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**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF UTAH, CENTRAL DIVISION**

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CRYSTAL LAGOONS U.S. CORP. AND  
CRYSTAL LAGOONS TECHNOLOGIES  
INC.,

Plaintiffs,

vs.

PACIFIC AQUASCAPE INTERNATIONAL  
INC.,

Defendant

**COMPLAINT**

Case No. 2:21-cv-00507-DBP

Magistrate Judge Dustin B. Pead

**JURY TRIAL DEMANDED**

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Plaintiffs Crystal Lagoons U.S. Corp. and Crystal Lagoons Technologies Inc. (“Crystal Lagoons”), through its undersigned attorneys, for its Complaint against Defendant Pacific Aquascape International, Inc. (“Pacific Aquascape”) alleges as follows:

**I. THE PARTIES**

1. Crystal Lagoons U.S. Corp. is a Delaware corporation with its principal place of business at 2 Alhambra Plaza, PH1B, Coral Gables, FL 33134.
2. Crystal Lagoons Technologies Inc. is a Delaware corporation with a place of business at 1209 Orange Street, Wilmington, DE 19801. Crystal Lagoons U.S. Corp. and Crystal Lagoons Technologies Inc. are collectively referred to as “Crystal Lagoons” herein unless the context indicates otherwise.
3. On information and belief, Pacific Aquascape International, Inc. is a Utah corporation with its principal place of business at 17520 Newhope Street, #120, Fountain Valley, California 92780.

**II. JURISDICTION**

4. This is an action for patent infringement arising under the Acts of Congress relating to patents, 35 U.S.C. §§ 271, *et seq.*
5. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).
6. This Court has personal jurisdiction over Pacific Aquascape because Pacific Aquascape is a Utah corporation.
7. Venue is proper in this District under 28 U.S.C. §1400(b) because Pacific Aquascape resides in this district, having its place of incorporation here.

**III. BACKGROUND OF CONVENTIONAL SWIMMING POOLS AND CRYSTAL LAGOONS' INNOVATIVE LAGOON TECHNOLOGY**

8. Crystal Lagoons has developed and patented a technology that allows building and maintaining large man-made lagoons with high transparency and excellent water quality at low costs, and that is changing the lifestyle of people worldwide. Crystal Lagoons' technology is one of the most innovative and important technologies of recent years in the world. With over 2,000 patents in 190 countries, Crystal Lagoons is responsible for more than 70 projects already in operation and in construction stages, and more than 1,000 projects globally in discussions, negotiation or planning stages worldwide, bringing beach life to every corner of the world.
9. Inventor Fernando Fischmann, a real estate developer and biochemist, had started planning a second-home real estate development called San Alfonso del Mar, in a small town on Chile's central coast. Although the site had a fantastic view of the sea and was close to Santiago (Chile's capital), the local shoreline was unattractive due to cold-water temperatures, as well as the dangerous waves and undercurrents, which posed a risk to bathers, who were forbidden to swim or practice watersports in the area. Mr. Fischmann envisioned creating an enormous lagoon 0.6 miles long and 20 acres in surface area, with turquoise waters that could provide a safe way to swim and enjoy watersports in a clean and family-friendly environment.
10. Mr. Fischmann traveled around the world to the United States, Australia, Germany, and other countries looking for a company that was able to turn his vision into a reality, and he was repeatedly told that the only technology that existed to provide recreational water bodies for swimming was conventional swimming pool

construction and operation technology, and that it was not viable or economically feasible to have such large water bodies with excellent water quality and transparency, and he would never succeed in creating such a technology.

11. The San Alfonso del Mar lagoon envisioned by Mr. Fischmann is equivalent to 6,000 residential pools, and therefore using traditional pool construction and operation technologies would make such a structure unviable technically and economically.
12. Mr. Fischmann, a trained biochemist, conducted research for more than 7 years to develop a technology that allowed building a low-cost structure to maintain such a large water body, and also for maintaining the water with an innovative water treatment technology that uses up to 100 times less chemicals and up to 50 times less electricity than conventional swimming pool technology. This state-of-the-art technology allows creating and operating recreational water bodies of any size with excellent water quality and transparency at low costs.
13. Mr. Fischmann invented a new structure, with specific technical features and elements, in order to create a low-cost structure to contain large water bodies used for recreational purposes, which was first used in the construction of the first lagoon at San Alfonso del Mar. This technology included, among others, the use of a plastic liner instead of a complete concrete shell, where the liner is mostly installed directly over soil or compacted sand. This had not been done anywhere else in the world to create large man-made lagoons with turquoise water similar to tropical seas for recreational purposes such as swimming and the practice of water sports. Further, Mr. Fischmann invented a new water treatment technology that uses flocculation to settle

particles and contaminants to the bottom of the large water bodies, and removing such settled material with a cleaning system.

14. Over the years, Mr. Fischmann has invented many technologies, including systems and methods for water treatment, bottom cleaning, efficient filtration systems, business methods, localized disinfection systems, construction methods, hydraulic systems and techniques, among others, creating a 2,000+ patent portfolio worldwide.
15. Crystal Lagoons' technology is one of the most innovative and sought-after technologies of recent years in the world. It has received numerous awards and two Guinness Book of World Records. It turned a mirage into reality: creating beautiful clear water bodies for bathing and the practice of water sports, bringing beach life to all corners of the world. These man-made lagoons are not only used for swimming and bathing, but also for practicing water sports, such as kayaking, sailing, rowing, and windsurfing, in designated areas within the lagoon.
16. On information and belief, all large man-made lagoons with clear waters used for direct contact recreational purposes, such as swimming, bathing, and also for the practice of water sports in the U.S., are built, operated, and maintained with Crystal Lagoons' technology.
17. Crystal Lagoons has developed and patented various technologies that have enabled a change in peoples' lifestyle around the world. Today they have a portfolio of over 2,000 patents in 190 countries around the world. Their scientific efforts are also focused on the development of a wide variety of industrial applications that allow

them to help solve pressing global sustainability issues, which include water and energy scarcity, as well as environmental degradation.

18. Mr. Fischmann's revolutionary innovations for building and maintaining large man-made lagoons with excellent water quality at low costs and in a sustainable manner allowed for the first lagoon in San Alfonso del Mar and paved the way for the rest of the world, having today more than 70 projects in different stages of operation and construction, and more than 1,000 projects in discussion, planning or negotiation stages, with lagoons of more than 30 acres of water surface. Crystal Lagoons has projects in the United States, South Africa, Dubai, Indonesia, Thailand, Egypt, Spain, Turkey, Vietnam, Chile, Peru, Bolivia, Paraguay, Argentina, among other countries. Some examples can be seen below from photos of projects in the U.S. using Crystal Lagoons' technology:

