Scheduled Field Maintenance Report

AdvanTex® Field Maintenance Report

Property Owner/Tracking #				Operator
Site Address				Contact Phone
AX Site ID #	County ID #	Pod #	RTU #/UL #	Date of Last Inspection

Retrieve O&M Info

Daily flow_____

Recirc ratio _____

Timer settings:

Perform Field Sampling/Observations

NTU (15 ± NTUs)	pH (6-9)	DO (2-6)

Odor of Sample

Typical ☐ Musty ☐ Earthy ☐ Moldy

Non-typical ☐ Sulfide ☐ Cabbage ☐ Decay

Oily film in PVU ☐ Yes ☐ No

Foam in tank ☐ Yes ☐ No

Check Control Panel

Recirc Amps	Discharge Amps

Audible and visual alarms ☐ OK

Dial tone (telemetry only) ☐ Yes ☐ No

Inspect/Clean Pump System

	Inspect	Clean
Riser/Lid	☐	
Splice Box	☐	
Float Cords	☐	
Floats	☐	☐
Pump	☐	☐
Biotube® Filter	☐	☐
Biotube Pump Vault	☐	☐
Recirculating Splitter Valve	☐	☐

Measure Sludge/Scum

	Sludge		Scum	
1st Compartment	Current	Previous	Current	Previous
2nd Compartment	Current	Previous	Current	Previous

Inspect/Clean AdvanTex Filter

				Inspect	Clean
Odor:	☐ Normal	☐ Pungent	Laterals/Orifices	☐	☐
Biomat:	☐ Normal	☐ Excessive	Pod Bottom	☐	☐
Bridging/Ponding:	☐ None/Minor	☐ Excessive	Intake Vent	☐	☐

Inspect/Clean Discharge Pump System

	Inspect		Inspect	Clean
Riser/Lid	☐	Floats	☐	☐
Splice Box	☐	Pump	☐	☐
Float cords	☐			

Inspect/Service Other System Components

	Inspect	Clean		Inspect	Clean
Disinfection Equipment	☐	☐	Dispersal Laterals/Orifices	☐	☐

Dispersal Type

Additional Services Rendered

☐ Cleaned textile sheets? ☐ Replaced UV items?

☐ Replaced/Used other items?

Parts Used: W = Warranty, B = Billable (✓ appropriate selection)

W	B	Item Number	Description

Final/Safety Inspection

☐ RSV reinstalled ☐ Lids bolted on

☐ Manifold reconnected; flush valves closed ☐ Control panel reactivated

Summary/Recommendations

☐ System performing; no further action needed ☐ Tank needs pumping

☐ Call for service ☐ Other? _____

Comments _____

_____

Signature _____ **Date** _____

Fax completed form to 1-866-384-7404

 • Copyright Orenco Systems®, Inc. Property of Orenco Systems®, Inc. Do not reproduce or distribute without written authorization from Orenco: 800-348-9843.

Performing Scheduled Field Maintenance

Residential AdvanTex Treatment Systems require periodic servicing. AX20 systems need a six-month visit, a one-year visit, and annual visits* thereafter. AX20N systems require four visits during the first two years and annual visits* thereafter. Failure to provide required maintenance will void the AdvanTex Treatment System warranty and may place the system out of compliance with local regulations.

Homeowner Communication

Whenever possible, contact the residents when it's time for a service visit, especially if the residents are new to the home. The service visit is an opportunity to talk with them about proper use of the system, so try to schedule the visit when someone will be there.

Retrieve O&M Info

Download the *Field Maintenance Report* form for your site from www.advantexservice.com. The top of the form should be pre-filled with information about the system.

Perform Field Sampling/Observations

When you arrive at the site, remove the lids from the risers and take your sample before doing anything else, so that the sample won't be contaminated by material that you stir up while working. To sample effluent, remove the Recirculating Splitter Valve (RSV) from its quick-release holster and set it aside. There will be enough of a trickle through the RSV plumbing to collect a sample without waiting for the pump to cycle.

IMPORTANT: *To avoid contamination, do not run the pump manually or in test mode to obtain this sample.*

Wash down, brush, or wipe the RSV inlet before taking the sample so there will be no contamination from dislodged solids.

Leave the RSV disconnected for the rest of the service call so that any debris you stir up does not make its way to the drainfield.

☐ **Clarity of sample**

Assess the clarity of the sample by using a portable turbidity meter.

