

IN THE UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

GEOMATRIX SYSTEMS, LLC,

Plaintiff,

v.

ELJEN CORPORATION,

Defendant.

Civil Action No. 3:20-cv-01900

Hon. Janet Bond Arterton
Hon. Sarah A. L. Merriam

JURY TRIAL DEMANDED

**FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT
AND DEMAND FOR JURY TRIAL**

Plaintiff Geomatrix Systems, LLC (“Geomatrix”) files this First Amended Complaint against Defendant Eljen Corporation (“Eljen”) and alleges as follows:

Nature and Basis of Action

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. §§ 1, *et seq.* Geomatrix seeks a determination that Eljen has infringed U.S. Patent Nos. 9,174,863; 9,650,271; 10,065,875; and 10,392,278 and has therefore competed unfairly in the marketplace in connection with the manufacture and sales of wastewater treatment systems, adversely impacting Geomatrix. In addition, Geomatrix seeks a determination that Geomatrix be awarded the remedies as prayed herein.

The Parties

2. Geomatrix is a limited liability company organized and existing under the laws of the State of Connecticut, with its principal place of business at 114 Mill Rock Road East, Old Saybrook, CT, 06475.

3. On information and belief, Defendant Eljen is a corporation organized and existing under the laws of the State of Connecticut with a principal place of business at 90 Meadow Road, Windsor, CT 06095.

Jurisdiction and Venue

4. This Court has subject matter jurisdiction over the subject matter of this Complaint pursuant to 28 U.S.C. §§ 1331, 1338 and 1367.

5. This Court has personal jurisdiction over Eljen because it is a citizen of and resides in this district. In addition, this Court also has personal jurisdiction over Eljen because it has a regular and established place of business in and has done and is doing substantial business in this Judicial District, both generally and, on information and belief, with respect to the allegations in this Complaint, including Eljen's one or more acts of infringement in this Judicial District.

6. Venue is proper in this Judicial District under 28 U.S.C. §§ 1391(b) and (c) and § 1400(b) at least because Eljen resides in this District.

7. In addition, venue is proper in this District because Eljen has committed acts of infringement and has a regular and established place of business within this District.

The Asserted Patents

8. On November 3, 2015, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,174,863 (the “863 Patent”) to David A. Potts, for an invention entitled “Leach Field System.” A true and correct copy of the ‘863 Patent is attached hereto as **Exhibit A**.

9. Geomatrix is the owner, by valid assignment, of all right, title, and interest in and to the ‘863 Patent, including the right to seek remedies and relief for past infringement thereof. A true and correct copy of the assignment of the ‘863 Patent is attached hereto as **Exhibit B1**.

10. On December 15, 2016, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,650,271 (the “271 Patent”) to David A. Potts, for an invention entitled “Wastewater Leaching System.” A true and correct copy of the ‘271 Patent is attached hereto as **Exhibit C**.

11. Geomatrix is the owner, by valid assignment, of all right, title, and interest in and to the ‘271 Patent, including the right to seek remedies and relief for past infringement thereof. A true and correct copy of the assignment of the ‘271 Patent is attached hereto as **Exhibit B2**.

12. On September 4, 2018, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 10,065,875 (the “875 Patent”) to David A. Potts, for an invention entitled “Wastewater Leaching System.” A true and correct copy of the ‘875 Patent is attached hereto as **Exhibit D**.

13. Geomatrix is the owner, by valid assignment, of all right, title, and interest in and to the ‘875 Patent, including the right to seek remedies and relief for past

infringement thereof. A true and correct copy of the assignment of the '875 Patent is attached hereto as **Exhibit B3**.

14. On August 27, 2019, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 10,392,278 (the "278 Patent") to David A. Potts, for an invention entitled "Leach Field System." A true and correct copy of the '278 Patent is attached hereto as **Exhibit E**.

15. Geomatrix is the owner, by valid assignment, of all right, title, and interest in and to the '278 Patent, including the right to seek remedies and relief for past infringement thereof. A true and correct copy of the assignment of the '278 Patent is attached hereto as **Exhibit B4**.

16. The '863, '271, '875, and the '278 patents are collectively referred to herein as the "Asserted Patents".

Background Facts

17. David A. Potts ("Potts") is the named inventor on all of the Asserted Patents and is the CEO of Geomatrix.

18. Potts has long been a pioneer in developing, designing, manufacturing, selling, and otherwise providing systems and methods for the treatment of wastewater, leach fields, and leach field aeration in the State of Connecticut and across the United States. Including the Asserted Patents, Potts' innovative wastewater technologies have been the subject of over 25 United States patents and several foreign patents.

19. Geomatrix's business operations include developing, designing, manufacturing, selling, installing, maintaining, repairing and remediating commercial and residential onsite wastewater systems, both in Connecticut and elsewhere in U.S.

20. Upon information and belief, Eljen designs, manufactures, uses, sells and offers to sell the Mantis® branded wastewater systems, both in Connecticut and elsewhere in the U.S.

21. Eljen and Geomatrix are direct competitors in the sale and manufacture of wastewater systems.

22. Eljen's website at www.eljen.com, identifies two different types of Mantis® wastewater systems: "Connecticut Mantis Products," and the "M5 Series".

23. Eljen's website includes specific informational pages on the Connecticut Mantis Products at www.eljen.com/mantis-CT ("Eljen's website"), including a section on "How the Mantis System Works".

24. The Connecticut Mantis Products are generally described on Eljen's website as a "wastewater dispersal and disposal technology that applies clarified effluent to the native soil."

25. The Eljen website identifies the following Current Connecticut Mantis Products: 536-8, the DW-100 and the DW-58 (collectively "Current Connecticut Mantis Products," individually, "Current Mantis 536-8, Current Mantis DW-100, and Current Mantis DW-58).

Current Connecticut Mantis Products

26. The Eljen website also provides a link for additional "Mantis Specifications", which directs the viewer to the "Mantis Wastewater Systems – Eljen Mantis 536-8 & DW Systems Overview" brochure. A true and correct copy of the current "Mantis Wastewater Systems – Eljen Mantis 536-8 & DW Systems Overview" brochure is attached hereto as **Exhibit F**.

27. Exhibit F illustrates the Current Eljen Mantis 536-8 System, reproduced below:



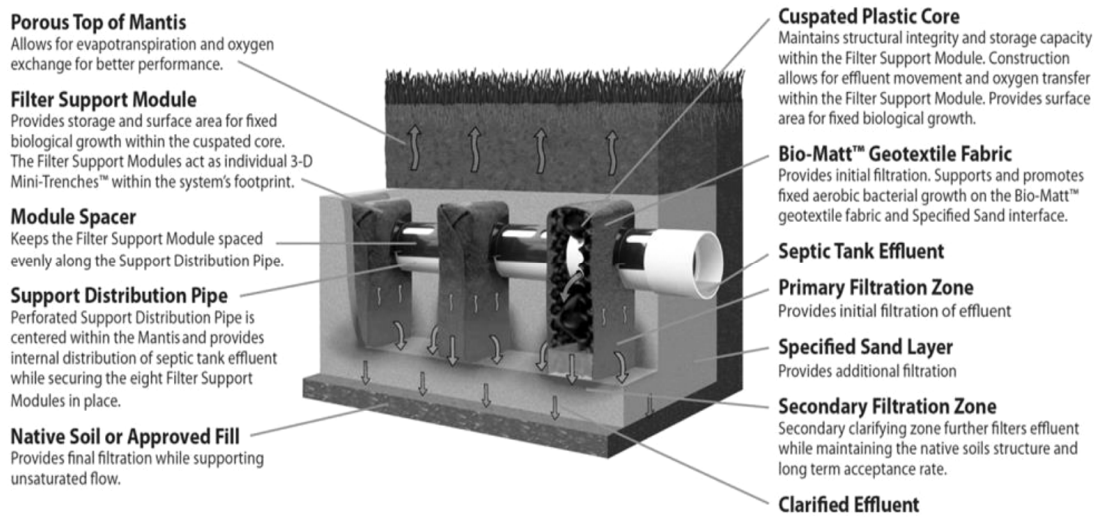
- 11.0 sf/lf effective leaching area rating



28. Under the “Resources” tab of Eljen’s website, there is a “System Design & Installation Manual” for the “Mantis Wastewater Systems 536-8 Series”, a copy of which is attached hereto as **Exhibit G**.

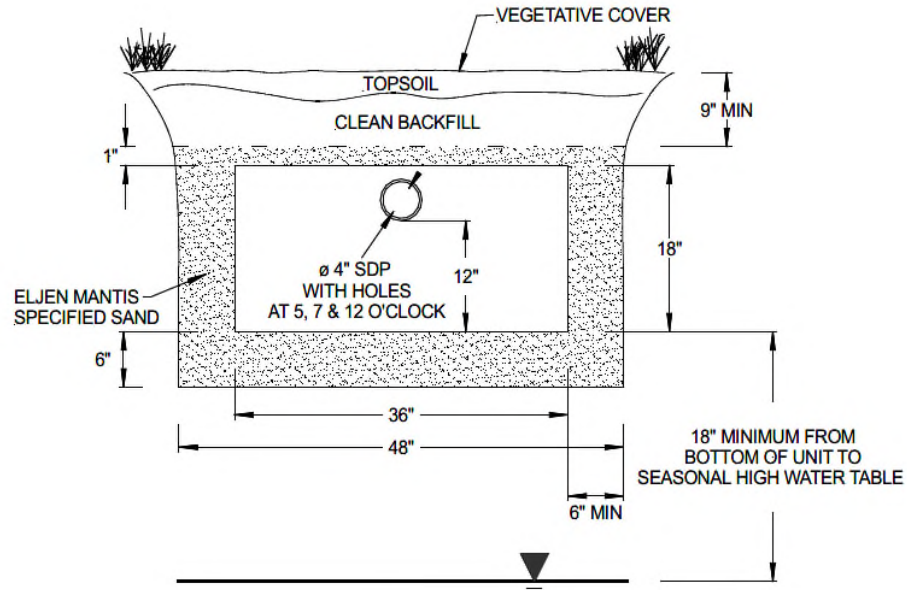
29. Exhibit G provides a general description of the Current Mantis 536-8 system. The Current Mantis 536-8 is referred to as the “Mantis 536-8 Series” in Exhibit G.

30. The components of the Current Mantis 536 Series are depicted on page 5, in Figure 1, of Exhibit G as follows:



31. As described on page 3 of Exhibit G, the Current Mantis 536-8 “comes preassembled and is 5 feet in length (as measured from the Support Distribution Pipe) x 36” wide x 18” high. The system is installed in a minimum 48” wide trench with a Specified Sand envelope around the Mantis units.”

32. Figure 2 in Exhibit G on page 9 depicts a cross-sectional view of the Current Mantis 536-8 as installed according to Eljen’s directions and specifications, which is reproduced below:



33. As described on page 3 of Exhibit G, the Current Mantis 536-8 includes “8 Filter Support Modules (FSM) for each Mantis 536-8 Series unit.” The Current Mantis 536-8 “FSMs are 18” high.”

34. As described on page 5 of Exhibit G, “the Filter Support Modules filter septic tank effluent.”

35. As described on page 5 of the Exhibit G, “[e]ach module consists of a cusped core surrounded by *Bio-Matt™* geotextile fabric.”

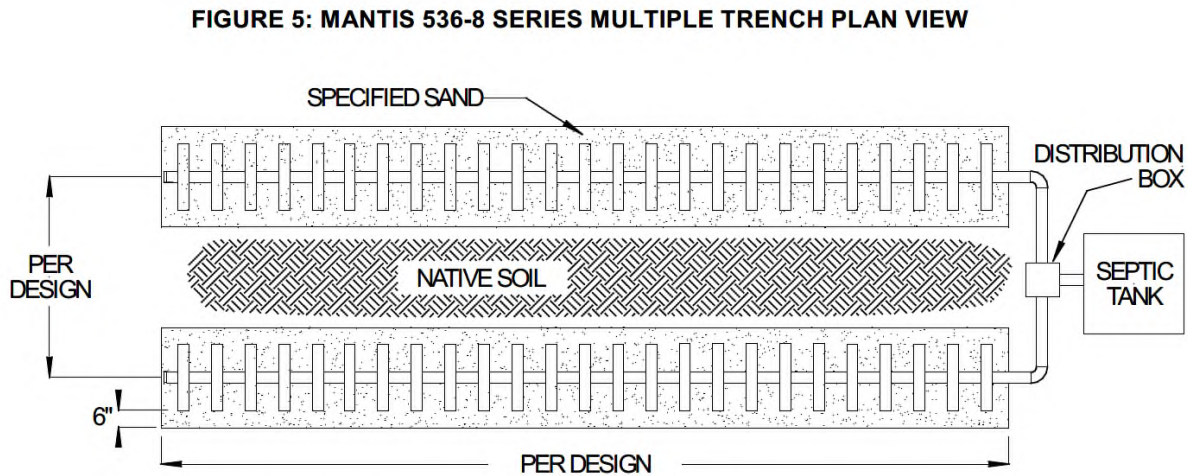
36. As described on page 3 of the Exhibit G, the Support Distribution Pipe “feeds the FSM which provides surface area for treatment and filtration of wastewater.”

37. As described on page 3 of Exhibit G, the Support Distribution pipe is 5 feet in length” and “provides 3 pre-drilled 1 inch holes within each Filter Support Module” to provide “module support and internal distribution for the FSMs.”

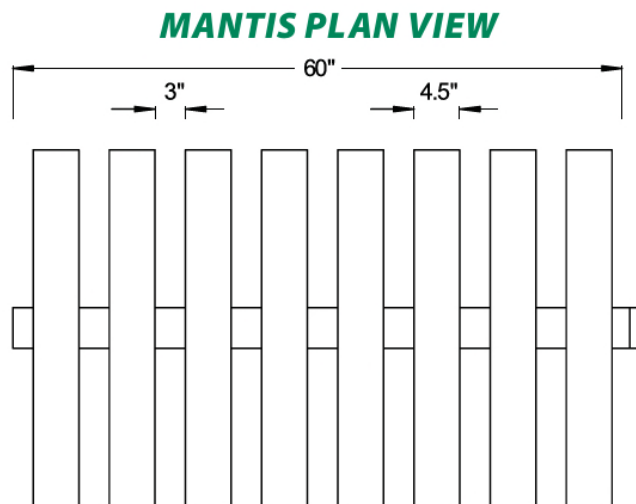
38. As described on page 5 of Exhibit G, the perforated Support Distribution Pipe is centered within the Current Mantis 536-8 Series.

39. As described on page 4 of Exhibit G, the Specified Sand envelope around the Current Mantis 536-8 Series units includes “6” minimum underneath – 6” minimum on the sides – 1” minimum on the top – 3” in-between the Filter Support Modules.”

40. As shown in a plan view in FIGURE 5 of Exhibit G, reproduced below, the sand is disposed in a spacing defined between individual filter support modules.



41. Referring to Exhibit F, on page 4 thereof, a plan view illustrating the respective measurements of the width of the Filter Support Modules (reproduced below) for the Current Connecticut Mantis Products is shown, as well as measurements of a spacing between adjacent Filter Support Modules.



42. More specifically, each Filter Support Module for the Current Mantis 536-8 System is 4.5” wide. The spacing between each adjacent Filter Support Module for the Current Mantis 536-8 System is 3”.

43. The Current Mantis 536-8 System also includes two sets of edge spacers that extend along the upper and lower corners of the length of the assembled Filter Support Modules to frame the respective systems and to maintain the spacing between the Filter Support Modules. Retention bands secure and retain the edge spacers as shown below:



See Exhibit F, pg. 2, Exhibit G, pg. 10.

44. On Eljen’s website at eljen.com/mantis-design-manuals, there is a link for the design of the Current Mantis DW-100 and DW-58 Systems. The link directs the viewer to the “Mantis Wastewater Systems –Mantis DW Series” System Design & Installation Manual. A true and correct copy of the current “Mantis Wastewater Systems - Mantis DW Series System Design & Installation Manual is attached hereto as **Exhibit H**.