**Figure 1: Epperson Project, Florida (7 acres)**



**Figure 2: Epperson Project, Florida (7 acres)**

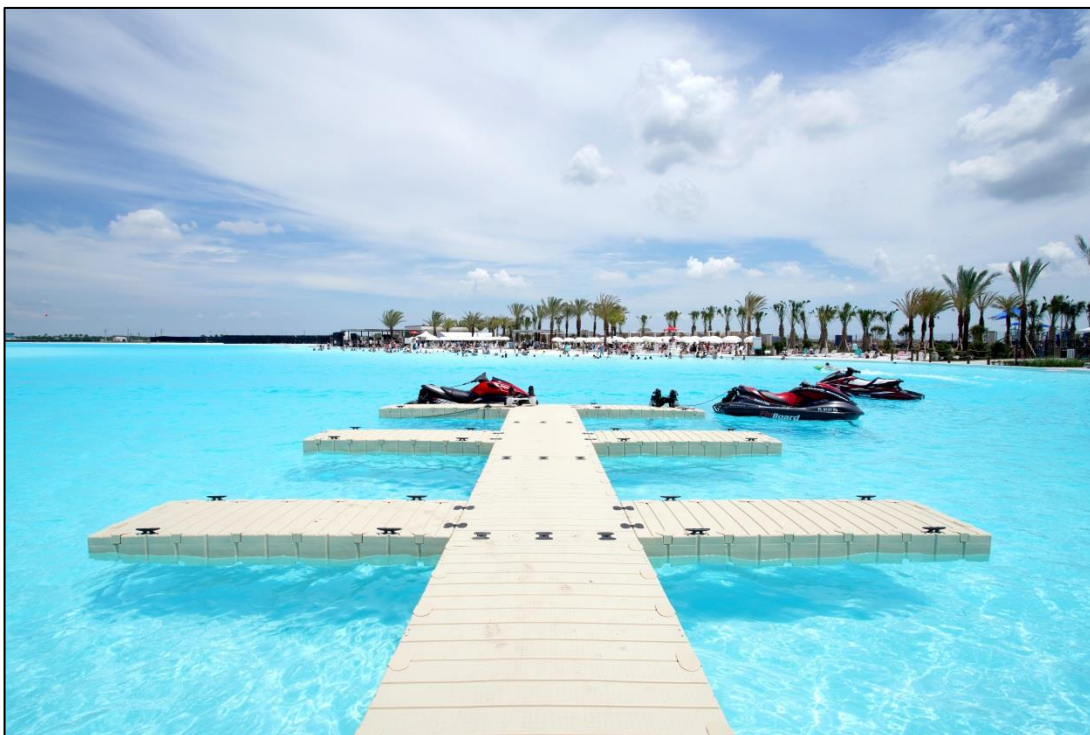




**Figure 3: Photograph of Lago Mar Project, Texas (12 acres)**



**Figure 4: Photograph of Lago Mar Project, Texas (12 acres)**





**Figure 5: Photograph of the Balmoral project, Texas (2 acres)**



**Figure 6: Photograph of the Sole Mia Project, Florida (7 acres)**



**Figure 7: Photograph of Windsong Ranch Project Houston Texas (5 Acres)**



19. The following is a web link to a video of the Epperson Project, located in Florida and the Lago Mar project, located in Texas, which shows the concept and technology from Crystal Lagoons, providing clear differentiation from a conventional swimming pool. Link Epperson Project: <https://vimeo.com/445038143/5896695be3>. Link Lago Mar Project: <https://vimeo.com/445038144/95ef018e89>.
20. This innovation has allowed developers to create real estate projects where residents have access to beach life at the doorsteps of their home, enjoying the man-made crystalline lagoon far from the sea, and recently, through his latest concept of the Public Access Lagoons™, bringing beach life to an urban setting having a ticketed access to the lagoon complex, changing the lifestyle of people in cities. Instead of

having to drive long hours or fly to a tourist beach destination, the nearby population will be able to visit the beach through the Public Access Lagoons™ or PAL™ concept just steps away from their homes, having access to several recreational, commercial, and cultural facilities and experiences, such as restaurants, practicing water sports, concerts, among others, changing the lifestyle of cities around the world.

21. Similar to the beginning of public parks 200 years ago, when the first city parks were created in England bringing a natural forest to cities, this innovation brings a piece of the ocean to cities, incorporating the beach into an urban context.
22. This new Public Access Lagoons™ or PAL™ concept has gained so much drive that from October 2019 to date more than 130 projects around the world have been signed as part of Master Agreements or single agreements with estimated royalties for Crystal Lagoons that exceed US \$8 billion in present value.
23. The importance of Crystal Lagoons' technology is further backed by many facts. First, Crystal Lagoons became the first Chilean "Unicorn" only one and half years after its creation. "Unicorns" are start-up companies valued in over \$1 billion dollars. Secondly, Mr. Fischmann has been honored many times with prestigious international awards, such as Ernst & Young's "Entrepreneur of the Year," "Innovator of the Year," and "Businessman of the Year," being the only executive to receive these three awards. In 2016, he received the Innovation Stevie Award in Italy, also known as the Oscars of the business world and previously awarded to Steve Jobs and Jeff Bezos, and the "Real Innovator Award," by the London Business School, as well as the "Green Apple Award" received in the House of Commons at Westminster Palace,

London, among many others. Mr. Fischmann is also director of the German Institute for applied science Fraunhofer Institute FCR. Thirdly, Mr. Fischmann has also been a keynote speaker at events organized by the Harvard Business School, MIT, Duke, Babson College, London Business School, Berkeley, among many other events and was recently interviewed by Stanford University radio for 40 minutes. Mr. Fischmann has also been given the O-1 visa in the U.S., for Individuals with Extraordinary Ability or Achievements. Recently, he has been awarded with the WIPO Gold Medal Inventor Award, the ceremony being planned for September 2021. All of this as a result of the impact of his technologies on the lifestyle of people around the world.

**IV. PATENT OWNERSHIP**

24. On November 22, 2011, the United States Patent and Trademark Office (“PTO”) duly and legally issued U.S. Patent No. 8,062,514 (“the ’514 Patent”) titled: “Structure to contain a large water body of at least 15,000 m<sup>3</sup>” to Crystal Lagoons Corporation LLC. A true and correct copy of the ’514 patent is attached hereto as Exhibit A. The ’514 Patent claims priority to U.S. Patent Application No. 11/819,017, filed on June 25, 2007. The ’514 Patent also claims priority to Serial No. 3225-2006, filed November 21, 2006 in Chile.
25. Crystal Lagoons (Curacao) B.V. received all right, title and interest in the ’514 patent by way of assignment recorded in the U.S. Patent and Trademark Office on March 8, 2013.
26. Crystal Lagoons (Curacao) B.V. then entered a written exclusive license agreement on November 19, 2019 with Crystal Lagoons U.S. Corp., granting Crystal Lagoons



U.S. Corp. all substantial rights in the '514 Patent. These rights include the rights to make, use, have, import, sell, license, transfer, enforce, sue, collect past and future damages for infringement of the '514 Patent, and otherwise fully exploit and utilize the asserted patent. Crystal Lagoons (Curacao) B.V. entered into this agreement with Crystal Lagoons U.S. Corp. with the intent of transferring all substantial rights under the Patent in Suit. The November 19, 2019 Agreement substituted for and superseded a prior agreement which predated the original complaint in this case.

27. The exclusive license agreement indicates that the title holder of the '514 Patent (then known as Crystal Lagoons (Curacao) BV) grants to Crystal Lagoons U.S. Corp. "an exclusive, perpetual (without a right of revocation), fully paid-up, royalty-free, non-transferable, sub licensable license, solely within the Territory, to use or have used the CLUS IP, to make, have made, import, sell and have sold any products that utilize or incorporate the CLUS IP and otherwise fully exploit the CLUS IP within the Territory." "CLUS IP" includes the '514 Patent in this case as well as other intellectual property. The Territory is the United States of America and its territories. The license agreement also includes a provision allowing for assignment of rights and obligations under the agreement with prior written consent of the other Party.
28. In December 2019, Crystal Lagoons (Curacao) B.V., due to a comprehensive international restructuring process, migrated to the United States and converted into a Delaware corporation called Crystal Lagoons Technologies, Inc., also a named plaintiff in the present action, while retaining nominal title to and ownership in the '514 Patent.



29. Therefore, Crystal Lagoons U.S. Corp., the exclusive licensee of the '514 Patent, owns all substantial rights in Crystal Lagoons intellectual property in the U.S. including the '514 Patent and other patents directed to water systems and related structures, business methods, and water treatment systems. Crystal Lagoons U.S. Corp. presently holds all substantial rights in the '514 Patent including, but not limited to, the right to make, use, have, import, sell, license, enforce, transfer, and otherwise fully exploit and utilize the asserted patent.

30. In addition to the '514 Patent, Crystal Lagoons U.S. Corp., as an exclusive licensee, also owns all substantial rights in other patents for related technology licensed from Crystal Lagoons (Curacao) B.V. (n/k/a Crystal Lagoons Technologies, Inc.), including:

- U.S. Patent No. 9,708,822, titled: "Process to maintain large clean recreational water bodies" ("the '822 Patent) which was duly and legally issued on July 18, 2017 from U.S. Patent. Application No. 11/444,781 filed on July 28, 2014, claims priority to Application No. 11/819,017, filed on June 25, 2007, and also claims priority to Serial No. 3225-2006, filed November 21, 2006 in Chile, a true and correct copy of the '822 patent is attached hereto as Exhibit B; and
- U.S. Patent No. 8,753,520, titled: "Localized disinfection system for large water bodies" ("the '520 Patent) which was duly and legally issued on June 17, 2014 from U.S. Patent. Application No. 13/955,699 filed on July 31, 2013, which claims priority to PCT/EP2012/076170 filed on December 19, 2012, a true and correct copy of the of the '520 patent is attached hereto as Exhibit C.

(Collectively, along with the '514 Patent, the "Asserted Patents.")

31. No parties other than the Plaintiffs own any substantial rights in the Asserted Patents. No other parties have the right to bring suit for infringement of the Asserted Patents.