WARNING: *Follow the precautions below when performing field maintenance on AdvanTex Systems.*

- *Do not enter the tank. Entering a tank without proper confined space procedures and equipment can cause serious injury or death.*
- *Use proper personal protection equipment, such as rubber gloves and eye protection, as well as protective clothing, to cover parts of the body that will be exposed to wastewater or effluent.*
- *When working on components that contact sewage or effluent, lay them on a plastic sheet or place them in a trash can, not on the lawn. Several tools that reduce the mess of cleaning Biotube® filters and AdvanTex textile sheets are available from Orenco.*
- *Turn off power to electrical components when working in splice boxes or the control panel or when disconnecting pumps.*
- *When finished, use proper personal hygiene.*

☐ **Odor of sample**

Sniff the sample and assess its odor. Record these observations about clarity (NTUs) and odor on the *Field Maintenance Report* form.

☐ **pH of sample**

☐ **Dissolved oxygen of sample**

Using pH test strips or a pH meter, check the pH of the sample and record it on the *Field Maintenance Report* form. Values from 6 to 9 are normal. Also check the sample's dissolved oxygen (DO) using a DO meter (or DO field test ampoules), and record that on the form. Values from 2.5 to 6 mg/L are normal.

NOTE: *If field sample levels are outside of the norm or if your observations indicate the treatment system may not be functioning properly, further testing in a laboratory environment may be needed.*

Sampling equipment, minimum sample size, and storage procedures should conform to the standard methods required by your federal, state, and local authorities.

☐ **Oily film in PVU**

☐ **Foam in tank**

Check the liquid in the pump vault (PVU) for an oily sheen, and the liquid in the first compartment of the tank for foam or other unusual appearance. Record your observations on the *Field Maintenance Report* form.

*Servicing intervals may vary according to local regulations.

Copyright Orenco Systems®, Inc. Property of Orenco Systems®, Inc. Do not reproduce or distribute without written authorization from Orenco: 800-348-9843.

Performing Scheduled Field Maintenance (continued)

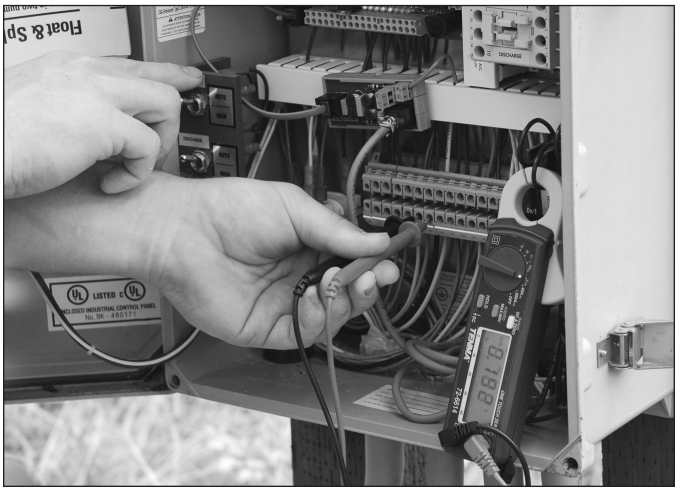
Check Control Panel

Open the control panel and place it in test mode.

☐ **Run amperage**

Check and record the run amperage of the recirculation pump and discharge pump. Place the clamp of an ammeter around the wire to each pump's circuit breaker and read the amperage while each pump is running. You can run the pump by holding the toggle switch on MAN. Amperage should be no more than the pump's maximum service factor amperage.

Release the switch to the AUTO position. Make sure the pump comes on as the timer cycles. Timer cycles are shortened to about 30 seconds in test mode.



☐ **Audible and visual alarms**

Check the operation of the floats and timers by lifting the float trees out of the tank and discharge basin and following the instructions clipped inside the panel door. Make sure that audible and visual alarms are activated when the appropriate float is raised or lowered.

☐ **Dial tone (telemetry only)**

For systems equipped with VeriComm® panels, use a phone line tester or a phone to verify the presence of a dial tone.

Inspect/Clean Recirc Pump System

☐ **Riser/Lid**

Make sure that the lid is intact, and replace it if necessary. Replace any missing lid bolts. Check for marks of liquid infiltration or exfiltration.

☐ **Splice box**

Open the splice box and make sure there is no water in it. If there is, remove the water with a sponge and repair the leak. If you disconnect any connections, do not reuse the wire nuts when you reconnect them — use new ones.

☐ **Float cords**

☐ **Floats**

Verify that the floats are in good condition and properly secured to the float tree. Verify that float cords are neatly wrapped inside the riser so that they cannot interfere with the operation of the floats. Clean floats by hosing or brushing them so that debris falls back into the tank, not into the pump vault.

