CLAIMS

1. A filter system, comprising:

a filter chamber body having a chamber base, and at least one chamber wall that extends up from the chamber base;

a chamber inlet that extends through the filter chamber body, wherein the filter chamber body is configured to receive a fluid through the chamber inlet;

a chamber outlet that extends through the filter chamber body at a location downstream of the chamber inlet with respect to a direction of fluid flow through the filter chamber body, wherein the filter chamber body is configured to expel the fluid through the chamber outlet;

a plurality of fluid flow paths that extend between the chamber inlet and the chamber outlet, the plurality of fluid flow paths including first and second subsets, each including at least a respective one of the fluid flow paths;

a plurality of hydrocarbon filters disposed in the filter chamber body such that each hydrocarbon filter is disposed in a respective different one of the plurality of fluid flow paths, and each hydrocarbon filter is configured to remove and retain hydrocarbons from the fluid;

a first inlet channel within the filter chamber body and in fluid communication with an inlet of each hydrocarbon filter of the first subset; and

a second inlet channel within the filter chamber body and separated from the first inlet channel by a first baffle, the second inlet channel being in fluid communication with an inlet of each hydrocarbon filter of the second subset,

wherein the filter system is configured such that, once each hydrocarbon filter of the first subset is saturated with hydrocarbons, the first inlet channel fills with fluid until the fluid cascades over the first baffle to the second inlet channel.

2. The filter system of claim 1, wherein the filter system is configured such that, once each hydrocarbon filter of the first subset becomes saturated with hydrocarbons, the filter system diverts the fluid to additionally flow to a third subset of the plurality of fluid flow paths, the third set including at least a respective one of the fluid flow paths.

3. The filter system of claim 2, wherein the first subset is between the second subset and the third subset.

4. The filter system of claim 1, wherein the filter system is configured such that, once each hydrocarbon filter of the second subset becomes saturated with hydrocarbons, the filter system diverts the fluid to flow to another subset of the plurality of fluid flow paths, the another subset including at least a respective one of the fluid flow paths.

5. The filter system of claim 4, wherein the second subset is between the first subset and the another subset.

6. The filter system of claim 4, wherein the another subset is between the first subset and the second subset.

7. The filter system of claim 1, wherein the filter system comprises at least one baffle that extends up from the base so as to define a plurality of channels in the filter chamber body that at least partially define the plurality of fluid flow paths.

8. The filter system of claim 7, wherein the plurality of channels includes at least one outlet channel and at least one inlet channel that are separated from one another by at least one of the baffles, the at least one inlet channel being in fluid communication with the chamber inlet, and the at least one outlet channel being in fluid communication with the chamber outlet.

9. The filter system of claim 8, wherein each of the hydrocarbon filters has a filter inlet and a filter outlet, each filter inlet being in fluid communication with the at least one inlet channel, and each filter outlet being in fluid communication with the at least one outlet channel.

10. The filter system of claim 1, comprising a third inlet channel that is separated from the first inlet channel by a second baffle and that is in fluid communication with an inlet of each hydrocarbon filter of a third subset of the plurality of fluid flow paths,

wherein the filter system is configured such that, once each hydrocarbon filter of the first subset is saturated with hydrocarbons, the first inlet channel fills with fluid until the fluid cascades over the second inlet baffle to the third inlet channel.

11. The filter system of claim 1, comprising a third inlet channel that is separated from the second inlet channel by a second baffle and that is in fluid communication with an inlet of each hydrocarbon filter of a third subset of the plurality of fluid flow paths,

wherein the filter system is configured such that, once each hydrocarbon filter of the second subset is saturated with hydrocarbons, the second inlet channel fills with fluid until the fluid cascades over the second inlet baffle to the third inlet channel.

12. The filter system of claim 1, wherein the plurality of hydrocarbon filters comprises one or more lower hydrocarbon filters and one or more higher hydrocarbon filters that are offset from one another with respect to the vertical direction,

wherein the filter system is configured such that, once the one or more lower hydrocarbon filters is saturated with hydrocarbons, a level of the fluid within the filter chamber body rises to the one or more higher hydrocarbon filters.

13. The filter system of claim 1, comprising at least one fluid level sensor disposed in the filter chamber body, wherein the filter system is configured to at least partially close a normally open valve upstream of the filter system when the fluid level sensor senses that a level of the fluid exceeds a predetermined threshold.

14. A monitoring system, comprising:

a fluid flow separation chamber comprising an inlet and an outlet, the fluid flow separation chamber including one or more flow-restricting features configured to slow a flow of the fluid within the fluid flow separation chamber so as the fluid flows from the inlet to the outlet so as to cause hydrocarbons to rise to an upper surface of the fluid;

a sensor configured to detect a presence of a threshold amount of hydrocarbons in the fluid while the fluid flows from the inlet to the outlet; and

the filter system of claim 1, wherein the chamber inlet of the filter system is configured to be placed downstream of the outlet of the fluid flow separation chamber.

15. The monitoring system of claim 14, comprising a normally open valve configured to be placed in fluid communication with the inlet, wherein the monitoring system is configured to close the normally open valve when the presence of the threshold amount of hydrocarbons in the fluid is detected.

16. The monitoring system of claim 15, comprising at least one fluid level sensor disposed in at least one of the filter chamber body and the fluid flow separation chamber, wherein the monitoring system is configured to close the normally open valve when the fluid level sensor senses that a level of the fluid exceeds a predetermined threshold.

17. A method, comprising:

directing a fluid to flow to a chamber inlet of a filter system and through the chamber inlet into a filter chamber body of the filter system;

causing the fluid to flow through a first inlet channel within the filter chamber body along a first subset of a plurality of fluid flow paths to a chamber outlet of the filter system, the first subset including at least one respective fluid flow path, and each fluid flow path of the first subset including a respective hydrocarbon filter configured to remove and retain hydrocarbons from the fluid, wherein the first inlet channel is in fluid communication with an inlet of each hydrocarbon filter of the first subset; and

diverting, once each hydrocarbon filter of the first subset becomes saturated with hydrocarbons, the fluid flow to a second subset of the plurality of fluid flow paths, the second subset including at least one respective fluid flow path, and each fluid flow path of the second subset including a respective hydrocarbon filter configured to remove and retain hydrocarbons from the fluid, wherein the filter system includes a baffle that separates the first inlet channel from a second inlet channel within the filter chamber body, the second inlet channel being in fluid communication with an inlet of each hydrocarbon filter of the second subset,

wherein the diverting step comprises causing the fluid to cascade over the baffle to the second inlet channel.

18. The method of claim 17, comprising, before the directing step:

causing the fluid to flow from an inlet of a fluid flow separation chamber to an outlet of the fluid flow separation chamber, the outlet being in fluid communication with the chamber inlet, such that the fluid flow separation chamber causes the flow rate of the fluid to decrease, thereby causing the hydrocarbons to rise to an upper surface of the fluid in the fluid flow separation chamber; and

sensing the fluid in the fluid flow separation chamber to detect a presence of a threshold amount of hydrocarbons in the fluid while the fluid flows from the inlet to the outlet.

19. The method of claim 18, comprising closing a normally open valve that is in fluid communication with the inlet when the presence of the threshold amount of hydrocarbons in the fluid is detected.