**V. PACIFIC AQUASCAPE'S RELATIONSHIP WITH CLOWARD H2O**

32. Pacific Aquascape was the general contractor and entity in charge of the construction of the 2-acre man-made lagoon, located at the Hard Rock Hotel & Casino in Hollywood, Florida ("Hard Rock Lagoon"). The design and engineering of this lagoon was done by Cloward H2O LLC, a Utah based company mainly involved in the business of conventional swimming pools and water parks.
33. The Hard Rock Lagoon is currently part of a lawsuit filed October 19, 2019, by Crystal Lagoons against Cloward H2O LLC ("Cloward").
34. Cloward also received Crystal Lagoons' confidential and proprietary information illegally from the owners of a separate South Florida project (located within 12-miles of the Hard Rock Lagoon) that has a lagoon designed, constructed and operating using Crystal Lagoons' technology, with a signed License Agreement. The information consisted of hundreds of pages of documents, including a 98-page, complete set of Crystal Lagoons' design drawings, permitting and pricing information, operational details and manuals, brochures, technical specifications and calculations, chemical MSDS, quotes for equipment and materials, among others. Crystal Lagoons is investigating taking legal action against the owners of the South Florida project.
35. Cloward designed the multiple conventional small-sized swimming pools of the Hard Rock project (constructed with structural concrete, multiple inlets, and conventional

swimming pool technology) which were constructed by a company called Brightview Pools. In contrast, Cloward also designed the large structure with all the features from a lagoon using Crystal Lagoons' technology, where such lagoon was constructed by Pacific Aquascape. An aerial photograph of the accused Hard Rock Lagoon can be seen in Figure 8 below, showing the clear difference between both types of water features:

**Figure 8: Hard Rock Swimming Pools and Lagoon, pools constructed by Brightview and the Lagoon constructed by Pacific Aquascape**



36. Pacific Aquascape was the general contractor for the Hard Rock Lagoon. Pacific Aquascape built the Hard Rock Lagoon to Cloward's design specifications, but also suggested changes and modifications to the lagoon plans and specifications.
37. In a sworn declaration dated April 14, 2020, Pacific Aquascape's President, Cory Severson, stated:

37.1. “My testimony below relates to the swimming lake (“Swimming Lake”) at the Hard Rock Seminole Hotel and Casino in Hollywood, Florida.” (Exhibit D, ¶3.)

37.2. “Pacific Aquascape International constructed the Swimming Lake in accordance with the plans for the Swimming Lake provided by Cloward H2O LLC.” (*Id.*, ¶4.)

## **VI. PACIFIC AQUASCAPE’S RELATIONSHIP WITH CRYSTAL LAGOONS**

38. Pacific Aquascape and Crystal Lagoons are no strangers. More than 20 years ago, when Fernando Fischmann was looking at existing solutions for developing the technology, he met with Mr. Johan Perslow, owner of Pacific Aquascape, and Mr. Fischmann’s representatives travelled to California and Hawaii looking at some of the water bodies Pacific Aquascape had created, which were ornamental lakes for real estate developments with murky and greenish water and not for recreational purposes like swimming, as seen below:

**Figure 9: Pacific Aquascape and Mr. Fischmann's Representatives**



**VII. STRUCTURE PATENT INFRINGEMENT**

**THE '514 PATENT (STRUCTURE PATENT) IS BEING INFRINGED AND WHAT PACIFIC AQUASCAPE BUILT IS NOT A SWIMMING POOL**

39. Pacific Aquascape is infringing and has infringed Crystal Lagoons' '514 Patent at least by constructing the Hard Rock Lagoon in accordance with the infringing specifications provided by Cloward.
40. Claim 1 of the '514 Patent (structure patent) states as follows: "A structure to contain a large water body, including a water body larger than 15,000 m<sup>3</sup>, for recreational use with color, transparency and cleanness characteristics similar to swimming pools or tropical seas, wherein the structure includes a bottom and walls covered with a plastic liner made of a non-porous material able to be thoroughly cleaned; wherein the depth of the structure to the bottom is about 0.5 meters or higher, wherein the structure includes a system of skimmers for the removal of impurities and surface oils, a fresh



water feeding pipe system that allows entrance of fresh water and results in water removal by displacement of surface water through the skimmer system, and a pumping system including a coupling means connected to a moveable suction device for cleaning the plastic liner.” Each of the elements of Claim 1 infringed as shown below:

- 40.1. “A structure to contain a large water body, including a water body larger than 15,000 m<sup>3</sup>...” – This element is being infringed by the current lagoon structure at the Hard Rock Lagoon, which is larger than 15,000m<sup>3</sup>.
- 40.2. “...for recreational use with color, transparency and cleanness characteristics similar to swimming pools or tropical seas...” – This element is being infringed by the current lagoon structure at the Hard Rock Lagoon. The body of water is for recreational use, including swimming.
- 40.3. “...wherein the structure includes a bottom and walls covered with a plastic liner made of a non-porous material able to be thoroughly cleaned...”, – This element is being infringed by the current lagoon structure at the Hard Rock Lagoon. **To provide more clarity and details for this element, see NOTE 1: Walls.**
- 40.4. “...wherein the depth of the structure to the bottom is about 0.5 meters or higher...” – This element is being infringed by the current lagoon structure at the Hard Rock Lagoon. As it is evident from the following picture, the depth of the accused structure is more than 0.5 m:

**Figure 10: Person in the lagoon**



40.5. “...wherein the structure includes a system of skimmers for the removal of impurities and surface oils,...” – This element is being infringed by the current lagoon structure at the Hard Rock Lagoon. **To provide more clarity and details for this element, see NOTE 2: Skimmers.**

40.6. “...a fresh water feeding pipe system that allows entrance of fresh water and results in water removal by displacement of surface water through the skimmer system,...” – This element is being infringed by the current lagoon structure at the Hard Rock Lagoon. The accused structure includes a fresh water feeding pipe that allows entry of fresh water and results in water removal by displacement of surface water through the skimmer as it can be seen in the following photo:

**Figure 11: Fresh water feeding pipes**



40.7. "...and a pumping system including a coupling means connected to a moveable suction device for cleaning the plastic liner." – This element is being infringed by the current lagoon structure at the Hard Rock Lagoon. **To provide more clarity and details for this element, see NOTE 3: Pumping System.**

41. NOTE 1: Walls

41.1. Information and photos show the sloped walls, the bottom, and the vertical walls were covered with a plastic liner.

**Figure 12: Lagoon during construction showing liner in the vertical walls, where all the vertical walls were covered with a plastic liner**



**Figure 13: Lagoon during construction showing liner in vertical walls, where all the vertical walls were covered with a plastic liner**



**Figure 14: Lagoon during construction showing liner in vertical walls, where all the vertical walls were covered with a plastic liner**

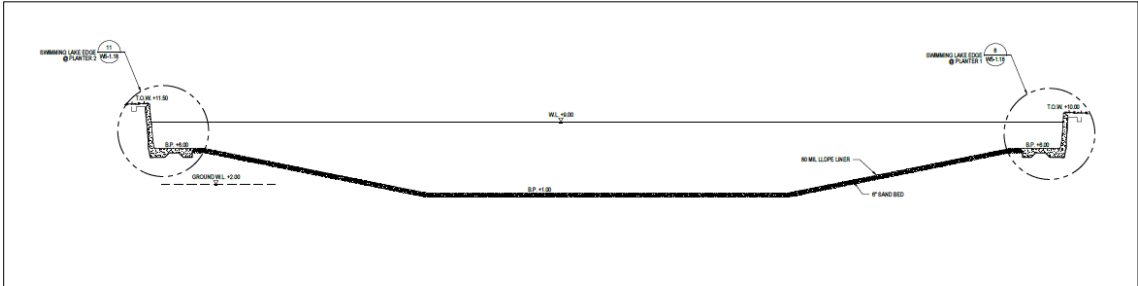


41.2. The definition of “walls” is “a structure that serves to hold back pressure (as of water or sliding earth)” See [merriam-webster.com/dictionary/wall](https://www.merriam-webster.com/dictionary/wall) (*Last Visited August 18, 2021*). None of the specification of the ’514 Patent nor the prosecution history for the ’514 Patent puts forth a definition for the claim term “walls” that would contradict or otherwise modify this plain and ordinary meaning. Based on this definition, the structure at the Hard Rock Lagoon includes vertical walls and sloped walls that serve the purpose of holding back the water pressure. It has been estimated that the sloped walls at the Hard Rock Hollywood lagoon hold back 4 times more pressure than the vertical walls (as seen in the dictionary definition), and therefore these are the most important walls of the lagoon.

