

distributor valve inlet 22 will be connected to a purge line outlet 24. The methanol mixture will flow through the purge line outlet 24 and will be collected in a waste bottle (not shown) or otherwise dumped, thus cleaning the system of any impurities.

After the first mode of operation of the pesticide sampler is completed, the sampler will be ready to be obtained samples when prompted by a timer/computer 40. In accordance with a second mode of operation, in the second mode of operation of the pesticide sampler the four way valve 12 is switched to the "sample" mode or state under the control of the timer/computer 40. This will cause a connection to be provided, via the four way valve 12, between the sample inlet line 10 and the sample pump 12. When a particular event occurs, e.g., the passing of a time interval or the activation of the sensor 42 in response to a rainfall, the timer/computer 40 actuates the distributor valve motor assembly 28 as described above. This causes the realignment of inlet port 22 with a sample outlet port 26 and associated collection unit 30. The sample pump 14 is then actuated via a signal from the timer/computer 40 causing river water to flow through the sample inlet line 10 into the four way valve 12. The river water is pumped by the sample pump 14 into the distributor valve inlet 22 and flows out a respective sample outlet valve 26 into line or pipe 32. The river water is filtered in filter 34 and passes to liquid-solid extraction cartridge 36. The river water passes through the C18 in cartridge 36 and the contaminants therein are trapped in the cartridge 36 while the water is returned in the sample bottle 38.

Continuing on with a consideration of the operation of the sampler, the automatic pesticide sampler then initiates the first mode of operation, i.e., the cleaning mode, so that another sample may be then taken. This process continues until all twenty-four samples have been collected. At this stage the amount of water in each collection unit 30 is recorded and then the water is discarded while the liquid-solid extraction cartridge 36 is sent off for testing.

Although the present invention has been described relative to specific exemplary embodiments thereof, it will be understood by those skilled in the art that variations and modifications can be effected in these exemplary embodiments without departing from the scope and spirit of the invention.

What claimed is:

1. An automatic water sampler device for obtaining and storing samples for later laboratory processing, said system comprising an inlet line means for transporting water samples collected at a sampling site; distributor valve means, including an input connected to said inlet line and a plurality of output ports, for sequentially distributing water samples received at said input port to said output ports; a plurality of collection units, individually connected to respective ones of said output ports, for collecting and storing samples from said output ports, said collection units each including a liquid-solid extraction cartridge for extracting, at the site of the water sampler device, an organic contaminant sample from said water samples; and a sample pump means for pumping water samples from said inlet line to said input of said distributor valve means.

2. The device recited in claim 1 wherein said collection units each further comprise a filter means for filtering particulate matter from the water samples, and a storage bottle for storing said organic contaminant sample for subsequent volume measurement.

3. The device recited in claim 1 where in said distributor valve means comprises one input port and alternating purge and sample output ports.

4. The device recited in claim 3 further comprising means for sequentially connecting said input port to said output ports by a gasket or O-ring for creating a watertight seal that is tolerant of sediment in said water samples.

5. The device recited in claim 1 further comprising an automatic activating means for powering said sample pump means and for opening said distributor valve means for enabling the sampler device to take water samples while unattended.

6. The device recited in claim 5 wherein said automatic activating means comprises a sensor for sensing an occurrence of rainfall and means responsive to said sensor for controlling activation of said sample pump means and distributor valve means.

7. An automatic water sampler device for obtaining and storing samples for later laboratory processing, said system comprising an inlet line means for transporting water samples collected at a sampling site; distributor valve means, including an input port connected to said inlet line and a plurality of output ports, for sequentially distributing water samples received at said input port to said output ports, means for sequentially connecting said input port to said output ports by a gasket or o-ring so as to create a watertight seal that is tolerant to sediment in the water samples; a plurality of collection units, individually connected to respective ones of said output ports, for collecting and storing samples received at said output ports; and a sample pump means for pumping water samples from said inlet line to said input of said distributor valve means; and a control means, responsive to a predetermined event, for controlling operation of said distributor valve means and said sample pump means.

8. The device recited in claim 7 further comprising a reservoir for a cleaning solution and a four way valve means, for, in a first, cleaning mode, providing a connection between said sample pump and said reservoir so that said cleaning solution is pumped by said sample pump means to said distributor valve means, and, in a second, sampling mode, providing a connection between said sample pump and said inlet line means so that water samples are pumped by said sample pump means to said distributor valve means.

9. The device recited in claim 8 wherein said control means comprises an automatic activating means for powering said sample pump means, for opening said distributor valve means, and for configuring said four way valve for enabling the sampler device to take water samples and provide cleaning of said device with said cleaning solution while the sampler device is unattended.

10. The device recited in claim 7 wherein said collection units each comprise a filter means for filtering particulate matter from the water samples, a liquid-solid extraction cartridge for extracting an organic contaminant sample from said water samples, and a storage bottle in which said organic contaminant sample is stored for subsequent volume measurement.

11. The device recited in claim 7 wherein said distributor valve means comprises a single input port and a plurality of alternating purge and sample output ports.

12. The device recited in claim 7 wherein said collection units each comprise a liquid-solid extraction car-