45. Exhibit F illustrates the components of Current Eljen Mantis DW-100 and the Current Eljen Mantis DW-58 Systems, reproduced below:



- 20.0 sf/lf effective leaching area rating
- Low Profile model receives 11.6 sf/lf effective leaching area rating



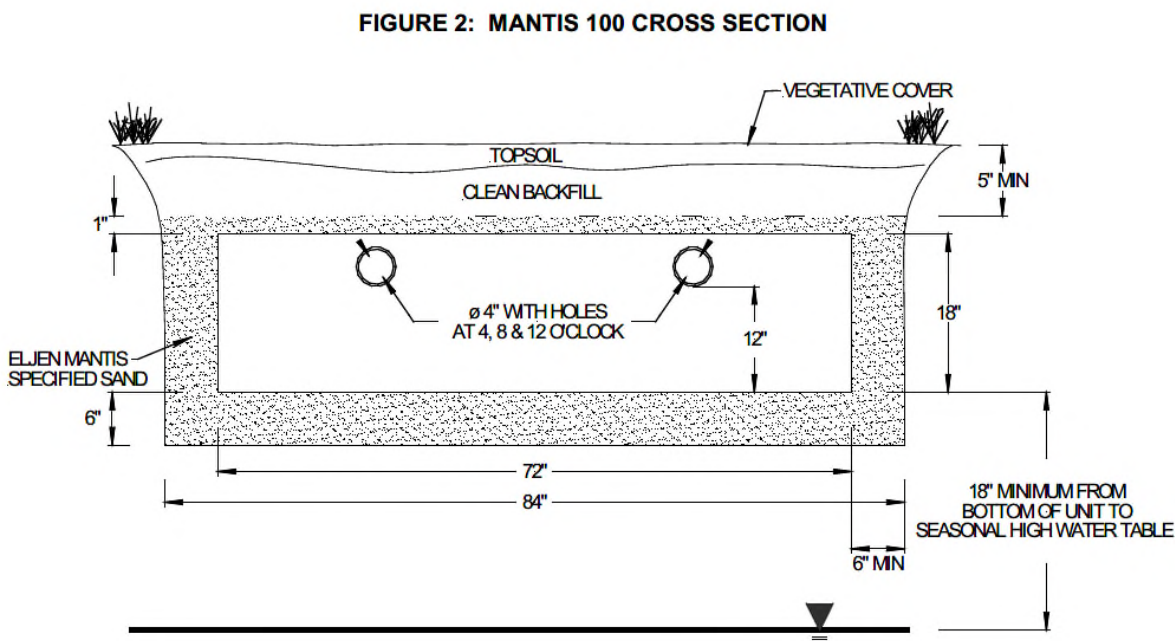
46. Exhibit H provides a general description of the Current Mantis DW-100 and the Current Mantis DW-58 Systems, which have common components and are collectively referred to as the “Mantis DW Series” in Exhibit H.

47. On page 5 of Exhibit H, the same FIGURE 1 as reproduced above in paragraph 30 is also shown to identify the components of the Mantis DW Series.

48. As described on page 3 of Exhibit H, the Current “Mantis DW-100” “comes preassembled and is 5 feet in length (as measured from the Support Distribution Pipe) x

72” wide and 18” high. The system is installed in a minimum 84” wide trench with a Specified Sand envelope around the Mantis units.”

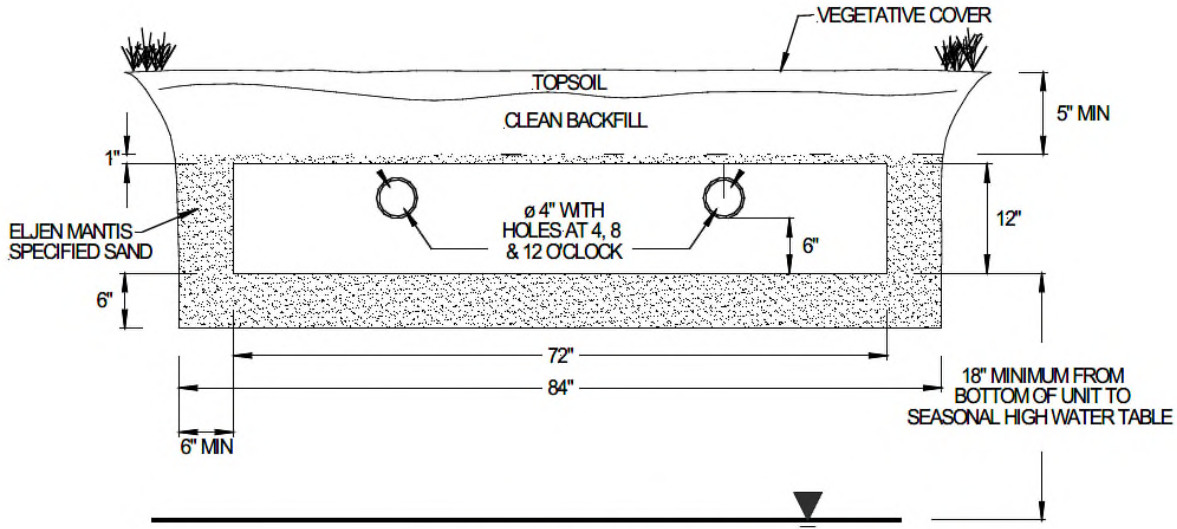
49. Figure 2 in Exhibit H on page 9 depicts a cross-sectional view of the Current Mantis DW-100, as installed according to Eljen’s directions and specifications, and is reproduced below:



50. As described on page 3 of Exhibit H, the Current Mantis DW-58 “comes preassembled and is 5 feet in length (as measured from the Support Distribution Pipe) x 72” wide and 12” high. The system is installed in a minimum 84” wide trench with Specified Sand envelope around the Mantis units.”

51. Figure 3 in Exhibit H on page 9 depicts a cross-sectional view of the Current Mantis DW-58, as installed according to Eljen’s directions and specifications, and is reproduced below:

FIGURE 3: MANTIS 58 CROSS SECTION



NOTE: VENTING REQUIRED WHEN MORE THAN 18" OF COVER AS MEASURED FROM THE TOP OF THE UNIT TO FINISHED GRADE

52. As described on page 3 of Exhibit H, the Current Mantis DW Series includes "8 Filter Support Modules (FSM) for each Mantis Double-Wide unit." The Current Mantis DW-100 System "FSMs are 18" high" while the Current Mantis DW-58 System "utilizes 12" high FSMs."

53. As described on page 5 of Exhibit H, "the Filter Support Modules filter septic tank effluent."

54. As described on page 5 of the Exhibit H, "[e]ach module consists of a cusped core surrounded by *Bio-Matt*TM geotextile fabric."

55. As described on page 3 of the Exhibit H, a Support Distribution Pipe "feeds the FSM which provides surface area for treatment and filtration of wastewater."

56. As described on page 3 of Exhibit H, each "Support Distribution Pipe is 5 feet in length" and "provides 3 pre-drilled 1 inch holes within each Filter Support Module" to provide "module support and internal distribution for the FSMs."

57. As illustrated in paragraphs 51 and 53, each of the Current Mantis DW Series includes a pair of Support Distribution Pipes.

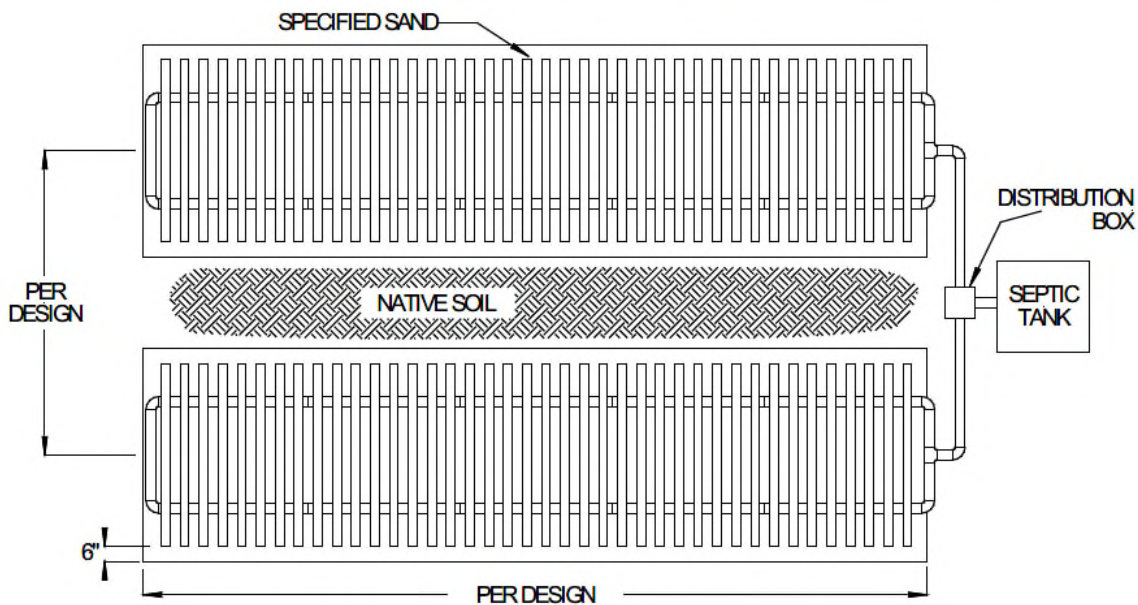
58. Upon information and belief, the Filter Support Modules of the Current Mantis DW-100 and the DW-58 units have a width between 3.5” and 4.5” like the Current Mantis 536-8 Series. See Exhibit F, pg. 4.

59. Upon information and belief, each Filter Support Module of the Current Mantis DW-100 and the DW-58 units is spaced apart from one another by approximately 3” like the Current Mantis 536-8 Series. See Exhibit F, pg. 4.

60. As described on page 4 of Exhibit H, the Specified Sand envelope around the Current Mantis DW Series units includes “6” minimum underneath – 6” minimum on the sides – 1” minimum on the top – 3” in-between the Filter Support Modules.”

61. As shown in a plan view in FIGURE 5 of Exhibit H, reproduced below, the sand is disposed in the spacing between individual filter support modules.

FIGURE 5: MANTIS DOUBLE-WIDE SERIES MULTIPLE TRENCH PLAN VIEW



62. The Current Mantis DW Series includes two sets of edge spacers extending along the upper and lower corners of the length of the assembled Filter Support Modules to frame the respective systems and to maintain the spacing between the Filter Support Modules. Retention bands secure and retain the edge spacers. See pg. 10 of Exhibit H.

Current Mantis M5 Series

63. The Eljen website at www.eljen.com/m5-series provides an image of the structural components of the Current Mantis M5 Series, reproduced below:

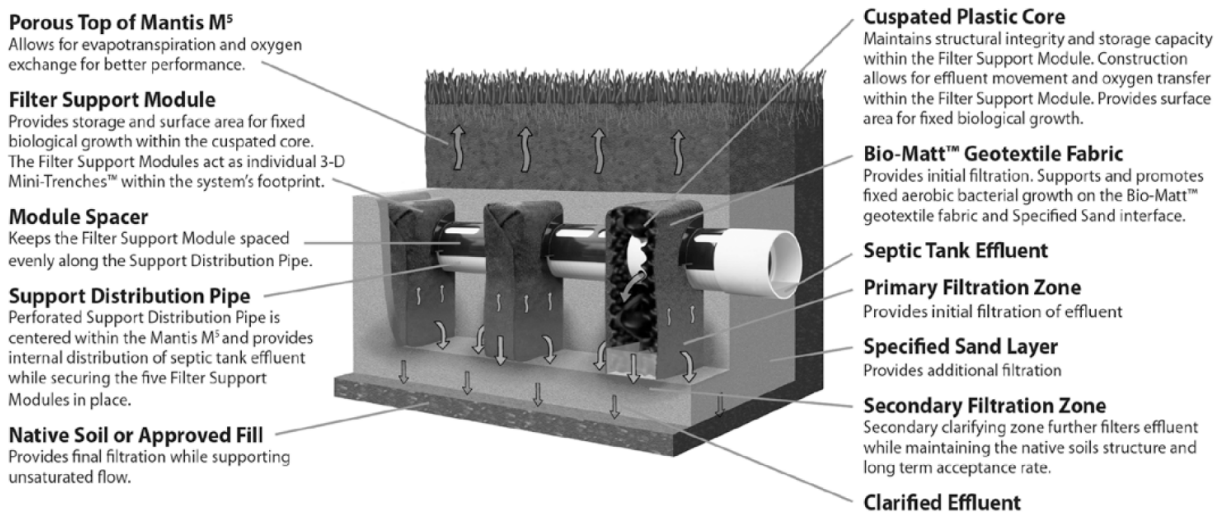


64. As shown on Eljen's website, the Current Mantis M5 Series comes in four different sizes and two different models. The two different models are referred to as the M5.2 and the M5.1.

65. As shown on Eljen's website, all of the Current Mantis M5 Series products have a common length of five feet. The M5.1 model has a width of 12 inches and a height of 12 inches. The M5.2 model has a width of 24 inches and a height of 12 inches.

66. Under the “Resources” tab on Eljen’s website, there is a drop down menu for “Design Manuals”. For the Current Mantis M5 Series models, there are design and installation manuals for the M5 Series available for Massachusetts, Vermont and Virginia. The design manuals for the three states are substantially similar with respect to the descriptions of the components of the M5 Series models. A copy of the Massachusetts System Design & Installation manual for the M5 Series is attached hereto as **Exhibit I**. Exhibit I provides a general description of the Current Mantis M5 Series Systems.

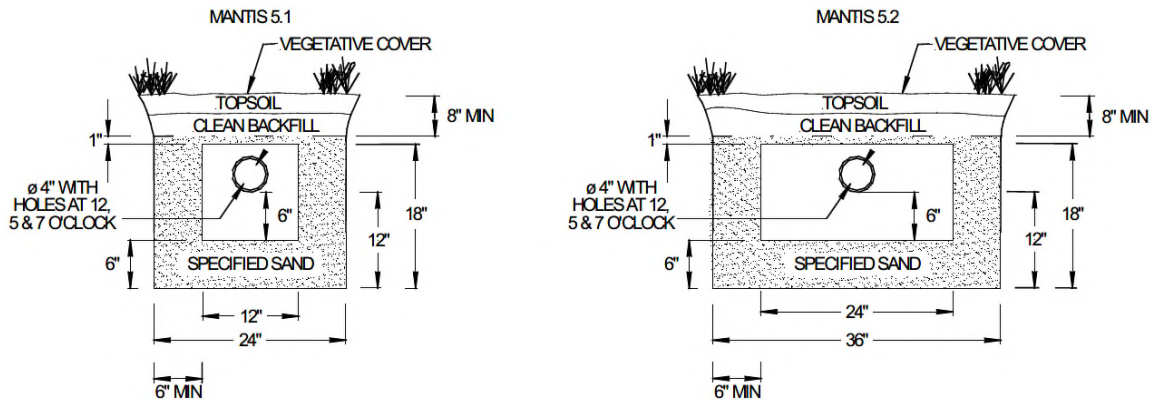
67. The components of the “Mantis M5 Components” are depicted on page 4, in FIGURE 1, of Exhibit I as follows:



68. As described on page 3 of Exhibit I, each Current Mantis M5 Series unit “come preassembled and is 5 feet in length (as measured from the Support Distribution Pipe) and 8” or 12” high depending on the model. 12” and 24” wide models are available.”

69. FIGURES 2-4 of Exhibit I, reproduced below, show “product specific details.”

FIGURE 2: MANTIS M⁵ CROSS SECTION



70. For example, referring to FIGURE 2 in paragraph 71, the Current Mantis M5.1 unit is 12” wide, while the Current Mantis M5.2 unit is 24” wide.

71. FIGURE 2 in paragraph 71 also illustrates that both the Current Mantis M5.1 and M5.2 units are 12 inches high.

72. FIGURE 4 in paragraph 71 illustrates that each Filter Support Module is 4” wide for the Current Mantis M5.1 and the Current Mantis M5.2.

73. FIGURE 4 in paragraph 71 illustrates that each Filter Support Module is spaced from an adjacent Filter Support Module by 8” for the Current Mantis M5 5.1 and the Current Mantis M5 5.2.