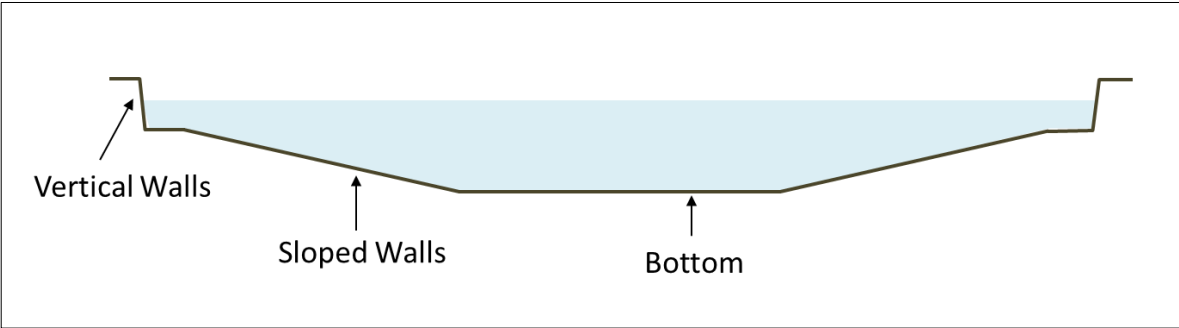


41.3. To provide more clarity, a cross section of the Hard Rock Lagoon can be seen in Figure 15, Figure 16, and Figure 17 below (showing excerpts from Cloward’s plans and schematics based on such plans), which shows that there are three main inner surfaces that contain the water body: the vertical walls, the sloped walls, and the bottom.

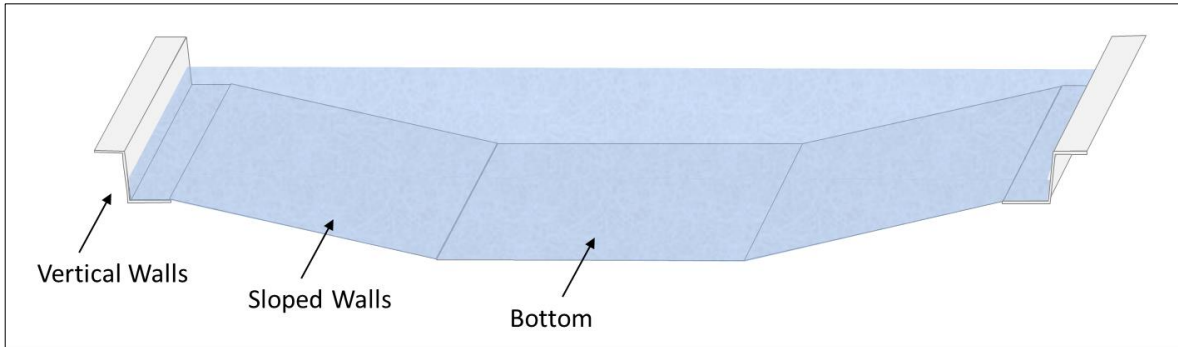
**Figure 15: Excerpt of Cloward’s Plans**



**Figure 16: Schematic of the Lagoon Cross Section**

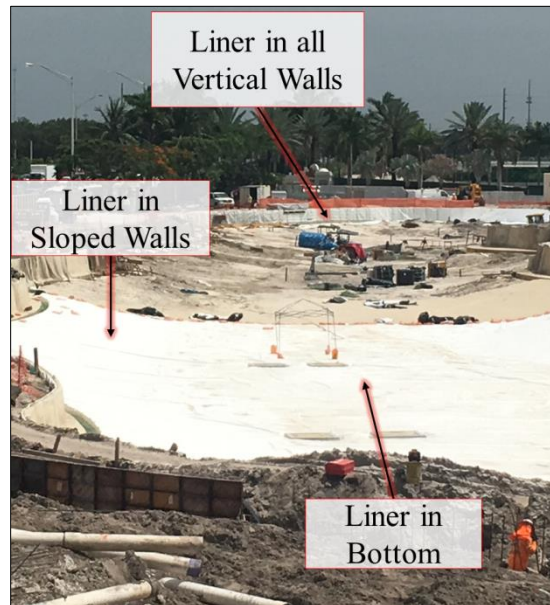


**Figure 17: Angle View of Lagoon**



41.4. The structure at the Hard Rock Lagoon was constructed with a liner that covers the bottom, the sloped walls, and all the vertical walls. This can be seen in Figure 18 below:

**Figure 18: Liner covering vertical walls, sloped walls, and bottom**



41.5. As it can be seen in the previous photo, the bottom, the sloped walls, and all the vertical walls were indeed constructed with a liner. Before the lagoon's opening, part of the walls that have liner were covered with a shotcrete layer,

but the liner is still present in the structure, and more than 80% of the total lagoon has exposed liner such that the liner is able to be thoroughly cleaned, complying with the “including” requirement as claimed in the ’514 patent (structure patent).

41.6. Regardless of the previous argument, it is important to highlight that patent infringement analysis involves a two-step process: first, determine the scope and meaning of the asserted patent claim, and second, compare the claims as construed to the accused structure. Claim 1 recites a structure that “includes a bottom and walls covered with plastic liner made of a non-porous material able to be thoroughly cleaned.” “Includes” requires the following recitations, but is not limited to the recited elements. *Callicrate v. New Age Indus. Corp.*, No. 04-4008-JAR, 2005 WL 1027095, at \*16 (D. Kan. Apr. 27, 2005). Therefore, based on the claim construction and its scope and meaning, this does not mean that 100% of such bottom and walls need to be covered with a plastic liner that can be thoroughly cleaned.

41.7. Notwithstanding, as shown before, the sloped walls, the flat bottom, and all the vertical walls are indeed covered with a plastic liner. Thus, even if a portion of the accused structure also includes walls covered with a shotcrete layer, there is still infringement as a matter of law.

42. Also, according to Claim 1 of the ’514 patent, the non-porous material of the plastic liner needs to be able to be thoroughly cleaned by means of a suction device

connected to a pumping system in order to allow vacuuming the liner covering the sloped walls and flat bottom of the structure, as it is explained below:

- 42.1. The cleaning systems that are used all around the world in the lagoons using Crystal Lagoons' technology are used only for cleaning (vacuuming) the sloped walls and flat bottom, and not for the vertical walls (as these are cleaned through brushing and not a vacuum system).
- 42.2. Similarly, in the lagoon at the Hard Rock Lagoon (designed by Cloward and built by Pacific Aquascape), the vertical walls are not cleaned with a vacuuming system, and only the sloped walls and bottom are cleaned through conventional vacuuming devices controlled remotely or manually operated, as it can be seen in Figure 19 and Figure 20 below:

**Figure 19: Conventional pool suction device, not able to be used in vertical walls**



**Figure 20: Diver performing manual cleaning using a moveable suction device in the sloped walls**





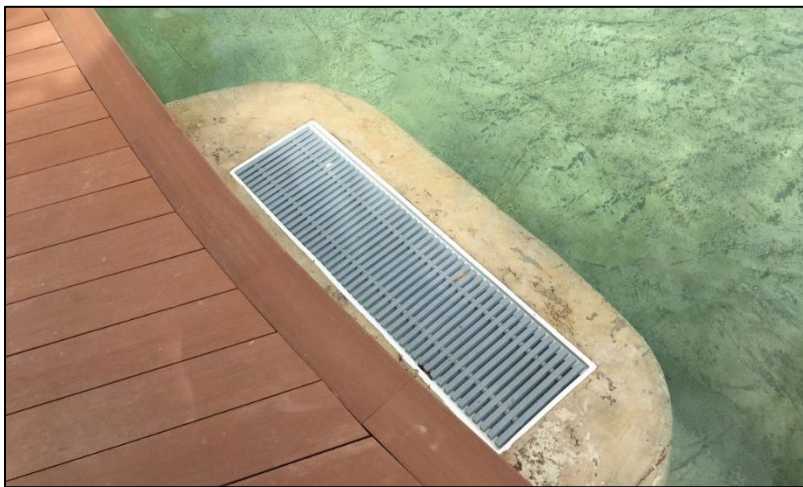
42.3. In summary, in the Hard Rock Lagoon, all vertical walls, the sloped walls and the bottom are covered with a plastic liner.

42.4. Further, a structure like the Hard Rock Lagoon that is built with a liner in the vertical walls, sloped walls and bottom allows to have construction costs that are very low compared to the conventional structural concrete walls and shell required for swimming pool construction, which is part of the novelty and inventive step of the '514 patent (structure patent) from Crystal Lagoons.

