infringe the Claims of the '710 Patent Under the Doctrine of Equivalents.</u>

A claim element may be infringed under the doctrine of equivalents if the accused device performs substantially the same function, in substantially the same way, to achieve substantially the same result, as the claim element. *Precision Metal Fabricators, Inc. v. Jetstream Sys. Co.*, 693 F. Supp. 814, 818-19 (N.D. Cal. 1988). Because the inventors argued in their responses to the Examiner that grout walls and slurry walls were superior to and distinguishable from grout columns for at least two substantial reasons, and they teach away from grout in the patent, the inventors cannot now argue that the grout wall columns included in the ARR's low-permeability barrier are equivalent to the slurry walls recited by claims 1 and 14. Claims 1 and 14 cannot now

be construed to re-capture what the inventors clearly gave up: grout walls. "The doctrine of prosecution history estoppel limits the doctrine of equivalents when an applicant makes a narrowing amendment for purposes of patentability, or clearly and unmistakably surrenders subject matter by arguments made to an examiner." *CCC Group*, 2008 U.S. Dist. LEXIS 70578 at *27; *see also Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1252 (Fed Cir. 2000) ("Unmistakable assertions made by the applicant to [the Examiner] in support of patentability, whether or not required to secure allowance of the claim, ... may operate to preclude the patentee from asserting equivalency...." (citations omitted)).

Although an element in an accused device may be equivalent to a claim limitation if the differences between the two are insubstantial, equivalence must be evaluated with respect to individual elements and limitations of the claim, not the inclusion as a whole. *CCC Group* at *6 (citations omitted). Defendants cannot credibly argue now that grout is an "insubstantial" change from slurry, after arguing to the Examiner that the Willis grout wall could not perform like the slurry wall claimed in their invention, for the specific delineated reasons set out above.

Further, Defendants cannot argue effectively that the open boundary of the ARR slurry walls is equivalent to the closed boundary recited by claims 1 and 14. That construction would essentially remove the "closed boundary" element from claims 1 and 14. Under the All Elements Rule, "there can be no infringement under the doctrine of equivalents if even one element of a claim or its equivalent is not present in the accused device." *Bell Atlantic Network Svcs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1279 (Fed. Cir. 2001). Where a theory of equivalence would vitiate a claim limitation, there can be no infringement under the doctrine of equivalents as a matter of law. *PSN Illinois, LLC v. Ivoclar Vivadent, Inc.*, 525 F.3d 1159, 1168 (Fed. Cir. 2008) (citations omitted). As this Court has aptly observed, "The doctrine of

equivalents is not a license to ignore claim limitations." *CCC Group* at *34 (*quoting Dolly, Inc. v. Spalding & Evenflo Cos.*, 16 F.3d 394, 398 (Fed. Cir. 1994)).

Because the ARR does not have a closed slurry wall, and grout segment walls cannot be considered to be equivalent to slurry walls as recited by claims 1 and 14, the combination of the slurry walls and the grout walls in the ARR design does not constitute an equivalent of "a slurry wall that defines a closed boundary" as required by claims 1 and 14, and the ARR does not infringe under the doctrine of equivalents.

IV. CONCLUSION

The ARR portion of Aurora's Prairie Waters Project does not infringe the U.S. Patent No. 6,840,710 either literally or under the doctrine of equivalents. The ARR design does not include a "slurry wall defining a closed boundary which is keyed into the aquiclude," as required by independent claims 1 and 14 of the Patent. Nor does the ARR design include the drainage system identified in by independent claim 19 of the Patent, or any other drainage system. Accordingly, the design of Aurora's ARR natural water filtration system does not infringe, and the City of Aurora respectfully requests that the Court enter summary judgment in Aurora's favor on its claim for declaratory judgment of non-infringement of the '710 Patent.

Dated: this 7th day of October, 2008

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CERTIFICATE OF SERVICE

I hereby certify that on October 7, 2008, I served the foregoing **PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT OF NON-INFRINGEMENT OF U.S. PATENT NO. 6,840,710 AND BRIEF IN SUPPORT OF SAME** by ECF upon the following:

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