74. As described on page 4 of Exhibit I, “the Filter Support Modules filter septic tank effluent.”

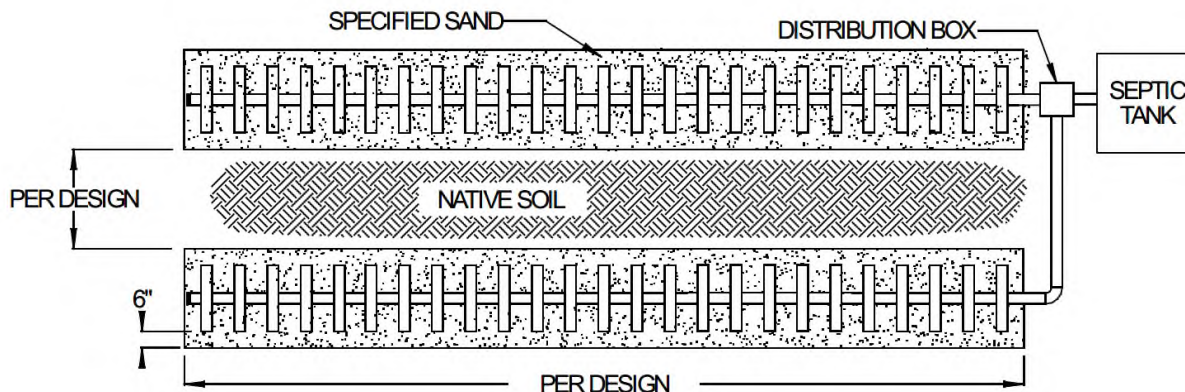
75. As described on page 4 of the Exhibit I, with respect to the Filter Support Modules, “[e]ach module consists of a cusped core surrounded by *Bio-Matt™* geotextile fabric.”

76. As described on page 3 of Exhibit I, the “Support Distribution Pipe is 5 feet in length” and “provides 3 pre-drilled 1 inch holes within each Filter Support Module.”

77. As described on page 4 of Exhibit I, the perforated Support Distribution Pipe is centered within each of the Current Mantis M5 Series.

78. As described on page 3 of Exhibit I, the Specified Sand envelope around the Current Mantis M5 Series units include “6” minimum underneath – 6” minimum on the sides – 1” minimum on the top – 8” in-between the Support Modules.”

79. As shown in a plan view in FIGURE 6 of Exhibit I, reproduced below, the sand is disposed in the spacing defined between adjacent individual filter support modules.



80. Like the Current Mantis 536-8 Series and the Current Mantis DW Series, the Current Mantis M5 is provided with two sets of edge spacers that extend along the upper and lower corners of the length of the assembled Filter Support Modules to frame

the respective systems and to maintain the spacing between the Filter Support Modules. Each edge spacer is provided with a vertical section and a horizontal section, with the vertical sections running along a side surface of a portion of the filter support module and the horizontal section being disposed along either a top surface or a bottom surface of the filter support modules. Retention bands secure and retain the edge spacers as shown below. See **Exhibit I-2**, Current Mantis M5 Series Brochure.



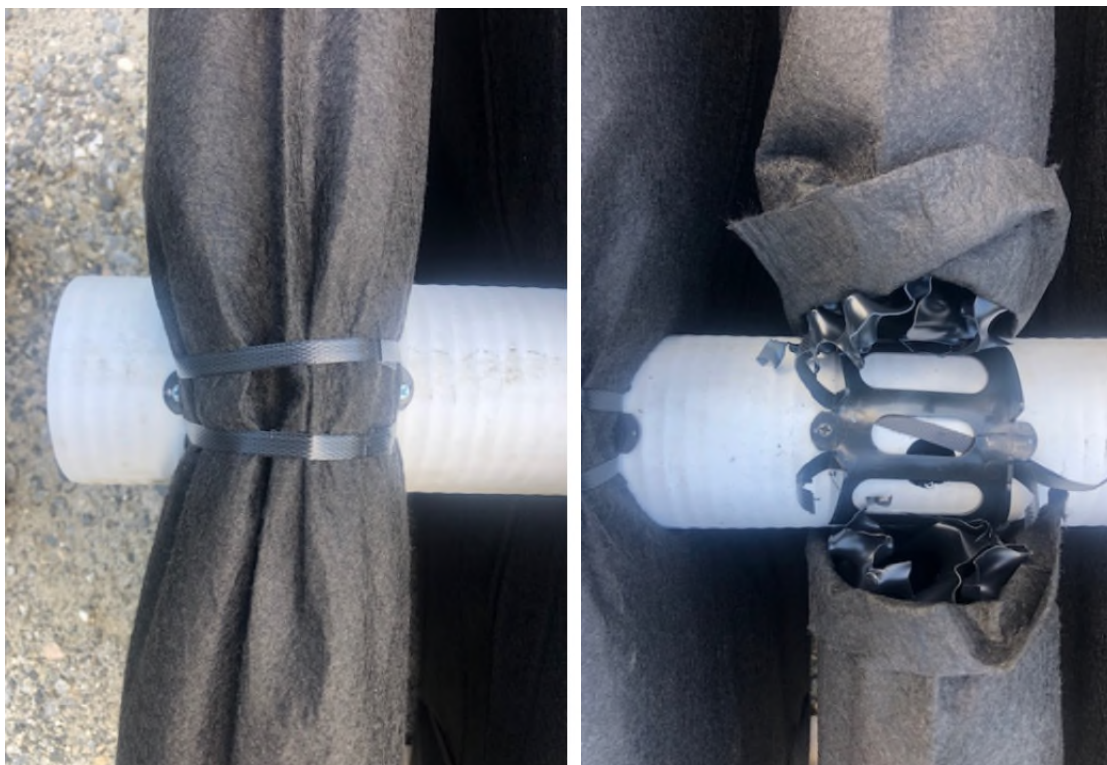
Prior Mantis Products

81. Upon information and belief, Eljen has sold prior versions of the Current Connecticut Mantis Products and the Current Mantis M5 Series until the summer of 2019 (Referred to collectively herein as “Prior Mantis Products” and individually as “Prior Mantis 536-8 Series, Prior Mantis DW Series and Prior Mantis M5 Series”).

82. Upon information and belief, Eljen reproduced its prior design manuals that illustrated details of the Prior Mantis Products to generate the design manuals for

the Current Mantis 536-8 Series, the DW Series and the M5 Series, the only differences being including replacing the images on the front cover of the design manuals for Prior Mantis 536-8 Series, the Prior Mantis DW Series and the Prior Mantis M5 Series systems with images of the Current Mantis 536-8 Series, the Current Mantis DW Series and the Current Mantis M5 Series units.

83. Upon information and belief, the only structural differences between the Prior Mantis Products and the Current Connecticut Mantis Products (including the Current Mantis M5 Products) are that 1) the Current Connecticut Mantis Products do not include a black “Module Spacer” (described in paragraphs 103-104 below and shown in the Figure depicted in Paragraph 30 (labeled “Module Spacer”) disposed over the Support Distribution Pipe and 2) the Prior Mantis Products do not include a saddle element that is secured to the Support Distribution Pipe and secures, via retention bands, to a portion of a Filter Support Module, as shown in the photographs below:



84. The design of the Prior Mantis 536-8 system may be found in the April 14, 2018 archived webpages of www.eljen.com/mantis-536-8 at web.archive.org and is shown below:

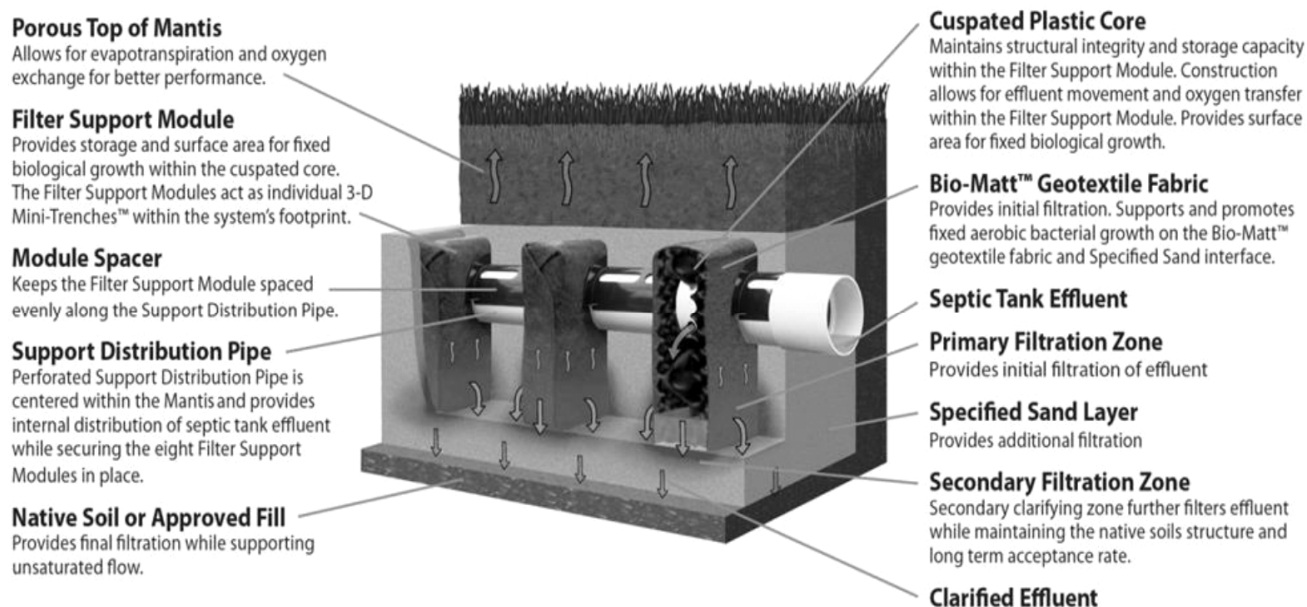


85. The details of the specifications and components of the Prior Mantis 536-8 System are shown in the System Design & Installation Manual – Mantis 536-8 Series, attached hereto as **Exhibit J**.

86. Exhibit J provides a general description of the Prior Mantis 536-8.

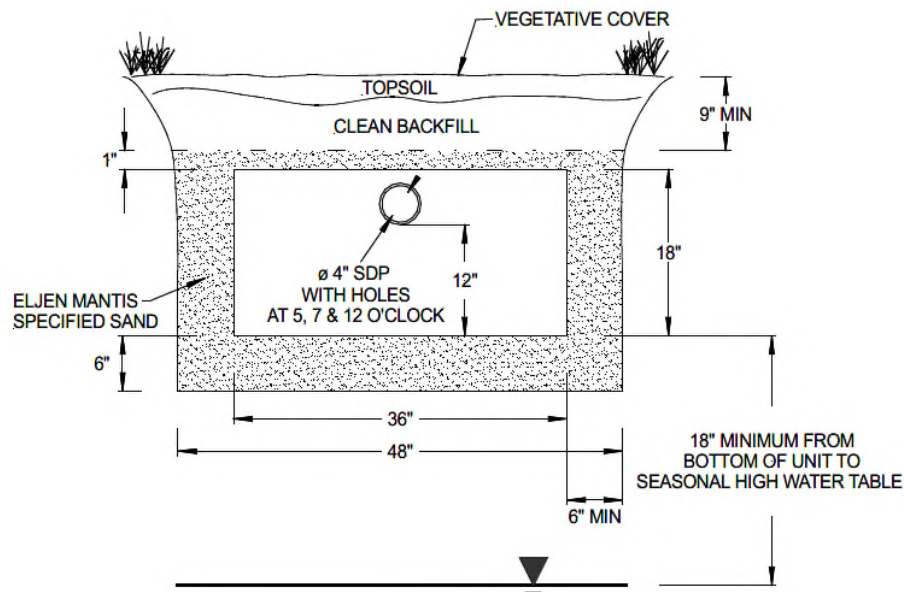
87. The Prior Mantis 536-8 has common components and is referred to as the “Mantis 536-8 Series” in Exhibit J.

88. The components of the Prior “Mantis 536-8 Series” are depicted on page 5, in FIGURE 1, of Exhibit J as follows:



89. As described on page 3 of Exhibit J, the Prior Mantis 536-8 “comes preassembled and is 5 feet in length (as measured from the Support Distribution Pipe) x 36” wide x 18” high. The system is installed in a minimum 48” wide trench with a Specified Sand envelope around the Mantis units.”

90. FIGURE 2 in Exhibit J on page 9 depicts a cross-sectional view of the Prior Mantis 536-8, as installed according to Eljen’s directions and specifications, and is reproduced below:



91. As described on page 3 of Exhibit J, the Prior Mantis 536-8 Series included “8 Filter Support Modules (FSM) for each Mantis 536-8 Series unit.” The Prior Mantis 536-8 “FSMs” were 18” high.”

92. As described on page 5 of Exhibit J, “the Filter Support Modules” filtered “septic tank effluent” for the Prior Mantis 536-8 Series Systems.

93. As described on page 5 of the Exhibit J, “[e]ach module consist[ed] of a cusped core surrounded by *Bio-Matt*TM geotextile fabric.”

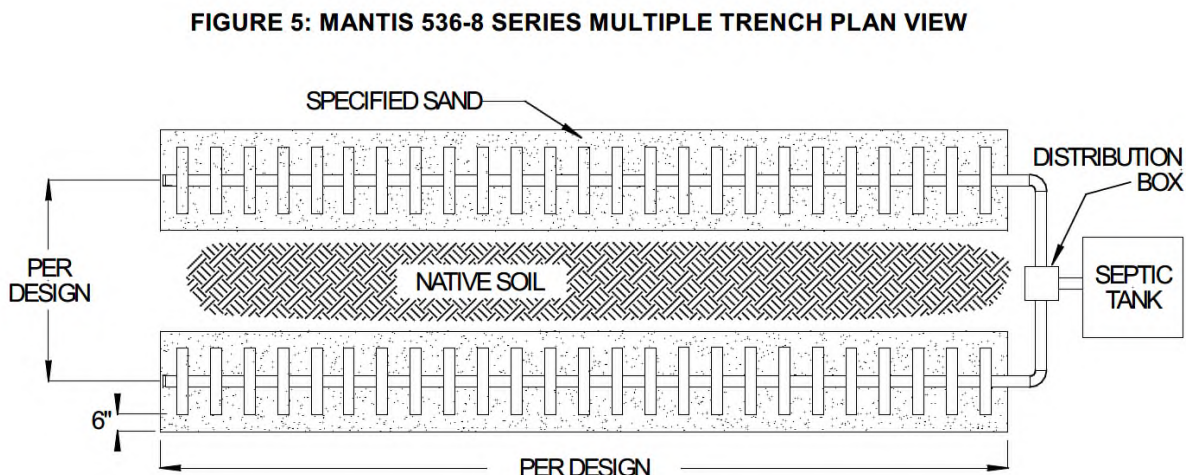
94. As described on page 3 of the Exhibit J, the Support Distribution Pipe fed “the FSM which provides surface area for treatment and filtration of wastewater.”

95. As described on page 3 of Exhibit J, the Support Distribution pipe was “5 feet in length” and provided “3 pre-drilled 1 inch holes within each Filter Support Module” to provide “module support and internal distribution for the FSMs” in the Prior Mantis 536-8 Series Systems.

96. As described on page 5 of Exhibit J, the perforated Support Distribution Pipe was centered within the Prior Mantis 536-8 Series Systems.

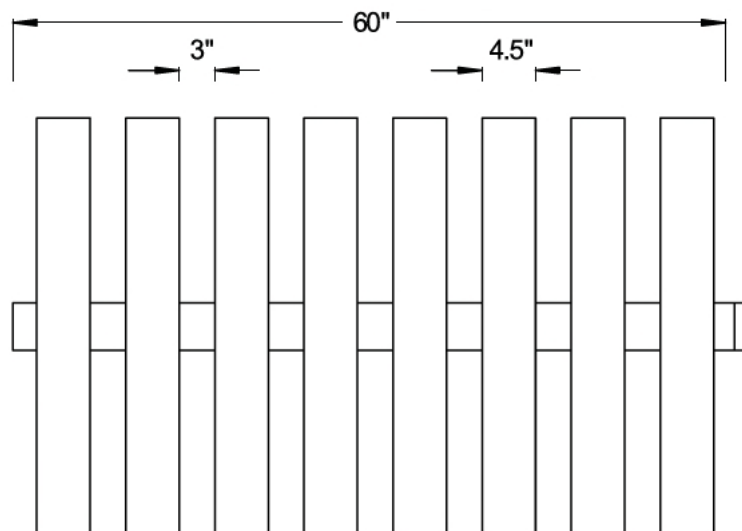
97. As described on page 4 of Exhibit J, the Specified Sand envelope around the Prior Mantis 536-8 Series units included “6” minimum underneath – 6” minimum on the sides – 1” minimum on the top – 3” in-between the Filter Support Modules.”