43. NOTE 2: Skimmers

43.1. The accused structure includes a system of skimmers for removal of impurities and surface oils as seen in Figure 21 below:

**Figure 21: Skimmers**



43.2. Claim 1 of the '514 patent (structure patent) does not define a specific skimmer type as it is a patent describing the structure to contain water, not related to the specific hydraulic system for the skimmers. The '514 patent mentions that skimmers may be surface slots or dumps, serving the purpose

of removing floating contaminants from the lagoon independently of the type of skimmer used, which is only one element of the structure and not a specific type or configuration, as it can be shown in the following excerpts from the patent:

**Figure 22: '514 Patent: Paragraph 4, Lines 64-65**

60 to contain the water, and separation and flocculation (main-  
tenance) processes of particles that make water cloudy and  
impure are performed, in such a way that flocculated material  
is suctioned by a suction device once flocculation has taken  
place, and oily materials are removed through skimmers (sur-  
65 face slots or dumps) of the structure of the present invention,  
said structure having pipes that feed fresh water to fulfill the  
desired objective.

**Figure 23: '514 Patent: Paragraph 9, Lines 43-44**

The relevance of the structure to solve the technical prob- 40  
lem proposed in the process of the present invention is  
detailed as follows:

The structure must have skimmers to remove surface oils  
and particles, since otherwise they accumulate and deter  
water quality, even after performing all the chemical treat- 45  
ment steps, since these do not remove floating greases or  
solids. In this way, the final objective of obtaining "color,

**Figure 24: '514 Patent: Paragraph 6, Lines 42-43**

In FIG. 10, the following elements of the structure can be  
40 observed: recycle pipe (39) onto which injectors are arranged;  
injectors (40) arranged along all the perimeter of the water  
body; water body (41) contained by the structure; skimmers  
(42) for removal of floating contaminants such as water with  
oils; water inlet line and chamber (43) where water is  
45 extracted to feed the lagoon; zone of restricted natural circu-  
lation (44); fresh water feeding point (45) to the lagoon.

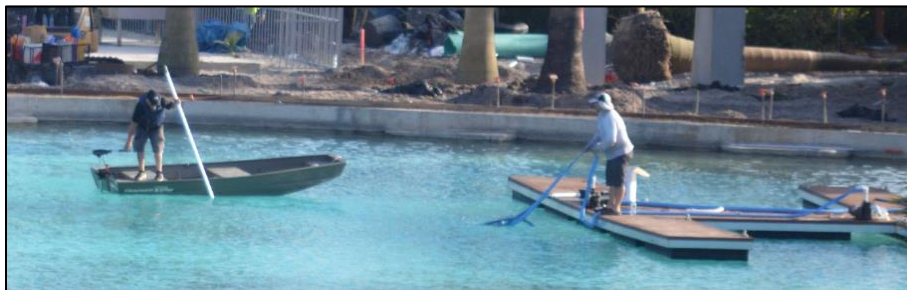
44. NOTE 3: Pumping System

44.1. The accused structure includes a pumping system connected to a moveable suction (vacuum) device for cleaning the plastic liner as seen in the following figures:

**Figure 25: Pumping system connected to a moveable suction device cleaning the sloped walls**



**Figure 26: The vacuum system operated by a boat**



**Figure 27: Diver operating the suction device, cleaning the sloped walls**



**Figure 28: Moveable suction (vacuum) device connected to a pumping system**



**Figure 29: Example of moveable suction (vacuum) device used at Hard Rock Lagoon**





44.2. Claim 1 of the '514 patent (structure patent) does not define a specific pumping system for providing suction power to the bottom cleaning system, as it is a patent describing the structure to contain water, not related to the specific configuration of the pumping system. The pumping system is connected to the suction device in order to provide suction power and achieve vacuuming of the bottom, however, it does not describe a specific type of pumping system, as it can be seen from the following patent excerpts:

**Figure 30: '514 Patent: Paragraph 11, Lines 19-20**

rations or slots to fasten the brushes in a continuous line, 15  
 supporting plates for the axles of the wheels and the rollers,  
 and a suction PVC line with openings (see description of  
 figures for more details).

The suction device operates by suctioning dirt through  
 connecting hoses by means of a pumping system, said device 20  
 being pulled by a system that includes a propelling device to  
 move the suction device, such as a boat, for instance, a drain-  
 ing chamber, plastic buoys for aiding a hose to float, a plat-



**Figure 31: '514 Patent: Paragraph 11, Lines 37-39**

The suction device is mainly formed by a structuring frame, a covering carcass with coupling means to be coupled to the pumping system, rolling means for continuous displacement over the surface to be cleaned and cleaning means consisting of a suction line and a brush line to remove the material to be cleaned by means of suction from the pumping system through the suction device.

The covering carcass comprises a laminar resin body that covers the structuring frame and the rolling and suction

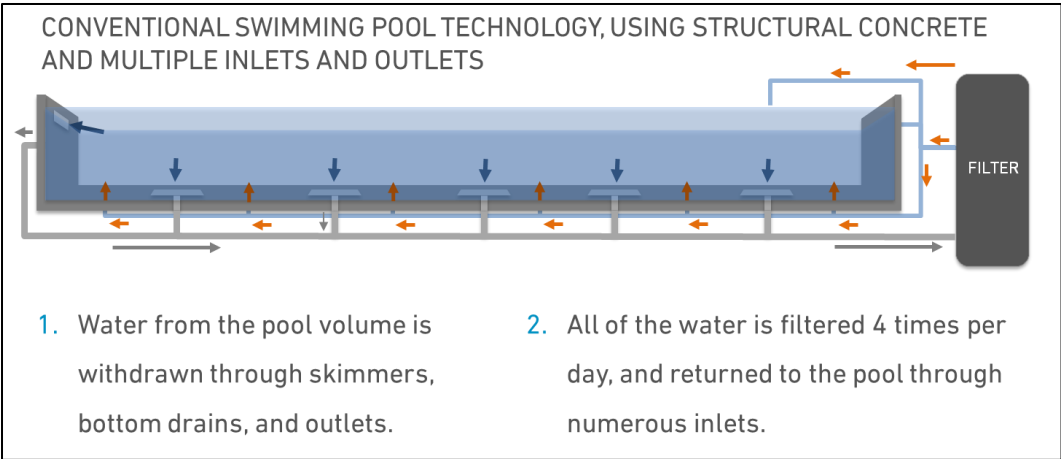
### **VIII. WATER TREATMENT PATENT INFRINGEMENT**

45. To provide turquoise, high clarity water and eliminate suspended particles for recreational water bodies, two different technologies can be used:
  - 45.1. Traditional swimming pool filtration technologies that are usually applied in relatively small water bodies built with a structural concrete shell, which have a centralized filtration system, a large number of inlets/outlets, and a piping network located in the structure of the water body in order to allow the filtration of the entire volume of water homogeneously and efficiently many times per day depending on local regulations (as a reference, in Florida where the Hard Rock Lagoon is located, it is required to filter the complete water volume 4 times per day).
  - 45.2. Crystal Lagoons' technology that uses a plastic liner for constructing the lagoon structure, and that uses flocculants to flocculate suspended particles that fall to the bottom and are then removed by a suction device, which is applied in larger water bodies, and does not require to have a large number of

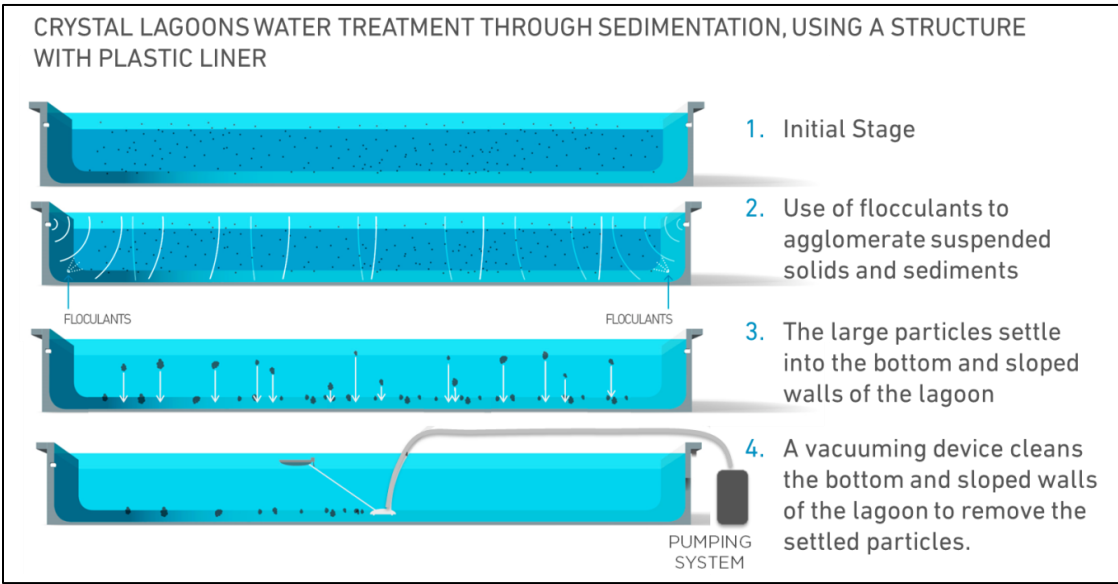
inlets and large filtration systems from conventional swimming pool technologies to achieve removal of particles from the water body.

