

PM Septic System Inspection Form FAQs & Comments

Not all of these comments will apply to all homeowners as there are a couple of different configurations used in the subdivision. If you have any questions regarding the information on your report, such as recommendations regarding repairs, maintenance, or pumping, etc., feel free to contact a member of the OWASA committee and someone will be happy to take the time to explain it to you.

FAQs

1. In the report there is a comment that says "Unable to determine through 6" Access", what does this mean?
2. What is the "Delivery Rate"?
3. What is "Scour Velocity"?
4. What is "Duct Seal" and why do I need it in my Control Panel?
5. Why do I have to keep the soil and vegetation from around my tank lid or access riser?
6. Why does my float need "need to be adjusted"?
7. How often should my tanks be pumped?

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1. In the report there is a comment that says "Unable to determine through 6" Access", what does this mean?

On some of the first septic tanks installed at Piney Mountain, there was a 6" pipe cast into the tank lid for access. Even though this allows a visual check of the sludge levels, it does not allow access to the entire tank during pumping. Therefore the OWASA committee recommends installing access risers so that the lid can be removed to properly service a tank. On newer systems there is an access riser with lid similar to the access riser on your pump tank. Currently, any new installation is required to have access risers

2. What is the "Delivery Rate"?
 - a. The delivery rate is the volume of liquid in gallons per minute that the pump will deliver.
 - b. The minimum flow rate should not be less than 21gpm.
3. What is "Scour Velocity"?
 - a. This the amount of flow through the piping in gallons per minute to keep the line clear. The minimum scour velocity on a 2" pipe is 21gpm.
 - b. If the volume is less than 21gpm on a 2" pipe, then the line will close up similar to a clogged artery, the pump will then have to work harder and longer to pump the same amount of liquid. This will lead to premature pump failure, higher cost of electricity, and stress on the system components involved.
4. What is "Duct Seal" and why do I need it in my Control Panel?
 - a. Duct seal is a non hardening putty designed especially for electrical situations and can be removed at a later date to perform maintenance such as replacing a pump or control float.
 - b. The gases that are generated by your septic system are corrosive in nature. These can damage the electrical components located inside the control panel.

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- c. Duct Seal is placed inside the control panel where the conduit leaves the panel going to the tank, and also inside the tank where the conduit enters it.
- d. Use of sealers such as silicone, expanding foam, etc. are not designed for this purpose.
- 5. Why do I have to keep the soil and vegetation from around my tank lid or access riser?
 - a. The tank lids for the Grinder system and the Riser lids for the STEP system are designed to be above the ground level (grade) to prevent surface water from entering the tank.
 - b. If soil accumulates or vegetation either grows or gathers around the tank lid then water cannot properly drain away from your system.
 - c. The majority of the tank and access riser lids in Piney Mountain have been installed at "Grade Level" or right at the ground or just below.
 - d. If left in this condition then excessive amounts of surface water may enter the system, this will result in your pump running more often than necessary, which leads to higher cost to run the pump, shorter pump life, higher cost to you the homeowner should this cause any system failure at the processing unit that receives the waste water for the development.
 - e. Planting vegetation on top of or next to the tank area can lead to roots entering your system, damaging the concrete tank components, and possibly the piping, and causing the system to not function properly.
- 6. Why does my float need "need to be adjusted"?
 - a. There are two different types of floats used in most of the systems. The pump control float and the alarm float.
 - b. The pump control float tells the pumps when to turn on and off.
 - c. The Alarm float notifies you of a high water situation. This could be caused by a pump failure or unusually large amount of water entering the system faster than the pump can handle the inflow.
 - d. The alarm float is the one highest in your tank. The float level is set to allow for limited continued system use while awaiting repair (Usually 1 or 2 days in STEP systems. In Grinder systems there is not any storage. Call your repair person immediately!).
 - e. If your alarm is activated you should call your system repair person correct the problem before the liquid reaches the top of the tank or backs up into your home.
 - f. If the alarm float is set too close to the pump control float setting, the alarm may give false indications.
 - g. If you turn your alarm off, when a situation arises that requires your immediate attention you will not be aware until the sewage is running out onto the ground or backing up into your home.
- 7. How often should my tanks be pumped?
 - a. On average most tanks should be pumped between 3 to 5 years depending on the usage. Some tanks may not need it until later as some tanks may need it sooner. This is just a recommendation not a requirement. The following table is offered as a guide.

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Table 1. Estimated Septic Tank Inspection and Pumping Frequency (in Years)

Tank Size (gallons)	Number of People Using the System				
	1	2	4	6	8
900	11	5	2	1	<1
1,000	12	6	3	2	1
1,250	16	8	3	2	1
1,500	19	9	4	3	2

Source: Adapted from "Estimated Septic Tank Pumping Frequency," by Karen Mandl, 1984, *Journal of Environmental Engineering*, Vol. 110(1):283-285.

- b. One of the reasons to inspect your septic system is to determine when it is time to pump your tank.
- c. The amount of sludge in the bottom of the tank and scum on the top of the liquid determines when you should have your tanks pumped.
- d. For septic tanks we recommend when the tank is $1/3^{\text{rd}}$ full of the liquid volume in combined sludge & scum, then you should have your tank pumped.
- e. On pump tanks or dosing tanks, as some are described the level is 5 to 6 inches, the reason is the pump should be elevated from the bottom of the tank, usually by a concrete block, and if the sludge level rises above the measurement it can get into the pump and then be sent out into the rest of the system, cause the pump to work harder, draw additional amperage and shorten the life.
- f. The pump on a STEP system is designed to pump only water.
- g. The Grinder system uses a different type of pump that will handle solids that it grinds up as it pumps it out and therefore does not have a problem with sludge or scum.

This is not an all-inclusive document, but it is to help you better understand your system and how it works as well as why it is important to properly maintain your system.