98. As shown in a plan view in FIGURE 5 of Exhibit J, reproduced below, the sand is disposed in the spacing between individual filter support modules in the Prior Mantis 536-8 Series Systems.



99. The Prior Mantis 536-8 Series System Brochure is attached hereto as **Exhibit K.**

100. On page 2 of Exhibit K, a plan view illustrating the respective measurements of the width of the Filter Support Modules (reproduced below) for the Prior Mantis 536-8 Series Systems, as well as measurements of the spacing between adjacent Filter Support Modules are shown:

MANTIS 536-8 PLAN VIEW

101. More specifically, as shown in paragraph 100, the width of each of the Filter Support Modules is 4.5” in the Prior Mantis 536-8 Series Systems.

102. As shown in paragraph 100, the spacing between adjacent Filter Support Modules is 3” in the Prior Mantis 536-8 Series Systems.

103. As shown in paragraph 88, a black “Module Spacer” is provided between adjacent Filter Support Modules on top of the Support Distribution Pipe. The Module Spacer “keeps the Filter Support Modules spaced evenly along the Support Distribution Pipe.”

104. Each black Module Spacer further included an engagement flange that engages against an infiltrative surface of the Filter Support Modules.

105. The Prior Mantis 536-8 System also included two sets of edge spacers extending along the upper and lower corners of the length of the assembled Filter Support Modules to frame the respective systems and to maintain the spacing between

the Filter Support Modules. Retention bands secure and retain the edge spacers as shown in Exhibits J and K.

106. The design of the Prior Mantis DW (Double Wide) Systems (DW 100 and DW 58) as found in the May 5, 2018 archived webpages of www.eljen.com/mantis-double-wide found at web.archive.org is shown below:



107. A copy of the Prior Mantis DW Series Brochure is attached hereto as **Exhibit L**. A true and correct copy of an archived “System Design & Installation Manual – Mantis DW Series” dated February 16, 2016 is attached hereto as **Exhibit M**.

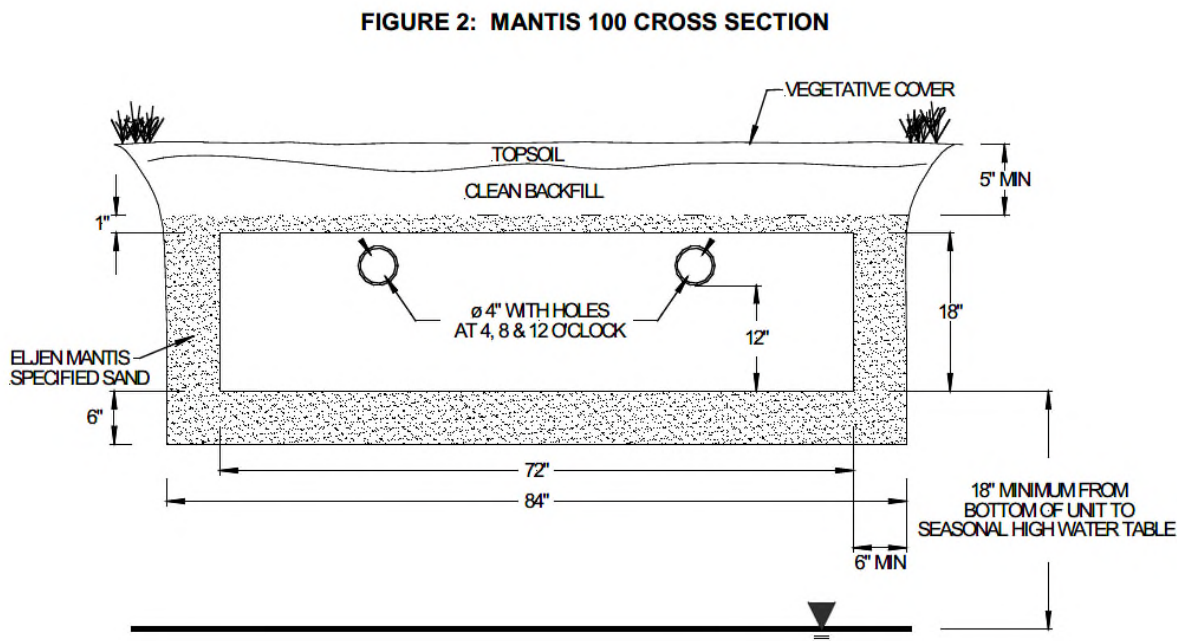
108. The Prior Mantis DW 100 and DW 58 Systems “are similar to the [Prior] Mantis 536-8 series products; [...] they are twice as wide.” **Exhibit N** – April 28, 2016 Eljen Mantis Double-Wide 100 & 58 Proprietary Leaching System Approvals.

109. Exhibits M and N each provide a general description of the Prior Mantis DW-100 and the Prior Mantis DW-58 Systems.

110. The Prior Mantis DW-100 and the Prior Mantis DW-58 have common components and are collectively referred to as the “Mantis DW Series” in Exhibit M.

111. As described on page 3 of Exhibit M, the Prior “Mantis DW-100” came “preassembled and is 5 feet in length (as measured from the Support Distribution Pipe) x 72” wide and 18” high. The system is installed in a minimum 84” wide trench with a Specified Sand envelope around the Mantis units.”

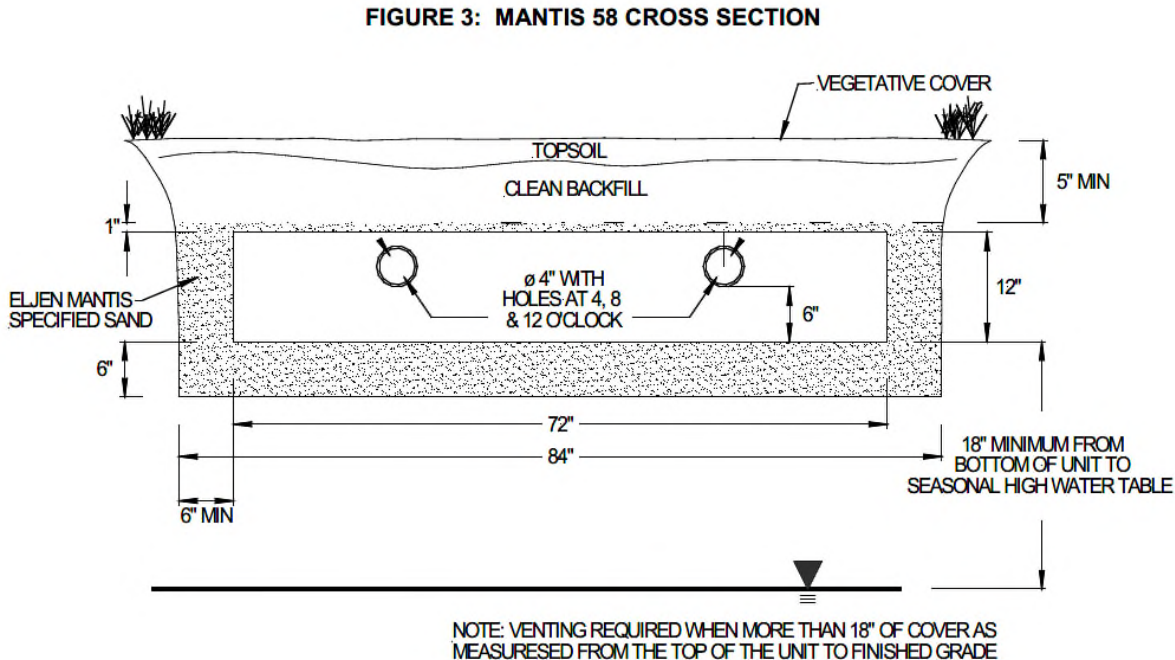
112. FIGURE 2 in Exhibit M on page 9 depicts a cross-sectional view of the Prior Mantis DW-100 as installed according to Eljen’s directions and specifications, and is reproduced below:



113. In addition, Exhibit N further confirms that the Prior Mantis DW-100 came preassembled and “consist[ed] of 5 feet long ‘units’ that can be connected end to end.”

114. As described on page 3 of Exhibit M, the Prior Mantis DW -58 “comes preassembled and is 5 feet in length (as measured from the Support Distribution Pipe) x 72” wide and 12” high. The system is installed in a minimum 84” wide trench with Specified Sand envelope around the Mantis units.”

115. Figure 3 in Exhibit M on page 9 depicts a cross-sectional view of the Prior Mantis DW-58, as installed according to Eljen's directions and specifications, and is reproduced below:



116. "The [Prior Mantis] DW 58 is similar to the [Prior Mantis] DW 100 except that modules for the DW 58 are 12 inches high. Exhibit N.

117. As described on page 3 of Exhibit M, the Prior Mantis DW Series includes "8 Filter Support Modules (FSM) for each Mantis Double-Wide unit." The Prior Mantis DW-100 System "FSMs are 18" high" while the Prior Mantis DW-58 System "utilizes 12" high FSMs."

118. As described on page 5 of Exhibit M, "the Filter Support Modules filter septic tank effluent."

119. As described on page 5 of the Exhibit M, "[e]ach module consists of a cusped core surrounded by *Bio-Matt*TM geotextile fabric." See also Exhibit N ("[T]he

modules [of the Prior Mantis DW 100-Systems] have internal plastic cusped material that is wrapped with filter fabric on the sides and top.”)

120. Exhibit N confirms that the Prior Eljen Mantis DW-100 had “eight independent ‘modules’ that are equally spaced along two internal 4 inch diameter perforated distribution pipes.”

121. Upon information and belief, the Filter Support Modules of the DW-100 and the DW-58 units had a width between 3.5” and 4.5”.

122. Upon information and belief, each Filter Support Module of the DW-100 and the DW-58 units is spaced apart from one another by approximately 3” or more like the Prior Mantis 536-8 Series.

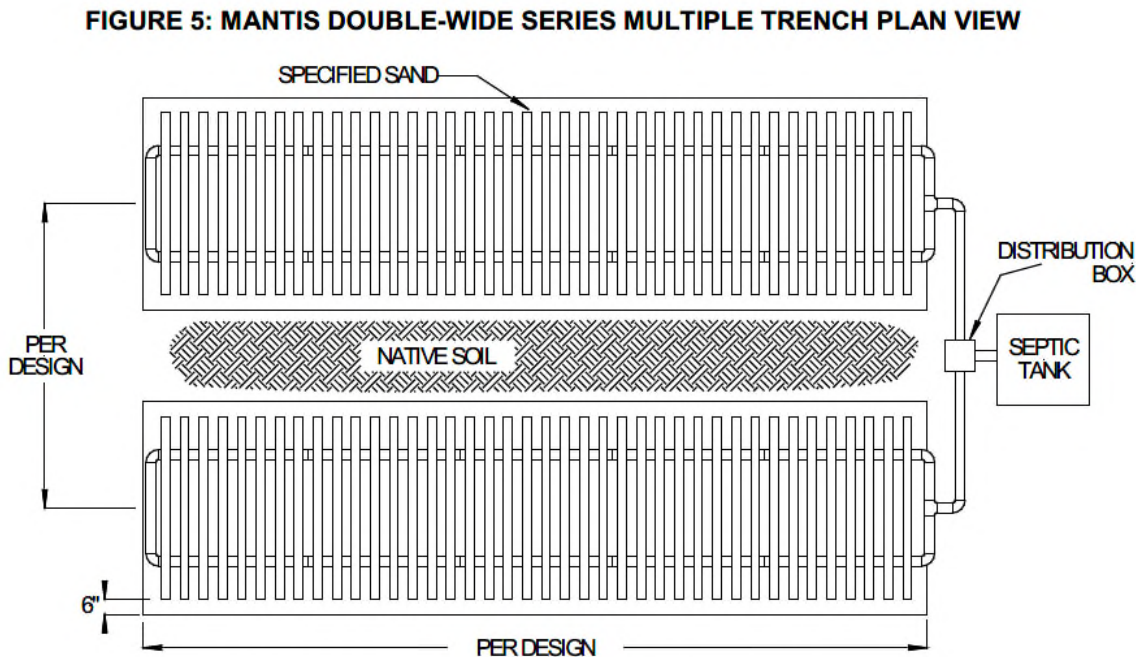
123. The Prior Eljen Mantis DW 100 is installed in a minimum 84-inch wide trench with a “specified sand” envelope. “The specified sand envelope includes 6 inches minimum underneath and on the sides of the units, 1-inch on top of the units as well as 4 inches in between the modules.” Exhibit N; see *a/so* page 4 of Exhibit M.

124. As described on page 3 of the Exhibit M, the Support Distribution Pipe “feeds the FSM which provides surface area for treatment and filtration of wastewater.”

125. As described on page 3 of Exhibit M, each Support Distribution Pipe was 5 feet in length and “provide[d] 3 pre-drilled 1 inch holes within each Filter Support Module” to provide “module support and internal distribution for the FSMs.” The perforated distribution pipe of the Prior Eljen Mantis DW 100 provided effluent to each individual module via 1-inch diameter holes located at the 4, 8 & 12 o’clock positions. Exhibit N.

126. As illustrated in paragraphs 118 and 121, each of the Prior Mantis DW Series units includes a pair of Support Distribution Pipes.

127. As shown in a plan view in FIGURE 5 of Exhibit M, reproduced below, the sand is disposed in the spacing defined between individual filter support modules.



128. As shown in Exhibit M, like the Prior Mantis 536-8, the Prior Mantis DW 100 and DW 58 Systems also included the visible black “module Spacer” disposed over the Support Distribution Pipes to keep the Filter Support Modules spaced evenly along the Support Distribution Pipes. See Exhibit M, FIGURE 1, pg. 5.

129. The Prior Mantis DW Series units also included two sets of edge spacers that extended along the upper and lower corners of the length of the assembled Filter Support Modules to frame the respective systems and to maintain the spacing between the Filter Support Modules. Retention bands secured and retained the edge spacers,

like the Prior Mantis 536-8 Series. See pg. 10 of Exhibit M (“after the Mantis Double-Wide Series units are set in place, cut the plastic straps holding the cardboard supports on the sides of the units.”).

130. An image of a Prior Mantis DW Series unit being installed that illustrates the edge spacers and retention bands is shown below:



Prior Mantis M5 Series

131. The design of the Prior Mantis M5 Series systems may be found in the June 9, 2017 archived webpages at [webarchive.org/web/20170608183501/http://www.eljen.com/m5-series](http://www.eljen.com/m5-series) and is shown below:



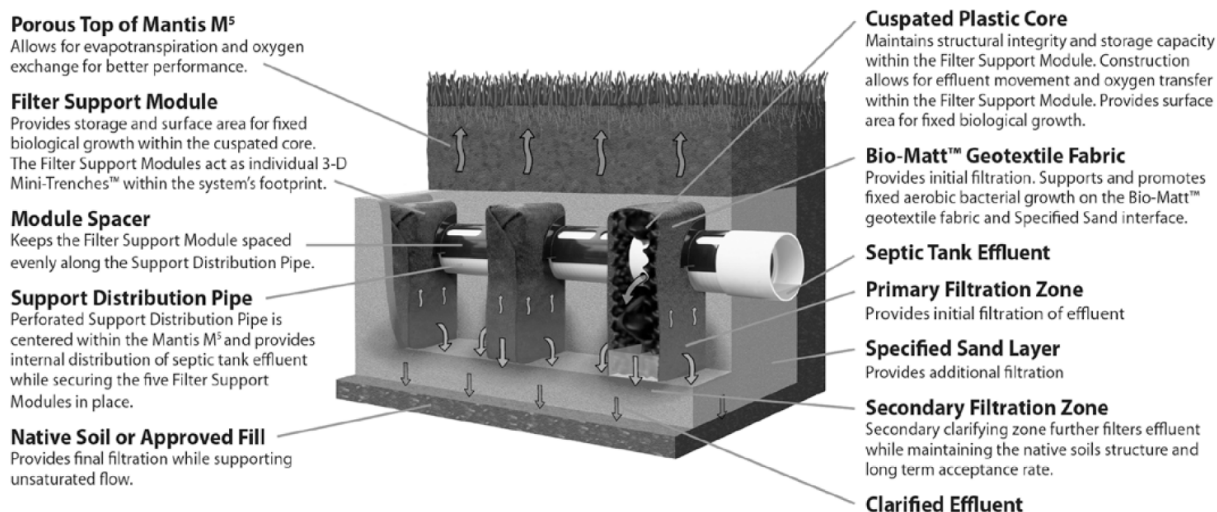
132. As shown on Eljen's archived website identified above, like the Current Mantis M5 Series, the Prior Mantis M5 Series units came in four different sizes and two different models. The two different models are referred to as the M5.2 and the M5.1.