46. To provide more clarity to the above explanation, see the figures below:

**Figure 32: Swimming pool technology schematic**



**Figure 33: Crystal Lagoons' technology schematic**



47. Crystal Lagoons has developed technology for maintaining large man-made lagoons with excellent water quality at low cost. Several patents have been granted confirming

that these water treatment processes, bottom cleaning systems, and localized disinfection systems, among others, represent a significant advance over conventional swimming pool technology.

48. Crystal Lagoons has a reasonable belief that Pacific Aquascape infringes and has infringed Crystal Lagoons' patents related to water treatment technologies, specifically the '822 patent and the '520 patent (collectively the "Water Treatment Patents").

**The '822 patent**

49. Pacific Aquascape is infringing and has infringed Crystal Lagoons' '822 Patent at least by constructing and using the Hard Rock Lagoon in accordance with the infringing specifications provided by Cloward.
50. Claim 1 of the '822 patent states as follows: "A process to maintain a water body, wherein the water body has a volume of at least 15,000 m<sup>3</sup> and is housed in a structure having a bottom and walls and provided with skimmers, the process comprising: maintaining pH of water in the water body at pH 5 to 9; adding an oxidation-reduction potential (ORP) of at least 600 mV for at least 4 hours within a 48 hour cycle; adding a flocculating agent to the water at a concentration of 0.02 to 1.0 ppm at a frequency of at least once every 6 days to precipitate impurities in the water and to accumulate precipitated impurities at the bottom of the structure; removing precipitated impurities at the bottom of the structure; removing precipitated impurities from the bottom with a movable suction device; feeding the water body with inlet water to generate displacement of surface water containing impurities and surface oils and

removing displaced surface water using the skimmers, the inlet water having iron and manganese levels lower than 1.5ppm and turbidity lower than 5 NTU, wherein the process is performed without traditional filtration, wherein traditional filtration comprises filtering the volume of water once or more in 24 hours.” Each of the elements of the claim is infringed as shown below:

50.1. “A process to maintain a water body, wherein the water body has a volume of at least 15,000 m<sup>3</sup> and is housed in a structure having a bottom and walls and provided with skimmers . . . .” – To the extent this preamble is a limitation, this element is infringed at the Hard Rock Lagoon. *See* ¶¶ 40.1, 40.3, 40.5.

50.2. “. . . maintaining pH of water in the water body at pH 5 to 9 . . . .” – This element is being infringed at the Hard Rock Lagoon.

50.3. “. . . adding an oxidizing agent to the water to maintain an oxidation-reduction potential (ORP) of at least 600 mV for at least 4 hours within a 48 hour cycle . . . .” – This element is infringed at the Hard Rock Lagoon. Further, inspection of the lagoon uncovered evidence of calcium hypochlorite (chlorine-based disinfectant) on site and a noticeable odor of chlorine from the lagoon water.

**Figure 34: Photograph of pallets containing calcium hypochlorite at the lagoon taken in September 2020.**



- 50.4. “. . . adding a flocculating agent to the water at a concentration of 0.02 to 1.0 ppm at a frequency of at least once every 6 days to precipitate impurities in the water and to accumulate precipitated impurities at the bottom of the structure . . .” – This element is being infringed at the Hard Rock Lagoon.
- 50.5. “. . . removing precipitated impurities from the bottom with a movable suction device . . .” – This element is infringed at the Hard Rock Lagoon. *See* Note 3 at ¶ 44, Figures 25-29, *supra*.
- 50.6. “. . . feeding the water body with inlet water to generate displacement of surface water containing impurities and surface oils and removing displaced surface water using the skimmers, the inlet water having iron and manganese levels lower than 1.5ppm and turbidity lower than 5 NTU. . .” – This element is infringed at the Hard Rock Lagoon. *See* ¶¶ 40.5-40.7, and Figures 11, 21, *supra*.
- 50.7. “. . . wherein the process is performed without traditional filtration, wherein traditional filtration comprises filtering the volume of water once or more in 24 hours.” – This element is infringed at the Hard Rock Lagoon.
- 50.8. If the system at the Hard Rock Lagoon was effectively designed and built as a conventional swimming pool with the proper amount of inlets and drains based on swimming pool regulations, then short circuits would be avoided and homogeneous filtration of the complete water body would be provided, and the lagoon would not be subject to the large amount of contamination that it has had, and intensive bottom cleaning would not be required.



50.9. When the lagoon was opened, the filtration systems were not operational and a company and its crew were hired to maintain the lagoon (the same company which currently operates other projects using Crystal Lagoons' technology), where from information, testing, and belief, flocculants were used to aid in settling particles into the bottom of the lagoon and performing thorough manual bottom cleaning (assimilating Crystal Lagoons' water treatment technology), which resulted in the lagoon having good aesthetics and cleanliness characteristics, as it can be seen in the following picture:

**Figure 35: Hard Rock Lagoon after opening**



50.10. Once the filtration system and associated circulation systems started operating, the lagoon water quality started to deteriorate, become greenish,

and with high turbidity, since the systems and water treatment technology were insufficient and cannot operate efficiently, as it can be seen from the photo below. This is typically a result of an inefficient filtration system that does not have the proper amount of inlets and outlets to produce homogeneity of the water volume and cannot perform homogeneous filtration. This is another reason why the structure and systems uses Crystal Lagoons' technology.



50.11. Swimming pool technology and Crystal Lagoons' technology are different.

This is even more evident given the fact that in the U.S., Crystal Lagoons has worked for over 7 years with the different health and environmental regulatory agencies across several states to create new regulations for the construction and operation of these lagoons, which are different than conventional swimming pool regulations. This process took years, as this concept and technology were an innovation and did not exist before, and therefore no

regulations existed for these large man-made lagoons with high transparency and excellent water quality for recreational purposes such as swimming and bathing but also for the practice of water sports at very low building and operation costs.

50.12. For example, in Florida, the lagoons using Crystal Lagoons' technology are classified as Public Bathing Places, a completely separate definition than swimming pools, with different construction and operation requirements. Also, Florida's former governor, Rick Scott, traveled to Chile and visited the lagoons with Crystal Lagoons' technology. In Texas, since there was no category where these types of lagoons would fit into, a new category was created by the Legislature by passing legislation, a process spearheaded by Crystal Lagoons. The result was that in Texas, the lagoons using Crystal Lagoons' technology are classified as "Artificial Swimming Lagoons," which allow for different construction and operation requirements than swimming pools to still provide a recreational water body. A similar process was followed in North Carolina, where a new category of "Artificial Swimming Lagoons" was created through legislation since there were no regulations suitable for these large man-made lagoons, also requiring different construction and operation requirements than swimming pools, among others.

50.13. The Hard Rock Lagoon, which was built by Pacific Aquascape to Cloward's specifications, uses a technology that on information and belief does not comply with swimming pool requirements for construction and operation



(based on Florida's swimming pool regulations found in Rule 64E-9) in the construction and implementation of the Hard Rock Lagoon. This could only be done here given the Tribe's sovereign immunity at the site which allows them to not be subject to enforcement of such rules by the enforcement agency.

50.14. Further, on-site inspections of the Hard Rock Lagoon reveal the use of several supplemental filtration systems installed in the perimeter of the lagoon that take water locally, filter it, and return it to the same location, as the installed filtration system operated only a few hours per day prior to becoming clogged. *See* Figures 36-38.

**Figure 36: Location of supplemental filters**



**Figure 37: Aerial view of supplemental filters currently in use at the Hard Rock Lagoon**



**Figure 38: Close-up of supplemental filters currently in use at the Hard Rock Hollywood Lagoon**







Use of portable exterior filters with localized effect: Not a swimming pool

**The '520 Patent**

51. Pacific Aquascape is infringing and has infringed Crystal Lagoons' '520 Patent at least by constructing and using the Hard Rock Lagoon in accordance with the infringing specifications provided by Cloward.
52. Claim 1 of the '520 Patent states as follows: "A method for controlling microbiological properties of a portion of water within a water body, comprising: a. identifying a portion of water intended for recreational purposes within the water

body, the portion of water comprising one or more zones wherein: at least one zone is designated a sanitary compliance zone, at least one zone is designated a delimiting zone, and one zone is designated a most unfavorable zone, the most unfavorable zone corresponding to the zone that exhibits the lowest ORP value within the identified portion of water; b. maintaining at least a minimum ORP level in the portion of water for at least a minimum period of time, wherein the minimum ORP level and the minimum period of time cannot be lower than the values calculated by: i. determining salinity of the water at the most unfavorable zone; and ii. determining the minimum ORP value based on the salinity of the water where: for salinities in the water between 0% and up to 1.5% the minimum ORP level is 550 mV; for salinities in the water higher than 1.5%, and up to 2.5%, the minimum ORP level is calculated by the following equation:  $[\text{Minimum ORP, mV}] = 625 - 50 * [\text{Salinity of the Water, \% (Weight Percent)}]$ ; and for salinities in the water higher than 2.5%, the minimum ORP level is 500 mV; iii. determining the temperature of the water in the most unfavorable zone; and iv. determining the minimum period of time based on the water temperature, wherein: for water temperatures from 5° C. to 35° C., the minimum period of time is calculated by the following equation:  $[\text{Minimum period of time, min}] = 80 - 2 * [\text{Temperature of the water, } ^\circ \text{C.}]$ ; and for water temperatures between 35° C. and up to 45° C., the minimum period of time is calculated by the following equation:  $[\text{Minimum period of time, min}] = 5 * [\text{Temperature of the water, } ^\circ \text{C.}] - 165$ ; c. dispensing an effective amount of chemical agent into the identified portion of water in order to maintain at least the minimum ORP level during at least

the minimum period of time at the most unfavorable zone, and d. repeating step c as needed to prevent the ORP in the most unfavorable zone from decreasing by more than 20% of the minimum ORP value. Each of the elements of the claim is infringed as shown below:

52.1. “a. identifying a portion of water intended for recreational purposes within the water body, the portion of water comprising one or more zones wherein: at least one zone is designated a sanitary compliance zone, at least one zone is designated a delimiting zone, and one zone is designated a most unfavorable zone, the most unfavorable zone corresponding to the zone that exhibits the lowest ORP value within the identified portion of water. . .” – This element is infringed at the Hard Rock Hollywood Lagoon.

52.2. “b. maintaining at least a minimum ORP level in the portion of water for at least a minimum period of time, wherein the minimum ORP level and the minimum period of time cannot be lower than the values calculated by:

- i. determining salinity of the water at the most unfavorable zone; and
- ii. determining the minimum ORP value based on the salinity of the water where: for salinities in the water between 0% and up to 1.5% the minimum ORP level is 550 mV; for salinities in the water higher than 1.5%, and up to 2.5%, the minimum ORP level is calculated by the following equation:  $[\text{Minimum ORP,mV}] = 625 - 50 * [\text{Salinity of the Water, \% (Weight Percent)}]$ ; and for salinities in the water higher than 2.5%, the minimum ORP level is 500 mV;

iii. determining the temperature of the water in the most unfavorable zone; and iv. determining the minimum period of time based on the water temperature, wherein: for water temperatures from 5° C. to 35° C., the minimum period of time is calculated by the following equation: [Minimum period of time,min]=80-2\*[Temperature of the water,° C.]; and for water temperatures between 35° C. and up to 45° C., the minimum period of time is calculated by the following equation: [Minimum period of time,min]=5\*[Temperature of the water,° C.]-165. . .”

– This element is infringed at the Hard Rock Lagoon. Further, inspection of the lagoon uncovered evidence of calcium hypochlorite (chlorine-based disinfectant) on site and a noticeable odor of chlorine from the lagoon water.

52.3. “. . . c. dispensing an effective amount of chemical agent into the identified portion of water in order to maintain at least the minimum ORP level during at least the minimum period of time at the most unfavorable zone. . .” – This element is infringed at the Hard Rock Lagoon. Further, inspection of the lagoon uncovered evidence of calcium hypochlorite (chlorine-based disinfectant) on site and a noticeable odor of chlorine from the lagoon water.

52.4. “. . . d. repeating step c as needed to prevent the ORP in the most unfavorable zone from decreasing by more than 20% of the minimum ORP value.” – This element is infringed at the Hard Rock Lagoon. Further, inspection of the lagoon uncovered evidence of calcium hypochlorite (chlorine-based disinfectant) on site and a noticeable odor of chlorine from the lagoon water.

**IX. DIRECT AND INDUCED INFRINGEMENT OF THE '514 PATENT**  
**(STRUCTURE PATENT)**

**PACIFIC AQUASCAPE CONSTRUCTED THE INFRINGING HARD ROCK  
LAGOON**

53. Pacific Aquascape has directly infringed and induced infringement, and continues to infringe and induce infringement, literally and/or under the doctrine of equivalents, of at least independent claim 1 of the '514 patent by making and using the lagoon constructed for Hard Rock Seminole, and inducing others to at least make and use the lagoon.
54. Cloward H2O was the engineer of record for the infringing Hard Rock Lagoon, which used Crystal Lagoons' concepts and proprietary technology. Pacific Aquascape built the Hard Rock Lagoon, which infringes the '514 patent. (*See* Ex. D, Severson Decl., ¶4 (“Pacific Aquascape International constructed the Swimming Lake in accordance with the plans for the Swimming Lake provided by Cloward H2O LLC.”).)
55. Thus, Pacific Aquascape built at the Hard Rock Hollywood site a structure to contain a large lagoon that, as required by the Crystal Lagoons' structure patent (the '514 patent), has color, transparency and cleanness characteristics similar to swimming pools or tropical seas. The Hard Rock Lagoon, built by Pacific Aquascape, contains each element of at least Claim 1 of the '514 patent, and therefore directly infringed that patent. *See* Paragraphs 39-48 above.
56. Cloward H2O acted as the engineer of record for the infringing lagoon, provided plans and engineering schematics used to build the accused lagoon structure, and



worked with various contractors to carry out the lagoon's construction. The primary contractor for the lagoon structure was Pacific Aquascape, which built the Hard Rock Lagoon.

57. Pacific Aquascape, as the general contractor, built all of the components of the Hard Rock Lagoon structure. Pacific Aquascape also controlled and directed the making of the various components of the infringing structure and was responsible for ensuring that all the components of the structure combined into the infringing lagoon structure. Pacific Aquascape is liable for direct infringement as the maker of the infringing lagoon due to its central role as the general contractor for the project.
58. Pacific Aquascape also directly infringed by using the infringing structure. As the general contractor, Pacific Aquascape was responsible to ensure all contractors performed their roles properly and all components contributing to the overall structure worked properly and integrated properly with the other components into an operational lagoon structure. Such testing and monitoring of the performance of the infringing lagoon structure constitutes infringing use.
59. On information and belief, at least through June 2020, Pacific Aquascape maintained a relationship with Hard Rock Seminole related to maintenance and repair purposes. As such, Pacific Aquascape also used the infringing lagoon.
60. On information and belief, Pacific Aquascape drafted a Building and Operation Manual that instructed end users how to use and operate the lagoon.
61. In view of all the facts as alleged above, Pacific Aquascape's actions induce infringement by the project owner, any person maintaining or operating the lagoon,

and even customers staying or using the lagoon are induced infringers. Such infringement through use, and inducing use by others, is a direct result of Pacific Aquascape's role in building the lagoon.

62. Upon information and belief, Pacific Aquascape knew of the '514 Patent at the time it undertook its role as general contractor for the Hard Rock Lagoon. Pacific Aquascape's acts of inducing infringement of its infringement of the '514 patent were taken with knowledge that those actions would cause infringement of the '514 patent.