133. As identified on Eljen's archived website, the Prior Mantis M5 Series had a common length of five feet. The Prior Mantis M5.1 model had a width of 12 inches and a height of 12 inches. The Prior Mantis M5.2 model had a width of 24 inches and a height of 12 inches.

134. Attached hereto as **Exhibit O** is a true and correct copy of the System Design & Installation Manual for the Prior Mantis M5 Series that was available for the

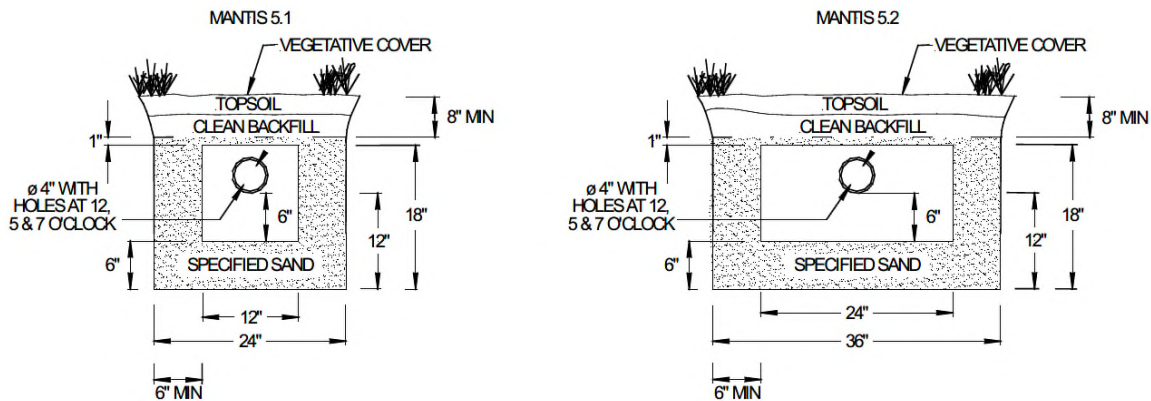
Massachusetts market in 2014. Exhibit O provides a general description of the Prior Mantis M5 Series Systems.

135. The components of the Prior “Mantis M5 ” Series are depicted on page 4, in FIGURE 1, of Exhibit O as follows:



136. As described on page 3 of Exhibit O, the Prior Mantis M5 Series units came “preassembled and are 5 feet in length (as measured from the Support Distribution Pipe) and 8” or 12” high depending on the model. 12” and 24” wide models are available.”

137. FIGURES 2-4 of Exhibit O, reproduced below, show “product specific details” of the Prior Mantis M5 Series Units:

FIGURE 2: MANTIS M⁵ CROSS SECTION

138. For example, referring to FIGURE 2 in paragraph 143, the Prior Mantis M5 5.1 unit is 12" wide, while the Prior Mantis M5 5.2 unit is 24" wide.

139. FIGURE 2 in paragraph 143 also illustrates that both the Prior Mantis M5 5.1 and Prior Mantis M5 5.2 units are 12 inches high.

140. FIGURE 4 in paragraph 143 illustrates that each Filter Support Module is 4" wide for the Prior Mantis M5 5.1 and Prior Mantis M5 5.2.

141. FIGURE 4 in paragraph 143 illustrates that each Filter Support Module is spaced from an adjacent Filter Support Module by 8" for the Prior Mantis M5 5.1 and Prior Mantis M5 5.2.

142. As described on page 4 of Exhibit O, "the Filter Support Modules filter septic tank effluent."

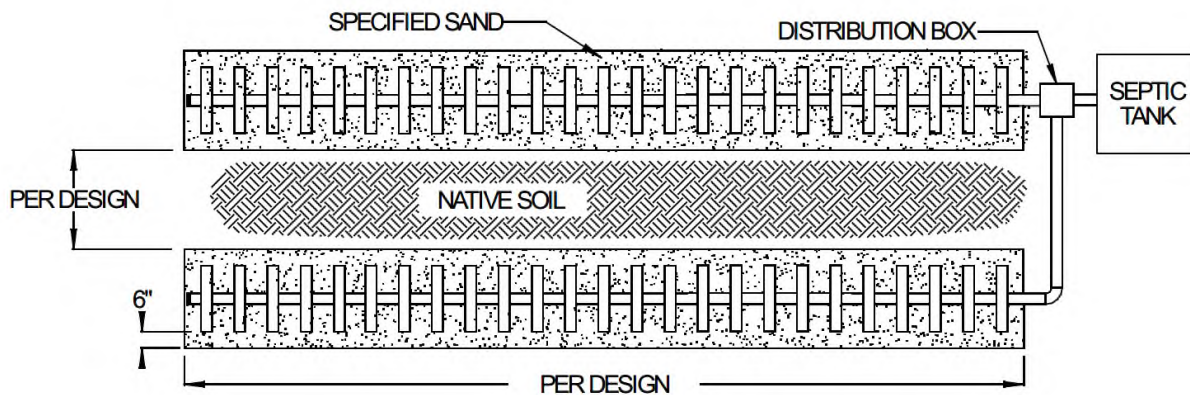
143. As described on page 4 of the Exhibit O, with respect to the Filter Support Modules, "[e]ach module consists of a cusped core surrounded by *Bio-Matt*TM geotextile fabric."

144. As described on page 3 of Exhibit O, “the Support Distribution Pipe is 5 feet in length” and “provides 3 pre-drilled one inch holes within each Filter Support Module”

145. As described on page 4 of Exhibit O, the perforated Support Distribution Pipe was centered within each of the Mantis M5 Series.

146. As described on page 3 of Exhibit O, the Specified Sand envelope around the Prior Mantis M5 Series units included “6” minimum underneath, 6” minimum on the sides, 1” minimum on the top, and 8” in-between the Support Modules.”

147. As shown in a plan view in FIGURE 6 of Exhibit I, reproduced below, in the Prior Mantis M5 Series Units, the sand is disposed in the spacing between individual filter support modules.



148. As shown in Exhibit O, like the Prior Mantis 536-8, the Prior Mantis M5 Series systems also included the visible black “module Spacer” disposed over the Support Distribution Pipes to keep the Filter Support Modules spaced evenly along the Support Distribution Pipes. See Exhibit O, FIGURE 1, pg. 4.

149. Like the Current Mantis Products and the Prior Mantis 536-8 Series and the Prior Mantis DW Series, the Prior Mantis M5 Series was also provided with edge spacers and retention bands.

150. The Current Mantis DW Series, Current Mantis M5 Series, Current Mantis 536-8 Series, Prior Mantis DW Series, Prior Mantis 536-8 Series, and Prior Mantis M5 Series will be referred to collectively as the “Mantis® wastewater systems.”

Notice to Eljen

151. Before the '863 Patent issued, after becoming aware of the Mantis® wastewater system, Potts contacted Mark Bram (“Bram”), President of Eljen, concerning Geomatrix’s pending patent rights, via telephone, in person meeting and mail.

152. Despite Geomatrix’s notice to Eljen concerning Geomatrix’s pending patent rights, Eljen continued to make, use, sell and offer to sell its Mantis® wastewater system.

153. Eljen, through its counsel, alerted Geomatrix of various purported prior art references during the pendency of the application that ultimately became the '863 Patent.

154. Potts and Geomatrix presented those references to the U.S. Patent and Trademark Office (“USPTO”) for review and consideration in connection with the application that ultimately became the '863 Patent. The USPTO considered the references, and issued the '863 Patent over the references.

155. After the '863 Patent issued, on or about November 4, 2015, Potts contacted Eljen President Bram via email to discuss Eljen’s infringement of the '863 Patent.

156. On January 7, 2016, Brian Moran (“Moran”) of Robinson + Cole responded to Potts that he had been retained to defend against Geomatrix’s claims that Eljen’s Mantis wastewater system infringes one or more claims of the ‘863 Patent, thereby acknowledging actual notice of the ‘863 Patent.

157. On January 28, 2016, R. Cornelius Danaher, Jr. (“Danaher”) from the Danaher Lagnese, PC firm responded to Moran’s claims of non-infringement and invalidity, including pointing out that the prior art cited in Moran’s January 7th letter had been considered by the USPTO.

158. Additional correspondence was exchanged between the parties concerning the ‘863 Patent on February 10, 2016, and February 19, 2016.

159. After the exchange of additional correspondence directly between Bram and Potts, on May 16, 2016, Geomatrix and Potts filed suit against Eljen alleging infringement of the ‘863 Patent in this Court (“the 2016 Lawsuit”).

160. On June 9, 2016 before Eljen answered the complaint, Potts informed Bram that he and Geomatrix intended to proceed with additional patent activity at the USPTO, but to “minimize cost and inconvenience for all,” would be dismissing the lawsuit without prejudice at that time.

161. In addition, the June 9, 2016 letter reserved “all rights to file another Patent litigation suit in order to protect our intellectual property.”

162. Further, the June 9, 2016 letter also stated that Eljen was not permitted to use Geomatrix’s intellectual property for any of its products and concluded with the directive to “stop infringement immediately.”

163. On June 27, 2016, Geomatrix filed a motion to dismiss the 2016 Lawsuit without prejudice. The motion was granted on June 28, 2016.

164. After the 2016 Lawsuit was dismissed without prejudice, Potts and Geomatrix continued to pursue additional patent coverage. Such efforts yielded the '271, '875, and the '278 Patents.

165. On information and belief, on April 5, 2018, Eljen through its counsel, submitted purported prior art references to the USPTO during the pendency of the application that ultimately became the '875 Patent. The USPTO considered the references, and issued the '875 Patent over the references.

166. As with the '863 Patent, Geomatrix put Eljen on notice concerning Geomatrix's infringement allegations regarding each of the '271, '875 and the '278 patents. Such notice occurred shortly after each of the Asserted Patents issued, via letters sent by either Potts or counsel for Geomatrix.

167. Eljen acknowledged and responded to Potts and Geomatrix's allegations, thus confirming that Eljen was on actual notice of Geomatrix's claims of infringement with respect to each of the Asserted Patents.

168. The filing and notice of this action also provides actual notice to Eljen of the Asserted Patents.

169. Eljen has actual notice of the Asserted Patents.

COUNT I – INFRINGEMENT OF THE '863 PATENT
(Prior Mantis 536-8, Prior Mantis DW Series, and Prior Mantis M5 Series)

170. Geomatrix reasserts and incorporates the allegations contained in the paragraphs above.

171. Eljen has directly infringed and is directly infringing the '863 Patent by making, using, offering for sale, and selling, in the United States, its Mantis® wastewater systems. Upon information and belief, Eljen has individually and jointly engaged in acts of direct infringement by itself and through agents in combination.

172. Based on the information shown in Exhibits **J-O**, and Exhibits **P-O** the Prior Mantis 536-8 Series, the Prior Mantis DW Series, and the Prior Mantis M5 Series infringe several exemplary claims of the '863 Patent.

173. **Exhibit P** demonstrates that the Prior Mantis M5.1 infringes claims 1, 8, 12, 18, 19, 21, 22, 24, 26, and 28 of the '863 Patent. Exhibit P also demonstrates that the Prior Mantis M5.2 infringes claims 1, 8, 10, 12, 14, 15, 18, 19, 21, 22, 24, 26, and 28 of the '863 Patent.

174. **Exhibit Q** shows that the Prior Mantis DW Series infringe claims 1, 8, 12, 14, 15, 18, 19, 21, 22, 24, 25, 26, and 28 of the '863 Patent.

175. **Exhibit R** shows that the Prior Mantis 536-8 Series infringes claims 1, 8, 10, 12, 14, 15, 18, 19, 21, 22, 24, 25, 26, and 28 of the '863 Patent.

176. Eljen's acts are acts of infringement in violation of the United States patent laws, including, but not limited to, 35 U.S.C. § 271 *et seq.*

177. On information and belief, Eljen has continued, including continuing after notice, with infringing use, making offering for sale and sales of infringing wastewater systems, including the Mantis® branded wastewater systems.

178. Eljen's aforesaid infringement has been and continues to be willful and deliberate and ongoing.

179. Geomatrix has been damaged and continues to suffer irreparable injury as a result of Eljen's improper actions. Infringement of the '863 patent by Eljen will continue unless and until enjoined by this Court.

180. Geomatrix has no adequate remedy at law, and is, therefore, entitled to a permanent injunction prohibiting further infringement by Eljen.

181. Geomatrix is entitled to damages for past infringement, including its lost profits or an amount not less than a reasonable royalty.

COUNT II – INFRINGEMENT OF THE '863 PATENT
(Current Mantis 536-8 Series, Current Mantis DW Series, and Current Mantis M5 Series)

182. Geomatrix reasserts and incorporates the allegations contained in the paragraphs above.

183. Eljen has directly infringed and is directly infringing the '863 Patent by making, using, offering for sale, and selling, in the United States, its Current Connecticut Mantis Products and Current Mantis M5 Series Products. Upon information and belief, Eljen has individually and jointly engaged in acts of direct infringement by itself and through agents in combination.

184. Based on the information shown in Exhibits **F-I.2**, and **S-T**, the Current Mantis 536-8 Series, the Current Mantis DW Series and Current Mantis M5 Series infringe several exemplary claims of the '863 patent.

185. **Exhibit S** demonstrates that the Current Mantis 536-8 Series infringes claims 1, 8, 10, 12, 14, 15, 18, 19, 21, 22, 24, 25, 26, and 28 of the '863 Patent.

186. **Exhibit T** demonstrates that the Current Mantis M5.1 infringes claims 1, 8, 12, 18, 19, 21, 22, 24, 26 and 28 of the '863 Patent. Exhibit T also demonstrates that

the Current Mantis M5.2 infringes claims 1, 8, 10, 12, 14, 15, 18, 19, 21, 22, 24, 26, and 28 of the '863 Patent.

187. **Exhibit U** demonstrates that the Current Mantis DW Series infringe claims 1, 8, 12, 14, 15, 18, 19, 21, 22, 24, 25, 26 and 28 of the '863 Patent.

188. Eljen's acts are acts of infringement in violation of the United States patent laws, including, but not limited to, 35 U.S.C. § 271 *et seq.*

189. On information and belief, Eljen has continued, including continuing after notice, with infringing use, making offering for sale and sales of infringing wastewater systems, including the Current Connecticut Mantis and Current Mantis M5 Series wastewater systems.

190. Eljen's aforesaid infringement has been and continues to be willful and deliberate and ongoing.

191. Geomatrix has been damaged and continues to suffer damages and irreparable injury as a result of Eljen's improper actions. Infringement of the '863 patent by Eljen will continue unless and until enjoined by this Court.

192. Geomatrix has no adequate remedy at law, and is, therefore, entitled to a permanent injunction prohibiting further infringement by Eljen. Geomatrix has been damaged by past activities of Eljen and is entitled to damages for past infringement, including its lost profits or an amount not less than a reasonable royalty.

COUNT III – INFRINGEMENT OF THE '271 PATENT
(Prior Mantis 536-8 Series, Prior Mantis DW Series, and Prior Mantis M5 Series)

193. Geomatrix reasserts and incorporates the allegations contained in the paragraphs above.

194. Eljen has directly infringed and is directly infringing the '271 Patent by making, using, offering for sale, and selling, in the United States, its Prior Mantis 536-8 Series, Prior DW Series, and Prior Mantis M5 Series. Upon information and belief, Eljen has individually and jointly engaged in acts of direct infringement by itself and through agents in combination.

195. Based on the information shown in Exhibits **J-O**, and **V-X**, Prior Mantis 536-8 Series, Prior Mantis DW Series, and Prior Mantis M5 Series infringe several exemplary claims of the '271 patent.

196. **Exhibit V** demonstrates that the Prior Mantis 536-8 Series infringes claims 1-3, 5, 8-12, 15, and 16 of the '271 Patent.

197. **Exhibit W** demonstrates that the Prior Mantis M5 Series infringe claims 1-3, 5, 8-12, and 15 of the '271 Patent.

198. **Exhibit X** demonstrates that the Prior Mantis DW Series infringe claims 1-3, 5, 8-12, 15, and 16 of the '271 Patent.

199. Eljen's acts are acts of infringement in violation of the United States patent laws, including, but not limited to, 35 U.S.C. § 271 *et seq.*

200. On information and belief, Eljen has continued, including continuing after notice, with infringing use, making offering for sale and sales of infringing wastewater systems, including the Prior Mantis 536-8, Prior Mantis M5, and Prior Mantis DW Series Mantis® branded wastewater systems.

201. Eljen's aforesaid infringement has been and continues to be willful and deliberate and ongoing.

202. Geomatrix has been damaged and continues to suffer damages and irreparable injury as a result of Eljen's improper actions. Infringement of the '271 patent by Eljen will continue unless and until enjoined by this Court.

203. Geomatrix has no adequate remedy at law, and is, therefore, entitled to a permanent injunction prohibiting further infringement by Eljen.

204. Geomatrix has been damaged by past activities of Eljen and is entitled to damages for past infringement, including its lost profits or an amount not less than a reasonable royalty.

COUNT IV – INFRINGEMENT OF THE '271 PATENT
(Current Mantis 536-8 Series, Current Mantis DW Series, and Current Mantis M5 Series)

205. Geomatrix reasserts and incorporates the allegations contained in the paragraphs above.

206. Eljen has directly infringed and is directly infringing the '271 Patent by making, using, offering for sale, and selling, in the United States, its Current Mantis 536-8 Series, Current Mantis DW Series, and Current Mantis M5 Series. Upon information and belief, Eljen has individually and jointly engaged in acts of direct infringement by itself and through agents in combination.

207. Based on the information shown in Exhibits **F-I-2** and **Y-AA**, the Current Mantis 536-8 Series, Current Mantis DW Series, and Current Mantis M5 Series infringe several exemplary claims of the '271 patent.

208. **Exhibit Y** demonstrates that the Current Mantis M5 Series infringe claims 1-3, 5, 8-12, and 15 of the '271 Patent.

209. **Exhibit Z** demonstrates that the Current Mantis 536-8 Series infringes claims 1-3, 5, 8-12, 15 and 16 of the '271 Patent.

210. **Exhibit AA** demonstrates that the Current Mantis DW Series infringe claims 1-3, 5, 8-12, 15 and 16 of the '271 Patent.

211. Eljen's acts are acts of infringement in violation of the United States patent laws, including, but not limited to, 35 U.S.C. § 271 *et seq.*

212. On information and belief, Eljen has continued, including continuing after notice, with infringing use, making offering for sale and sales of infringing wastewater systems, including the Current Connecticut Mantis Products and the Current Mantis M5 Series.

213. Eljen's aforesaid infringement has been and continues to be willful and deliberate and ongoing.

214. Geomatrix has been damaged and continues to suffer damages and irreparable injury as a result of Eljen's improper actions. Infringement of the '271 patent by Eljen will continue unless and until enjoined by this Court.

215. Geomatrix has no adequate remedy at law, and is, therefore, entitled to a permanent injunction prohibiting further infringement by Eljen.

216. Geomatrix has been damaged by past activities of Eljen and is entitled to damages for past infringement, including its lost profits or an amount not less than a reasonable royalty.

COUNT V – INFRINGEMENT OF THE '875 PATENT
(Prior Mantis 536-8 Series, DW Series, and Prior Mantis M5 Series)

217. Geomatrix reasserts and incorporates the allegations contained in the paragraphs above.

218. Eljen has directly infringed and is directly infringing the '875 Patent by making, using, offering for sale, and selling, in the United States, its Prior Mantis 536-8 Series, Prior Mantis DW Series, and Prior Mantis M5 Series. Upon information and belief, Eljen has individually and jointly engaged in acts of direct infringement by itself and through agents in combination.

219. Based on the information shown in Exhibits **J-O**, and **BB-DD**, the Prior Mantis 536-8 Series, Prior Mantis DW Series, and the Prior Mantis M5 Series infringe several exemplary claims of the '875 Patent.

220. Exhibit **BB** demonstrates that the Prior Mantis 536-8 Series infringes claims 1, 2, 5, 7, 8, 11-13 of the '875 Patent.

221. Exhibit **CC** demonstrates that the Prior Mantis M5 Series infringe claims 1, 2, 5, 7, 8, and 11-13 of the '875 Patent.

222. Exhibit **DD** demonstrates that the Prior Mantis DW Series infringe claims 1, 2, 5, 7, 8, 11-13 of the '875 Patent.

223. Eljen's acts are acts of infringement in violation of the United States patent laws, including, but not limited to, 35 U.S.C. § 271 *et seq.*

224. On information and belief, Eljen has continued, including continuing after notice, with infringing use, making, offering for sale, and sales of infringing wastewater systems, including the Prior Mantis 536-8 Series, Prior Mantis M5 Series, and Prior Mantis DW Series wastewater systems.

225. Eljen's aforesaid infringement has been and continues to be willful and deliberate and ongoing.

226. Geomatrix has been damaged and continues to suffer damages and irreparable injury as a result of Eljen's improper actions. Infringement of the '875 Patent by Eljen will continue unless and until enjoined by this Court.

227. Geomatrix has no adequate remedy at law, and is, therefore, entitled to a permanent injunction prohibiting further infringement by Eljen.

228. Geomatrix has been damaged by past activities of Eljen and is entitled to damages for past infringement, including its lost profits or an amount not less than a reasonable royalty.

COUNT VI – INFRINGEMENT OF THE '278 PATENT
(Current Mantis 536-8 Series, Current Mantis DW Series, and Current Mantis M5 Series)

229. Geomatrix reasserts and incorporates the allegations contained in the paragraphs above.

230. Eljen has directly infringed and is directly infringing the '278 Patent by making, using, offering for sale, and selling, in the United States, its Current Mantis 536-8 Series, Current Mantis DW Series, and Current Mantis M5 Series. Upon information and belief, Eljen has individually and jointly engaged in acts of direct infringement by itself and through agents in combination.

231. Based on the information shown in Exhibits **F-I.2**, and **EE-GG**, the Current Mantis 536-8 Series, Current Mantis M5 Series, and the Current Mantis DW Series infringe several exemplary claims of the '278 Patent.

232. Exhibit **EE** demonstrates that the Current Mantis 536-8 Series infringes claims 22, 23, and 33.

233. Exhibit **FF** demonstrates that the Current Mantis DW Series infringe claims 22, 23, and 33.

234. Exhibit **GG** demonstrates that the Current Mantis M5 Series infringe claims 22, 23, and 33.

235. Eljen's acts are acts of infringement in violation of the United States patent laws, including, but not limited to, 35 U.S.C. § 271 *et seq.*

236. On information and belief, Eljen has continued, including continuing after notice, with infringing use, making, offering for sale and sales of infringing wastewater systems, including the Current Mantis 536-8 Series, Current Mantis M5 Series and Current Mantis DW Series wastewater systems.

237. Eljen's aforesaid infringement has been and continues to be willful and deliberate and ongoing.

238. Geomatrix has been damaged and continues to suffer damages and irreparable injury as a result of Eljen's improper actions. Infringement of the '278 Patent by Eljen will continue unless and until enjoined by this Court.

239. Geomatrix has no adequate remedy at law, and is, therefore, entitled to a permanent injunction prohibiting further infringement by Eljen.

240. Geomatrix has been damaged by past activities of Eljen and is entitled to damages for past infringement, including its lost profits or an amount not less than a reasonable royalty.

COUNT VII – INFRINGEMENT OF THE '278 PATENT
(Prior Mantis 536-8 Series, DW Series, and Prior Mantis M5 Series)

241. Geomatrix reasserts and incorporates the allegations contained in the paragraphs above.

242. Eljen has directly infringed and is directly infringing the '278 Patent by making, using, offering for sale, and selling, in the United States, its Prior Mantis 536-8 Series, Prior Mantis DW Series, and Prior Mantis M5 Series. Upon information and belief, Eljen has individually and jointly engaged in acts of direct infringement by itself and through agents in combination.

243. Based on the information shown in Exhibits **J-O**, and **HH-JJ**, the Prior Mantis 536-8 Series, Prior Mantis M5 Series, and the Prior Mantis DW Series infringe several claims of the '278 Patent.

244. Exhibit **HH** demonstrates that the Prior Mantis 536-8 Series infringes claims 1-4, 6, 11, 12, 14, 17, 22, 23, and 33 of the '278 Patent.

245. Exhibit **II** demonstrates that the Prior Mantis M5 Series infringe claims 1-4, 6, 11, 12, 14, 17, 22, 23, and 33 of the '278 Patent.

246. Exhibit **JJ** demonstrates that the Prior Mantis DW Series infringe claims 1-4, 6, 11, 12, 14, 22, 23, and 33 of the '278 Patent.

247. Eljen's acts are acts of infringement in violation of the United States patent laws, including, but not limited to, 35 U.S.C. § 271 *et seq.*

248. On information and belief, Eljen has continued, including continuing after notice, with infringing use, making, offering for sale and sales of infringing wastewater systems, including the Prior Mantis 536-8 Series, Prior Mantis M5 Series and Prior Mantis DW Series wastewater systems.

249. Eljen's aforesaid infringement has been and continues to be willful and deliberate and ongoing.

250. Geomatrix has been damaged and continues to suffer damages and irreparable injury as a result of Eljen's improper actions. Infringement of the '278 Patent by Eljen will continue unless and until enjoined by this Court.

251. Geomatrix has no adequate remedy at law, and is, therefore, entitled to a permanent injunction prohibiting further infringement by Eljen.

252. Geomatrix has been damaged by past activities of Eljen and is entitled to damages for past infringement, including its lost profits or an amount not less than a reasonable royalty.

COUNT VIII – CONTRIBUTORY INFRINGEMENT OF THE '271 PATENT
(Mantis® wastewater systems)

253. As described above, Eljen directly infringes numerous claims of the '271 Patent by designing, manufacturing, using, selling, and offering to sell the Mantis® wastewater systems. Claim 9 of the '271 Patent also covers the Mantis® wastewater systems as installed and/or used. Eljen instructs installers, customers, partners, resellers, affiliates, and other parties (hereinafter "others") to install Mantis® wastewater systems in a manner covered by claim 9 of the '271 Patent. Therefore, Eljen contributes to the infringement of the '271 Patent by not only providing the Mantis® wastewater systems, but also instructing others to infringe the '271 Patent.

254. Claim 9 recites: "[t]he wastewater treatment system of claim 1 further comprising." As shown in Exhibits V-AA, Eljen directly infringes claim 1 and 9 of the '271 Patent by designing, manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

255. Claim 9 also requires "a first treatment channel, the first treatment channel positioned between the first and second infiltrative channels," and "a second treatment

channel, the second treatment channel positioned between the second and third infiltrative channels.” Finally, claim 9 requires “wherein at least a portion of the upper boundary of each of the three infiltrative channels and an upper boundary of each of the two treatment channels is not directly underlying any section of the wastewater channel above the particular channel.” The voids between the infiltrative channels in the Mantis® wastewater systems are treatment channels, and Eljen instructs that these voids be filled with treatment material, such as sand, to facilitate wastewater treatment. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. As offered and sold, and installed and used by others according to Eljen’s instructions, the Mantis® wastewater systems have the claimed first and second treatment channels and satisfy the requirement that at least a portion of the upper boundary of each of the infiltrative channels and treatment channels is not directly underlying any section of the wastewater channel above the particular channel. Thus, others that install and use the Mantis® wastewater systems according to Eljen’s instructions are also direct infringers of claim 9, and Eljen contributes to that infringement.

256. Upon information and belief, others follow Eljen’s installation instructions to install the Mantis® wastewater systems in a manner that directly infringes claim 9. See, e.g., paragraph 130, and picture below:



257. The Mantis® wastewater systems are components that constitute a material part of the invention in claim 9 of the '271 Patent because the Mantis® wastewater systems are especially designed to treat wastewater in a manner that directly infringes independent claim 1 and claim 9 of the '271 Patent, which depends from claim 1.

258. As described above, on or around the date the '271 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the '271 Patent. Therefore, Eljen had and continues to have knowledge of the '271 Patent, and knowledge that its Mantis® wastewater systems are components that constitute a material part of the invention in claim 9 of the '271 Patent.

259. Each of the components (Mantis® wastewater systems) is made, promoted and sold for use in treating wastewater, which is use covered by the '271 Patent. Eljen's website provides no other method of using the Mantis® wastewater systems. Thus, Eljen sells and offers to sell the components knowing that such components are especially made or especially adapted for use in infringement of the

'271 Patent, and that such components are not staple articles or commodities of commerce suitable for substantial non-infringing uses.

260. Eljen had and continues to have knowledge, that its Mantis® wastewater systems are components especially made or adapted for use in infringement of claim 9 of the '271 Patent, and that the Mantis® wastewater systems are not staple articles or commodities of commerce suitable for substantial non-infringing uses, and nevertheless instructs others to install and use the Mantis® wastewater systems in a manner that directly infringes claim 9. Further, Eljen has knowledge that others install and use the Mantis® wastewater systems in a manner that directly infringes claim 9. See e.g., <https://www.picuki.com/tag/eljenmantis>; <https://www.instagram.com/eljencorp/?hl=en> (upon information and belief, Eljen posts photos on its social medial accounts showing others filling treatment channels with treatment materials, such as sand, to facilitate wastewater treatment).

261. Therefore, Eljen is liable for contributory infringement of claim 9 of the '271 Patent under 35 U.S.C. § 271(c).

COUNT IX – INDUCED INFRINGEMENT OF THE '271 PATENT
(Mantis® wastewater systems)

262. As described above, Eljen directly infringes numerous claims of the '271 Patent by designing, manufacturing, using, selling, and offering to sell the Mantis® wastewater systems. Claim 9 of the '271 Patent also covers the Mantis® wastewater systems as installed and/or used. As discussed above, Eljen had knowledge of the '271 Patent, and the scope of claim 9. With that knowledge, Eljen instructs and induces its installers, customers, partners, resellers, affiliates, and other parties (hereinafter “others”) to install Mantis® wastewater systems in a manner that directly infringes claim

9 of the '271 Patent. Eljen acts with the requisite intent, as described above and below. Therefore, Eljen induces infringement of the '271 Patent by not only providing the Mantis® wastewater systems, but also by inducing others to use the Mantis® wastewater systems in a manner that directly infringes claim 9 of the '271 Patent.

263. Claim 9 recites: “[t]he wastewater treatment system of claim 1 further comprising.” As shown in Exhibits V-AA, Eljen directly infringes claim 1 and 9 of the '271 Patent by designing, manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

264. Claim 9 also requires “a first treatment channel, the first treatment channel positioned between the first and second infiltrative channels,” and “a second treatment channel, the second treatment channel positioned between the second and third infiltrative channels.” Finally, claim 9 requires “wherein at least a portion of the upper boundary of each of the three infiltrative channels and an upper boundary of each of the two treatment channels is not directly underlying any section of the wastewater channel above the particular channel.” The voids between the infiltrative channels in the Mantis® wastewater systems are treatment channels, and Eljen instructs and induces others to fill the voids with treatment material, such as sand, to facilitate wastewater treatment. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. As offered and sold, and installed and used by others according to Eljen’s instructions, the Mantis® wastewater systems have the claimed first and second treatment channels and satisfy the requirement that at least a portion of the upper boundary of each of the infiltrative channels and treatment channels

is not directly underlying any section of the wastewater channel above the particular channel.

265. As discussed in paragraphs 151-155 and 165-167 above, on or around the date the '271 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the '271 Patent. Eljen's several attempts to invalidate patents in this family, either by providing alleged invalidating prior art to Geomatrix, or by submitting alleged invalidating prior art directly to the USPTO, all failed when the USPTO issued the patents over one or more of those prior art references. Thus Eljen instructed and induced, and continues to instruct and induce, its customers to engage in infringement with knowledge of the scope of the patent claims, and with knowledge that the USPTO issued the patents over alleged prior art that Eljen unsuccessfully claimed to be invalidating. Eljen knew or should have known that the patents were not just entitled to the statutory presumption of validity but were issued over the alleged prior art that Eljen claimed to be invalidating.