**X. DIRECT AND INDUCED INFRINGEMENT OF THE '822 PATENT**

63. Pacific Aquascape built and operated the Hard Rock Lagoon, including its water treatment system, based on Cloward's plans and technical specifications. (*See* Ex. D, Severson Decl., ¶4 (“Pacific Aquascape International constructed the Swimming Lake in accordance with the plans for the Swimming Lake provided by Cloward H2O LLC.”).) Pacific Aquascape has infringed and induced infringement, and continues to infringe and induce infringement, literally and/or under the doctrine of equivalents, of at least independent claim 1 of the '822 patent by making and using the lagoon constructed for Hard Rock Seminole, and inducing others to at least make and use the lagoon.
64. Pacific Aquascape also directly infringed by performing or causing the performance of the method steps of the '822 patent. As general contractor, Pacific Aquascape's responsibility was to ensure all components contributing to the overall structure and water treatment worked properly and integrated properly with the other components

into an operational lagoon structure. Such testing and monitoring of the performance of the infringing lagoon's water treatment system constitutes infringing use.

65. On information and belief, at least through June 2020, Pacific Aquascape maintained a relationship with Hard Rock Seminole related to maintenance and repair purposes. As such, Pacific Aquascape has also performed the infringing water treatment method at the Hard Rock Lagoon.
66. In view of all the facts alleged above, Pacific Aquascape's actions induce infringement by the project owner, any person maintaining or operating the Hard Rock Lagoon. Such infringement through use, and inducing use by others, is a direct result of Pacific Aquascape's role in building the lagoon.
67. Upon information and belief, Pacific Aquascape knew of the '822 patent at the time it undertook its role as general contractor for the Hard Rock Lagoon. Pacific Aquascape's acts of inducing infringement of the '822 patent were taken with knowledge that those actions would cause infringement of the '822 patent.
68. Pacific Aquascape knew and intended that the Hard Rock Seminole operate the Hard Rock Lagoon water treatment system in a manner that infringes the '822 patent. Pacific Aquascape is liable for induced infringement of the '822 patent.

#### **XI. DIRECT AND INDUCED INFRINGEMENT OF THE '520 PATENT**

69. Pacific Aquascape built and operated the Hard Rock Lagoon, including its water treatment system, based on Cloward's plans and technical specifications. (*See Ex. D, Severson Decl.*, ¶4 ("Pacific Aquascape International constructed the Swimming Lake in accordance with the plans for the Swimming Lake provided by Cloward H2O

LLC.”.) Pacific Aquascape has infringed and induced infringement, and continues to infringe and induce infringement, literally and/or under the doctrine of equivalents, of at least independent claim 1 of the ’520 patent by making and using the lagoon constructed for Hard Rock Seminole, and inducing others to at least make and use the lagoon.

70. Pacific Aquascape also directly infringed by performing or causing the performance of the method steps of the ’520 patent. As general contractor, Pacific Aquascape’s responsibility was to ensure that all components contributing to the overall structure and water treatment worked properly and integrated properly with the other components into an operational lagoon structure. Such testing and monitoring of the performance of the infringing lagoon’s water treatment system constitutes infringing use.
71. On information and belief, at least of June 2020, Pacific Aquascape maintained a relationship with Hard Rock Seminole related to maintenance and repair purposes. As such, Pacific Aquascape also performed the infringing water treatment method at the Hard Rock Lagoon.
72. In view of all the facts alleged above, Pacific Aquascape’s actions induce infringement by the project owner, any person maintaining or operating the Hard Rock Lagoon. Such infringement through use, and inducing use by others, is a direct result of Pacific Aquascape’s role in building the lagoon.
73. Upon information and belief, Pacific Aquascape knew of the ’520 Patent at the time it undertook its role as general contractor for the Hard Rock Lagoon. Pacific

Aquascape's acts of inducing infringement of the '520 patent were taken with knowledge that those actions would cause infringement of the '520 patent.

74. Pacific Aquascape knew and intended that the Hard Rock Seminole operate the Hard Rock Lagoon water treatment system in a manner that infringes the '520 patent. Pacific Aquascape is liable for induced infringement of the '520 patent.

**XII. DAMAGES AND HARM TO PLAINTIFFS FROM THE DIRECT AND INDUCED INFRINGEMENT**

75. Crystal Lagoons is concerned that its image will be damaged by Pacific Aquascape's infringing acts as, on information and belief, aspects of the infringing lagoon involve undesirable environmental consequences that are avoided when Crystal Lagoons controls the design and implementation of the technology. This harm risks irreparably damaging the image of the Crystal Lagoons' technology and of Crystal Lagoons as a company.
76. Crystal Lagoons has complied with the marking requirements of 35 U.S.C. § 287, at least through notifying Pacific Aquascape before this complaint was filed that it was infringing the Asserted Patents through its actions at the Hard Rock Lagoon. Upon information and belief, Pacific Aquascape also had actual knowledge of at least the Asserted Patents prior to receiving notice of this complaint.
77. Upon information and belief, Pacific Aquascape is and has been on notice of its infringement of the Asserted Patents before Crystal Lagoons filed and provided notice of this Complaint. Thus, Pacific Aquascape's infringement of the Asserted Patents



through its efforts to make, use, and/or sell the Hard Rock Lagoon, constitutes willful infringement.

78. Crystal Lagoons has been damaged by Pacific Aquascape's infringement of the Asserted Patents and the tarnishing of the reputation of lagoon-sized recreational water structures. Crystal Lagoons will also continue to be damaged by Pacific Aquascape's actions in the future unless Pacific Aquascape is permanently enjoined from infringing, directly and/or indirectly, the Asserted Patents.
79. At this time, Plaintiffs have not yet ascertained or calculated the amount of damages or costs they have incurred in connection with Defendant's infringement or this litigation, however, it is estimated that Plaintiffs' damages (including enhancements) are likely to be at least between Forty-five Million Dollars (\$45,000,000.00) and Fifty-four Million Dollars (\$54,000,000.00). The lost profits for which Pacific Aquascape is liable are only a fraction of the damages Crystal Lagoons has and is likely to suffer from the infringement. To date, Crystal Lagoons has been the exclusive provider of its patented and revolutionary large scale tropical-quality water structures in the U.S., and is known worldwide as the only provider of these prestigious and valuable facilities. Crystal Lagoons' valuation and ability to secure financing is greatly enhanced by this exclusivity. The valuation of Crystal Lagoons' intellectual property is estimated to be in excess of \$3.3 billion dollars.
80. Pacific Aquascape's infringement has damaged the exclusivity Crystal Lagoons has earned by virtue of its R&D efforts and intellectual property. The lost exclusivity is

likely to significantly reduce the valuation of Crystal Lagoons and could impede its ability to secure financing for further growth.

81. Pacific Aquascape's infringement also creates the risk of damaging the reputation of high-quality lagoon-sized water facilities that Crystal Lagoons has carefully developed over many years.
82. Monetary damages are significant, but will be inadequate to fully compensate Crystal Lagoons for these various forms of damages. A permanent injunction is also necessary to redress the full extent of the harm caused by the infringement as described herein.
83. Pacific Aquascape was well aware of Crystal Lagoons' ownership of the proprietary technology used in the accused structure and had knowledge of the Asserted Patents. Upon information and belief, Pacific Aquascape knew it was copying Crystal Lagoons' unique technology to build a structure significantly different from any structure Pacific Aquascape had built before, to Cloward's design specifications. The facts as set forth above, including but not limited to Pacific Aquascape's willful infringement, make this an exceptional case justifying a significant enhancement of any monetary damages award and providing grounds for an award of attorney's fees as well.

### **XIII. REQUEST FOR RELIEF**

Crystal Lagoons requests the following relief:

- A. A judgment that Pacific Aquascape infringed and induced infringement of United States Patent No. 8,062,514, United States Patent No. 9,708,822, and United States Patent No. 8,753,520 and that such infringement was willful;
- B. An injunction enjoining and restraining Pacific Aquascape, its officers, directors, agents, servants, employees, attorneys, and all others acting under or through it from directly or indirectly infringing United States Patent No. 8,062,514, United States Patent No. 9,708,822, and United States Patent No. 8,753,520;
- C. A judgment and order requiring Pacific Aquascape to pay all damages arising out of Pacific Aquascape's infringement of United States Patent No. 8,062,514, United States Patent No. 9,708,822, and United States Patent No. 8,753,520, including treble damages for willful infringement as provided by 35 U.S.C. § 284, with interest;
- D. A judgment and order directing Pacific Aquascape to pay the costs and expenses of this action and attorneys' fees as provided by 35 U.S.C. § 285 and under other applicable law, with interest; and
- E. Such other and further relief as this Court may deem just and equitable.

**XIV. DEMAND FOR JURY TRIAL**

Crystal Lagoons hereby demands that all issues be determined by jury.

Respectfully submitted,

Date: August 25, 2021

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