266. Therefore, Eljen had and continues to have knowledge of the '271 Patent, and the scope of claim 9. With that knowledge, Eljen nevertheless instructed and induced, and continues to instruct and induce, others to install and use the Mantis® wastewater systems according to Eljen's installation manuals and other customer-facing materials in a manner that directly infringes claim 9.

267. Based on the foregoing, Eljen provides the installation manuals and other customer-facing materials with knowledge of the scope of, and with the specific intent to infringe, claim 9. Upon information and belief, due to Eljen's inducement, others install and use the Mantis® wastewater systems according to Eljen's installation manuals and

other customer-facing materials in a manner that directly infringes claim 9. See, e.g., picture at paragraphs 130 and 256; See also, paragraph 260.

268. Therefore, Eljen is liable for induced infringement of claim 9 of the '271 Patent under 35 U.S.C. § 271(b).

COUNT X – CONTRIBUTORY INFRINGEMENT OF THE '875 PATENT
(Mantis® wastewater systems)

269. As described above, Eljen directly infringes numerous claims of the '875 Patent by designing, manufacturing, using, selling, and offering to sell the Mantis® wastewater systems. Claim 11 of the '875 Patent also covers the Mantis® wastewater systems as installed and/or used. Eljen instructs installers, customers, partners, resellers, affiliates, and other parties (hereinafter “others”) to install Mantis® wastewater systems in a manner covered by claim 11 of the '875 Patent. Therefore, Eljen contributes to the infringement of the '875 Patent by not only providing the Mantis® wastewater systems, but also instructing others to infringe the '875 Patent.

270. Claim 11 recites: “[t]he wastewater treatment system of claim 1 further comprising.” As shown in Exhibits BB to DD, Eljen directly infringes claim 1 and 11 of the '875 Patent by designing, manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

271. Claim 11 also requires “a first treatment channel, the first treatment channel positioned between the first and second infiltrative channels,” and “a second treatment channel, the second treatment channel positioned between the second and third infiltrative channels.” Finally, claim 11 requires “wherein at least a portion of the top of each of the three infiltrative channels and a top of each of the two treatment channels is not directly underlying any section of the dosing pipe above the particular channel.”

The voids between the infiltrative channels in the Mantis® wastewater systems are treatment channels, and Eljen instructs that these voids be filled with treatment material, such as sand, to facilitate wastewater treatment. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. As offered and sold, and installed and used by others according to Eljen's instructions, the Mantis® wastewater systems have the claimed first and second treatment channels and satisfy the requirement that at least a portion of the top of each of the infiltrative channels and treatment channels is not directly underlying any section of the dosing pipe above the particular channel. Thus, others that install and use the Mantis® wastewater systems according to Eljen's instructions are also direct infringers of claim 11, and Eljen contributes to that infringement.

272. Upon information and belief, others follow Eljen's installation instructions to install the Mantis® wastewater systems in a manner that directly infringes claim 11. See, e.g., picture at paragraphs 130 and 256 above.

273. The Mantis® wastewater systems are components that constitute a material part of the invention in claim 11 of the '875 Patent because the Mantis® wastewater systems are especially designed to treat wastewater in a manner that directly infringes independent claim 1 and claim 11 of the '875 Patent, which depends from claim 1.

274. As described above, on or around the date the '875 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the '875 Patent. Eljen also unsuccessfully tried hinder the '875 Patent from issuing by submitting purported prior art references to the USPTO. And, the USPTO issued the '875 Patent over the references.

Therefore, Eljen had and continues to have knowledge of the '875 Patent, and knowledge that its Mantis® wastewater systems are components that constitute a material part of the invention in claim 11 of the '875 Patent.

275. Each of the components (Mantis® wastewater systems) is made, promoted and sold for use in treating wastewater, which is use covered by the '875 Patent. Eljen's website provides no other method of using the Mantis® wastewater systems. Thus, Eljen sells and offers to sell the components knowing that such components are especially made or especially adapted for use in infringement of the '875 Patent, and that such components are not staple articles or commodities of commerce suitable for substantial non-infringing uses.

276. Eljen had and continues to have knowledge, that its Mantis® wastewater systems are components especially made or adapted for use in infringement of claim 11 of the '875 Patent, and that the Mantis® wastewater systems are not staple articles or commodities of commerce suitable for substantial non-infringing uses, and nevertheless instructs others to install and use the systems in a manner that directly infringes claim 11. Further, Eljen has knowledge that others install and use the systems in a manner that directly infringes claim 11. See e.g., <https://www.picuki.com/tag/eljenmantis>; <https://www.instagram.com/eljencorp/?hl=en> (upon information and belief, Eljen posts photos on its social medial accounts showing others filling treatment channels with treatment materials, such as sand, to facilitate wastewater treatment).

277. Therefore, Eljen is liable for contributory infringement of claim 11 of the '875 Patent under 35 U.S.C. § 271(c).

COUNT XI – INDUCED INFRINGEMENT OF THE '875 PATENT
(Mantis® wastewater systems)

278. As described above, Eljen directly infringes numerous claims of the '875 Patent by designing, manufacturing, using, selling, and offering to sell the Mantis® wastewater systems. Claim 11 of the '875 Patent also covers the Mantis® wastewater systems as installed and/or used. As discussed above, Eljen had knowledge of the '875 Patent, and the scope of claim 11. With that knowledge, Eljen instructs and induces its installers, customers, partners, resellers, affiliates, and other parties (hereinafter "others") to install Mantis® wastewater systems in a manner that directly infringes claim 11 of the '875 Patent. Eljen acts with the requisite intent, as described above and below. Therefore, Eljen induces infringement of the '875 Patent by not only providing the Mantis® wastewater systems, but also by inducing others to use the Mantis® wastewater systems in a manner that directly infringes claim 11 of the '875 Patent.

279. Claim 11 recites: "[t]he wastewater treatment system of claim 1 further comprising." As shown in Exhibits BB to DD, Eljen directly infringes claim 1 and 11 of the '875 Patent by designing, manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

280. Claim 11 also requires "a first treatment channel, the first treatment channel positioned between the first and second infiltrative channels," and "a second treatment channel, the second treatment channel positioned between the second and third infiltrative channels." Finally, claim 11 requires "wherein at least a portion of the top of each of the three infiltrative channels and a top of each of the two treatment channels is not directly underlying any section of the dosing pipe above the particular channel." The voids between the infiltrative channels in the Mantis® wastewater systems are treatment channels, and Eljen instructs and induces others to fill the voids with

treatment material, such as sand, to facilitate wastewater treatment. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. As offered and sold, and installed and used by others according to Eljen's instructions, the Mantis® wastewater systems have the claimed first and second treatment channels and satisfy the requirement that at least a portion of the top of each of the infiltrative channels and treatment channels is not directly underlying any section of the dosing pipe above the particular channel.

281. As discussed in paragraphs 151-155 and 165-167 above, on or around the date the '875 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the '875 Patent. Eljen's several attempts to invalidate patents in this family, either by providing alleged invalidating prior art to Geomatrix, or by submitting alleged invalidating prior art directly to the USPTO, all failed when the USPTO issued the patents over one or more of those prior art references. Thus Eljen instructed and induced, and continues to instruct and induce, its customers to engage in infringement with knowledge of the scope of the patent claims, and with knowledge that the USPTO issued the patents over alleged prior art that Eljen unsuccessfully claimed to be invalidating. Eljen knew or should have known that the patents were not just entitled to the statutory presumption of validity but were issued over the alleged prior art that Eljen claimed to be invalidating.

282. Therefore, Eljen had and continues to have knowledge of the '875 Patent, and the scope of claim 11. With that knowledge, Eljen nevertheless instructed and induced, and continues to instruct and induce, others to install and use the Mantis®

wastewater systems according to Eljen's installation manuals and other customer-facing materials in a manner that directly infringes claim 11.

283. Based on the foregoing, Eljen provides the installation manuals and other customer-facing materials with knowledge of the scope of, and with the specific intent to infringe, claim 11. Upon information and belief, due to Eljen's inducement, others install and use the Mantis® wastewater systems according to Eljen's installation manuals and other customer facing materials in a manner that directly infringes claim 11. See, e.g., pictures at paragraphs 130 and 256; See also, paragraph 276.

284. Therefore, Eljen is liable for induced infringement of claim 11 of the '875 Patent under 35 U.S.C. § 271(b).

COUNT XII – CONTRIBUTORY INFRINGEMENT OF THE '278 PATENT
(Mantis® wastewater systems)

285. As described above, Eljen directly infringes numerous claims of the '278 Patent by designing, manufacturing, using, selling, and offering to sell the Mantis® wastewater systems. Independent claim 22 of the '278 Patent also covers the Mantis® wastewater systems as installed and/or used. Eljen instructs installers, customers, partners, resellers, affiliates, and other parties (hereinafter "others") to install Mantis® wastewater systems in a manner covered by claim 22 of the '278 Patent. Therefore, Eljen contributes to the infringement of the '278 Patent by not only providing the Mantis® wastewater systems, but also instructing others to infringe the '278 Patent.

286. Claim 22 recites: "[a] wastewater system comprising." As shown in Exhibits EE to JJ, Eljen satisfies most of the elements of claim 22 of the '278 Patent by designing, manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

287. Claim 22 also requires “wherein granular material is positioned between infiltrative sides of adjacent high aspect ratio channels.” As offered and sold by Eljen, the Mantis® wastewater systems have high aspect ratio channels with infiltrative sides. And, Eljen instructs others to position granular material between infiltrative sides of adjacent high aspect ratio channels. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. Therefore, as installed and used by others according to Eljen’s instructions, the Mantis® wastewater systems satisfy all the requirements of claim 22. Thus, others that install and use the Mantis® wastewater systems according to Eljen’s instructions are direct infringers of claim 22, and Eljen contributes to that infringement.

288. Upon information and belief, others follow Eljen’s installation instructions to install the Mantis® wastewater systems in a manner that directly infringes claim 22. See, e.g., pictures at paragraphs 130 and 256 above.

289. The Mantis® wastewater systems are components that constitute a material part of the invention in claim 22 of the ‘278 Patent because the Mantis® wastewater systems are especially designed to treat wastewater in a manner that directly infringes claim 22 of the ‘278 Patent.

290. As described above, on or around the date the ‘278 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the ‘278 Patent. Therefore, Eljen had and continues to have knowledge of the ‘278 Patent, and knowledge that its Mantis® wastewater systems are components that constitute a material part of the invention in claim 22 of the ‘278 Patent.

291. Each of the components (Mantis® wastewater systems) is made, promoted and sold for use in treating wastewater, which is use covered by the '278 Patent. Eljen's website provides no other method of using the Mantis® wastewater systems. Thus, Eljen sells and offers to sell the components knowing that such components are especially made or especially adapted for use in infringement of the '278 Patent, and that such components are not staple articles or commodities of commerce suitable for substantial non-infringing uses.

292. Eljen had and continues to have knowledge that its Mantis® wastewater systems are components especially made or adapted for use in infringement of claim 22 of the '278 Patent, and that the Mantis® wastewater systems are not staple articles or commodities of commerce suitable for substantial non-infringing uses, and nevertheless instructs others to install and use the Mantis® wastewater systems in a manner that directly infringes claim 22. Further, Eljen has knowledge that others install and use the Mantis® wastewater systems in a manner that directly infringes claim 22. See *e.g.*, <https://www.picuki.com/tag/eljenmantis>; <https://www.instagram.com/eljencorp/?hl=en> (upon information and belief, Eljen posts photos on its social medial accounts showing others positioning granular material between infiltrative sides of adjacent high aspect ratio channels, to facilitate wastewater treatment).

293. Therefore, Eljen is liable for contributory infringement of claim 22 of the '278 Patent under 35 U.S.C. § 271(c).

COUNT XIII – INDUCED INFRINGEMENT OF THE '278 PATENT
(Mantis® wastewater systems)

294. As described above, Eljen directly infringes numerous claims of the '278 Patent by designing, manufacturing, using, selling, and offering to sell the Mantis®

wastewater systems. Independent claim 22 of the '278 Patent also covers the Mantis® wastewater systems as installed and/or used. As discussed above, Eljen had knowledge of the '278 Patent, and the scope of claim 22. With that knowledge, Eljen instructs and induces its installers, customers, partners, resellers, affiliates, and other parties (hereinafter "others") to install Mantis® wastewater systems in a manner that directly infringes claim 22 of the '278 Patent. Eljen acts with the requisite intent, as described above and below. Therefore, Eljen induces infringement of the '278 Patent by not only providing the Mantis® wastewater systems, but also by inducing others to use the Mantis® wastewater systems in a manner that directly infringes claim 22 of the '278 Patent.

295. Claim 22 recites: "[a] wastewater system comprising." As shown in Exhibits EE to JJ, Eljen satisfies most of the elements of claim 22 of the '278 Patent by designing, manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

296. Claim 22 also requires "wherein granular material is positioned between infiltrative sides of adjacent high aspect ratio channels." As offered and sold by Eljen, the Mantis® wastewater systems have high aspect ratio channels with infiltrative sides. And, Eljen instructs and induces others to position granular material between infiltrative sides of adjacent high aspect ratio channels. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. Therefore, as installed and used by others according to Eljen's instructions, the Mantis® wastewater systems satisfy all the requirements of claim 22.

297. As discussed in paragraphs 151-155 and 165-167 above, on or around the date the '278 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the '278 Patent. Eljen's several attempts to invalidate patents in this family, either by providing alleged invalidating prior art to Geomatrix, or by submitting alleged invalidating prior art directly to the USPTO, all failed when the USPTO issued the patents over one or more of those prior art references. Thus Eljen instructed and induced, and continues to instruct and induce, its customers to engage in infringement with knowledge of the scope of the patent claims, and with knowledge that the USPTO issued the patents over alleged prior art that Eljen unsuccessfully claimed to be invalidating. Eljen knew or should have known that the patents were not just entitled to the statutory presumption of validity but were issued over the alleged prior art that Eljen claimed to be invalidating.

298. Therefore, Eljen had and continues to have knowledge of the '278 Patent, and the scope of claim 22. With that knowledge, Eljen nevertheless instructed and induced, and continues to instruct and induce, others to install and use the Mantis® wastewater systems according to Eljen's installation manuals and other customer-facing materials in a manner that directly infringes claim 22.

299. Based on the foregoing, Eljen provides the installation manuals and other customer-facing materials with knowledge of the scope of, and with the specific intent to infringe, claim 22. Upon information and belief, due to Eljen's inducement, others install and use the Mantis® wastewater systems according to Eljen's installation manuals and other customer facing materials in a manner that directly infringes claim 22. *See, e.g.,* pictures at paragraphs 130 and 256; *See also*, paragraph 292.

300. Therefore, Eljen is liable for induced infringement of claim 22 of the '278 Patent under 35 U.S.C. § 271(b).

**COUNT XIV – CONTRIBUTORY INFRINGEMENT OF THE '278 PATENT
(Prior Mantis 536-8, Prior Mantis DW Series, Prior Mantis M5 Series)**

301. As described above, Eljen directly infringes numerous claims of the '278 Patent by designing, manufacturing, using, selling, and offering to sell the Prior Mantis Products. Claim 4 of the '278 Patent also covers the Prior Mantis Products as installed and/or used. Eljen instructs installers, customers, partners, resellers, affiliates, and other parties (hereinafter "others") to install the Prior Mantis Products in a manner covered by claim 4 of the '278 Patent. Therefore, Eljen contributes to the infringement of the '278 Patent by not only providing the Prior Mantis Products, but also instructing others to infringe the '278 Patent.

302. Claim 4 recites: "[t]he wastewater system of claim 1." As shown in Exhibits HH to JJ, Eljen directly infringes claim 1 of the of the '278 Patent by designing, manufacturing, using, selling and offering to sell to others the Prior Mantis Products in Connecticut and elsewhere in the United States.

303. Claim 4 also requires "wherein a granular material is positioned between and above the high aspect ratio channels in the set of high aspect ratio channels." As offered and sold by Eljen, the Prior Mantis Products have the claimed high aspect ratio channels in the set of high aspect ratio channels. And, Eljen instructs others to position granular material between and above the high aspect ratio channels. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10. Thus, others that install and use the Prior Mantis Products according to Eljen's instructions are direct infringers of claim 4, and Eljen contributes that the infringement.

304. Upon information and belief, others follow Eljen's installation instructions to install the Prior Mantis Products in a manner that directly infringes claim 4. See, e.g., pictures at paragraph 130 and 256 above.

305. The Prior Mantis Products are components that constitute a material part of the invention in claim 4 of the '278 Patent because the Mantis® wastewater systems are especially designed to treat wastewater in a manner that directly infringes independent claim 1 and claim 4 of the '278 Patent, which depends from claim 1.

306. As described above, on or around the date the '278 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the '278 Patent. Therefore, Eljen had and continues to have knowledge of the '278 Patent, and knowledge that its Prior Mantis Products are components that constitute a material part of the invention in claim 4 of the '278 Patent.

307. Each of the components (Prior Mantis Products) is made, promoted and sold for use in treating wastewater, which is use covered by the '278 Patent. Eljen's website provides no other method of using the Prior Mantis Products. Thus, Eljen sells and offers to sell the components knowing that such components are especially made or especially adapted for use in infringement of the '278 Patent, and that such components are not staple articles or commodities of commerce suitable for substantial non-infringing uses.

308. Eljen had and continues to have knowledge, that its Prior Mantis Products are components especially made or adapted for use in infringement of claim 4 of the '278 Patent, and that the Prior Mantis Products are not staple articles or commodities of commerce suitable for substantial non-infringing uses, and nevertheless instructs others

to install and use the Prior Mantis Products in a manner that directly infringes claim 4. Further, Eljen has knowledge that others install and use the Prior Mantis Products in a manner that directly infringes claim 4. See e.g., <https://www.picuki.com/tag/eljenmantis>; <https://www.instagram.com/eljencorp/?hl=en> (upon information and belief, Eljen posts photos on its social medial accounts showing others positioning granular material between and above the high aspect ratio channels, to facilitate wastewater treatment).

309. Therefore, Eljen is liable for contributory infringement of claim 4 of the '278 Patent under 35 U.S.C. § 271(c).

**COUNT XV – INDUCED INFRINGEMENT OF THE '278 PATENT
(Prior Mantis 536-8, Prior Mantis DW Series, Prior Mantis M5 Series)**

310. As described above, Eljen directly infringes numerous claims of the '278 Patent by designing, manufacturing, using, selling, and offering to sell the Prior Mantis Products. Claim 4 of the '278 Patent also covers the Prior Mantis Products as installed and/or used. As discussed above, Eljen had knowledge of the '278 Patent, and the scope of claim 4. With that knowledge, Eljen instructs and induces its installers, customers, partners, resellers, affiliates, and other parties (hereinafter "others") to install Prior Mantis Products in a manner that directly infringes claim 4 of the '278 Patent. Eljen acts with the requisite intent, as described above and below. Therefore, Eljen induces infringement of the '278 Patent by not only providing the Prior Mantis Products, but also by inducing others to use the Prior Mantis Products in a manner that directly infringes claim 4 of the '278 Patent.

311. Claim 4 recites: "[t]he wastewater system of claim 1." As shown in Exhibits HH to JJ, Eljen directly infringes claim 1 of the of the '278 Patent by designing,

manufacturing, using, selling and offering to sell to others the Prior Mantis Products in Connecticut and elsewhere in the United States.

312. Claim 4 also requires “wherein a granular material is positioned between and above the high aspect ratio channels in the set of high aspect ratio channels.” As offered and sold by Eljen, the Prior Mantis Products have the claimed high aspect ratio channels in the set of high aspect ratio channels. And, Eljen instructs and induces others to position granular material between and above the high aspect ratio channels. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10. Therefore, as installed and used by others according to Eljen’s instructions, the Prior Mantis Products satisfy all the requirements of claim 4.

313. As discussed in paragraphs 151-155 and 165-167 above, on or around the date the ‘278 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the ‘278 Patent. Eljen’s several attempts to invalidate patents in this family, either by providing alleged invalidating prior art to Geomatrix, or by submitting alleged invalidating prior art directly to the USPTO, all failed when the USPTO issued the patents over one or more of those prior art references. Thus Eljen instructed and induced, and continues to instruct and induce, its customers to engage in infringement with knowledge of the scope of the patent claims, and with knowledge that the USPTO issued the patents over alleged prior art that Eljen unsuccessfully claimed to be invalidating. Eljen knew or should have known that the patents were not just entitled to the statutory presumption of validity but were issued over the alleged prior art that Eljen claimed to be invalidating.

314. Therefore, Eljen had and continues to have knowledge of the '278 Patent, and the scope of claim 4. With that knowledge, Eljen nevertheless instructed and induced, and continues to instruct and induce, others to install and use the Prior Mantis Products according to Eljen's installation manuals and other customer-facing materials in a manner that directly infringes claim 4.

315. Based on the foregoing, Eljen provides the installation manuals and other customer-facing materials with knowledge of the scope of, and with the specific intent to infringe, claim 4. Upon information and belief, due to Eljen's inducement, others install and use the Prior Mantis Products according to Eljen's installation manuals and other customer facing materials in a manner that directly infringes claim 4. *See, e.g.*, pictures at paragraphs 130 and 256; *See also*, paragraph 308.

316. Therefore, Eljen is liable for induced infringement of claim 4 of the '278 Patent under 35 U.S.C. § 271(b).

COUNT XVI – CONTRIBUTORY INFRINGEMENT OF THE '863 PATENT
(Mantis® wastewater systems)

317. As described above, Eljen directly infringes numerous claims of the '863 Patent by designing, manufacturing, using, selling, and offering to sell the Mantis® wastewater systems. Claims 1 and 22 of the '863 Patent also cover the wastewater system as installed and/or used. Eljen instructs installers, customers, partners, resellers, affiliates, and other parties (hereinafter "others") to install Mantis® wastewater systems in a manner covered by claims 1 and 22 of the '863 Patent. Therefore, Eljen contributes to the infringement of the '863 Patent by not only providing the Mantis® wastewater systems, but also instructing others to infringe the '863 Patent.

318. Claim 1 recites: “[a] system for wastewater comprising.” As shown in Exhibits P to U, Eljen directly infringes claim 1 of the ‘863 Patent by designing, manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

319. Claim 1 requires: “where adjacent channels are separated along a majority of their length by two or more inches, the separations comprising sand, or a granular material, or a void comprising the majority or all of the volume of the separation.” As offered and sold by Eljen, the Mantis® wastewater systems have adjacent channels separated along a majority of their length by two or more inches, where the separations comprise a void comprising the majority or all of the volume of the separation. Eljen then instructs others to position sand or granular material in the separations between adjacent channels. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. Therefore, as installed and used by others according to Eljen’s instructions, the Mantis® wastewater systems also have adjacent channels separated along a majority of their length by two or more inches, where the separations comprise sand or granular material comprising the majority or all of the volume of the separation, satisfying the requirements of claim 1. Thus, others that install and use the Mantis® wastewater systems according to Eljen’s instructions are also direct infringers of claim 1, and Eljen contributes to that infringement.

320. Claim 22 recites: “[a] system for wastewater comprising.” As shown in Exhibits P to U, Eljen directly infringes claim 22 of the ‘863 Patent by designing,

manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

321. Claim 22 requires: “the separations between adjacent channels of the plurality comprising a void comprising the majority or all of the space of the separation, or sand, or a granular material.” As offered and sold by Eljen, the Mantis® wastewater systems have separations between adjacent channels comprising a void comprising the majority or all of the space of the separation. Eljen then instructs others to position sand or a granular material in the separations between adjacent channels. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. Therefore, as installed and used by others according to Eljen’s instructions, the Mantis® wastewater systems also have separations between adjacent channels comprising sand or a granular material comprising the majority or all of the space of the separation. Thus, others that install and use the Mantis® wastewater systems according to Eljen’s instructions are also direct infringers of claim 22, and Eljen contributes to that infringement.

322. Upon information and belief, others follow Eljen’s installation instructions to install the Mantis® wastewater systems in a manner that directly infringes claim 22. See, e.g., pictures at paragraph 130 and 256 above.

323. The Mantis® wastewater systems are components that constitute a material part of the invention in independent claims 1 and 22 of the ‘863 Patent because the Mantis® wastewater systems are especially designed to treat wastewater in a manner that directly infringes claims 1 and 22 of the ‘863 Patent.

324. As described above, on or around the date the '863 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the '863 Patent. Eljen even provided purported prior art references to Geomatrix during the pendency of the application that became the '863 Patent. The USPTO considered the references, and ultimately issued the '863 Patent over the references. Therefore, Eljen had and continues to have knowledge of the '863 Patent, and knowledge that its Mantis® wastewater systems are components that constitute a material part of the inventions in claims 1 and 22 of the '863 Patent.

325. Each of the components (Mantis® wastewater systems) is made, promoted and sold for use in treating wastewater, which is use covered by the '863 Patent. Eljen's website provides no other method of using the Mantis® wastewater systems. Thus, Eljen sells and offers to sell the components knowing that such components are especially made or especially adapted for use in infringement of the '863 Patent, and that such components are not staple articles or commodities of commerce suitable for substantial non-infringing uses.

326. Eljen had and continues to have knowledge that its Mantis® wastewater systems are components especially made or adapted for use in infringement of claims 1 and 22 of the '863 Patent, and that the Mantis® wastewater systems are not staple articles or commodities of commerce suitable for substantial non-infringing uses, and nevertheless instructs others to install and use the Mantis® wastewater systems in a manner that directly infringes claims 1 and 22. Further, Eljen has knowledge that others install and use the Mantis® wastewater systems in a manner that directly infringes claims 1 and 22. See e.g., <https://www.picuki.com/tag/eljenmantis>;

<https://www.instagram.com/eljencorp/?hl=en> (upon information and belief, Eljen posts photos on its social medial accounts showing others positioning sand or a granular material in the separations between adjacent channels, to facilitate wastewater treatment).

327. Therefore, Eljen is liable for contributory infringement of claims 1 and 22 of the '863 Patent under 35 U.S.C. § 271(c).

COUNT XVII – INDUCED INFRINGEMENT OF THE '863 PATENT
(Mantis® wastewater systems)

328. As described above, Eljen directly infringes numerous claims of the '863 Patent by designing, manufacturing, using, selling, and offering to sell the Mantis® wastewater systems. Claims 1 and 22 of the '863 Patent also cover the Mantis® wastewater systems as installed and/or used. As discussed above, Eljen had knowledge of the '863 Patent, and the scope of claims 1 and 22. With that knowledge, Eljen instructs and induces its installers, customers, partners, resellers, affiliates, and other parties (hereinafter "others") to install Mantis® wastewater systems in a manner that directly infringe claims 1 and 22 of the '863 Patent. Eljen acts with the requisite intent, as described above and below. Therefore, Eljen induces infringement of the '863 Patent by not only providing the Mantis® wastewater systems, but also by inducing others to use the Mantis® wastewater systems in a manner that directly infringes claims 1 and 22 of the '863 Patent.

329. Claim 1 recites: "[a] system for wastewater comprising." As shown in Exhibits P to U, Eljen directly infringes claim 1 of the '863 Patent by designing, manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

330. Claim 1 requires: “where adjacent channels are separated along a majority of their length by two or more inches, the separations comprising sand, or a granular material, or a void comprising the majority or all of the volume of the separation.” As offered and sold by Eljen, the Mantis® wastewater systems have adjacent channels separated along a majority of their length by two or more inches, where the separations comprise a void comprising the majority or all of the volume of the separation. Eljen then instructs and induces others to position sand or a granular material in the separations between adjacent channels. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. Therefore, as installed and used by others according to Eljen’s instructions, the Mantis® wastewater systems also have adjacent channels separated along a majority of their length by two or more inches, where the separations comprise sand or granular material comprising the majority or all of the volume of the separation, satisfying the requirements of claim 1.

331. Claim 22 recites: “[a] system for wastewater comprising.” As shown in Exhibits P to U, Eljen directly infringes claim 22 of the ‘863 Patent by designing, manufacturing, using, selling and offering to sell to others the Mantis® wastewater systems in Connecticut and elsewhere in the United States.

332. Claim 22 requires: “the separations between adjacent channels of the plurality comprising a void comprising the majority or all of the space of the separation, or sand, or a granular material.” As offered and sold by Eljen, the Mantis® wastewater systems have separations between adjacent channels comprising a void comprising the majority or all of the space of the separations. Eljen then instructs and induces others to

position sand or a granular material in the separations between adjacent channels. See Exhibit O, pg. 12; Exhibit M, pg. 10; Exhibit J, pg. 10; Exhibit H, pg. 10; Exhibit I, pg. 12; and Exhibit G, pg. 10. Therefore, as installed and used by others according to Eljen's instructions, the Mantis® wastewater systems also have separations between adjacent channels comprising sand or a granular material comprising the majority or all of the space of the separations, satisfying the requirements of claim 22.

333. As discussed in paragraphs 151-155, and 165-167 above, on or around the date the '863 Patent issued, Geomatrix and/or Potts informed Eljen of its infringement of the '863 Patent. Eljen's several attempts to invalidate patents in this family, either by providing alleged invalidating prior art to Geomatrix, or by submitting alleged invalidating prior art directly to the USPTO, all failed when the USPTO issued the patents over one or more of those prior art references. Thus Eljen instructed and induced, and continues to instruct and induce, others to engage in infringement with knowledge of the scope of the patent claims, and with knowledge that the USPTO issued the patents over alleged prior art that Eljen unsuccessfully claimed to be invalidating. Eljen knew or should have known that the patents were not just entitled to the statutory presumption of validity but were issued over the alleged prior art that Eljen claimed to be invalidating.

334. Therefore, Eljen had and continues to have knowledge of the '863 Patent, and the scope of claims 1 and 22. With that knowledge, Eljen nevertheless instructed and induced, and continues to instruct and induce, others to install and use the Mantis® wastewater systems according to Eljen's installation manuals and other customer-facing materials in a manner that directly infringes claims 1 and 22.

335. Based on the foregoing, Eljen provides the installation manuals and other customer-facing materials with knowledge of the scope of, and with the specific intent to infringe, claims 1 and 22. Upon information and belief, due to Eljen's inducement, others install and use the Mantis® wastewater systems according to Eljen's installation manuals and other customer facing materials in a manner that directly infringe claims 1 and 22. See, e.g., pictures at paragraphs 130 and 256; See also, paragraph 326.

336. Therefore, Eljen is liable for induced infringement of claims 1 and 22 of the '863 Patent under 35 U.S.C. § 271(b).

Demand for Relief

WHEREFORE, Geomatrix requests entry of judgment against Eljen as follows:

- A. Finding Eljen liable for infringement of the '863; '271; '875; and '278 Patents;
- B. Finding that Eljen's infringement of the "863, '271, '875, and '278 Patents is willful;
- C. Awarding Geomatrix damages under 35 U.S.C. § 271 adequate to compensate for Eljen's infringement and to address the willful nature of that infringement;
- D. Permanently enjoining Eljen, together with any officers, agents, servants, employees, and attorneys, and such other persons in active concert of participation with them, who receive actual notice of the Order, from further infringement of the '863; '271; '875; and '278 Patents;

E. A declaration that this case is exceptional within the meaning of 35 U.S.C. § 285 and awarding Geomatrix its reasonable attorneys' fees, costs, and disbursements;

F. Awarding Geomatrix interest on all damages awarded; and

G. Granting Geomatrix all other relief to which it is entitled.

Demand for Jury Trial

Geomatrix demands trial by jury for all issues so triable.

Dated: June 8, 2021

THE PLAINTIFF,
GEOMATRIX SYSTEMS, LLC

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CERTIFICATION OF SERVICE

I hereby certify that on the above date, a copy of the foregoing was filed electronically and served by mail on anyone unable to accept electronic filing. Notice of this filing will be sent by email to all parties by operation of the court's electronic filing system or by mail to anyone unable to accept electronic filing as indicated on the Notice of Electronic Filing. Parties may access this filing through the court's CM/ECF System.

By: /s/ Leigh Taggart