☐ **Pump**

Turn circuit breaker off at service panel. Switch MOA and circuit breakers in control panel to "Off." Pull the pump and place it on a cleanable surface, like the riser lid, or in a plastic trash can. Check the intake screen; wash off particles as necessary. Record the kinds of particles in the Comments section of the *Field Maintenance Report* form and report findings to user (for preventive maintenance). Reinstall the pump, checking to make sure the discharge valve on the hose and valve assembly is open.

 • Copyright Orenco Systems®, Inc. Property of Orenco Systems®, Inc. Do not reproduce or distribute without written authorization from Orenco: 800-348-9843.

Performing Scheduled Field Maintenance (continued)

☐ **Biotube® Filter**

☐ **Biotube Pump Vault**

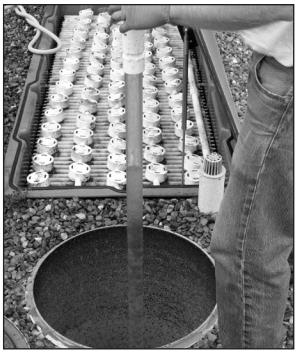
Clean the Biotube Filter at every visit. Make sure that the RSV is out. Slide Biotube cartridge out of vault. Hold Biotube cartridge over open inlet of tank or primary compartment. Carefully spray build-up into tank. (The Biotube Cradle, available from Orenco, holds the Biotube Filter on the lip of the riser and directs debris into the tank away from the pump vault.) Flush vault bottom.

☐ **Recirculating Splitter Valve**

Move the RSV from side to side to check that the balls move freely. Then verify that the liquid level in the tank is within the normal range. If it is low, the ball mechanism could be jammed in the seated position. If it is high, the RSV may not be making a tight seal when the balls are seated. Clean the balls and replace the balls or the cage if necessary. Don't replace the RSV in the tank until you're ready to leave the site.

Measure Sludge/Scum

Measure sludge and scum in both compartments of the tank, and record the measurements on the *Field Maintenance Report* form. Schedule pumping of the tank when the bottom of the scum layer is within 3 inches (75 mm) of the flow-through port of the tank baffle or when the sludge accumulates to within 6 inches (150 mm) of the flow-through port.



Note any unusual appearance or smell of the tank's contents, and consult the *Advanced Service Tips and Troubleshooting Guide*, available from your AdvanTex Dealer, if necessary. If you find kitty litter, sanitary products, excessive grease, or other material that shouldn't be in the tank, talk to the residents of the home and remind them not to flush those things.

Inspect/Clean AdvanTex Filter

Open the AdvanTex Filter pod.

☐ **Odor**

☐ **Biomat**

☐ **Bridging/Ponding**

Check that the odor and appearance of the biomat are normal. Pungent or unusual odor, ponding (excessive liquid), and bridging (excessive solids) are problems that need immediate attention. The *Advanced Service Tips and Troubleshooting Guide* can help you ascertain the cause. You may need to change the timer settings or discuss household habits with the system users. And you may need to clean the filter sheets. (See "Additional Services Rendered.")

☐ **Laterals/Orifices**

Inspect the orifice shields. A clean area around an orifice cover is a sign of a plugged orifice; clean these orifices out before cleaning the laterals.

To clean and flush the manifold, open the flush valves at the ends of the laterals and brush or jet the laterals.

☐ **Pod bottom**

Pull out a few sheets, inspect the pod bottom, and note any excessive buildup of debris. When you're done cleaning the manifold, remove the RSV from the tank, and run the pump for two or three minutes with the flush valves open and the RSV removed to flush debris from the pod's underdrain back into the tank. You can do this while you are performing other tasks. After flushing, close the flush valves and make sure the orifice covers are on more or less straight. Replace the RSV in the tank.

☐ **Intake vent**

Make sure that the ventilation intake is not damaged or blocked, and clean or replace it if necessary.

Copyright Orenco Systems®, Inc. Property of Orenco Systems®, Inc. Do not reproduce or distribute without written authorization from Orenco: 800-348-9843.

Performing Scheduled Field Maintenance (continued)

Inspect/Clean Discharge Pump System

- ☐ Riser/Lid
- ☐ Splice box
- ☐ Float cords
- ☐ Floats
- ☐ Pump

If there is a discharge pump basin, inspect it and its components. Clean floats and pump by hosing them. If you pull the pump, check to make sure the discharge valve is open after reinstalling.

Over time, solids may accumulate in the discharge basin. Use a trash pump to pump these solids into the inlet end of the processing tank.

Inspect/Service Other System Components

- ☐ Disinfection equipment
- ☐ Dispersal laterals/orifices

Follow the manufacturer's instructions to inspect and service other components of the system.

Additional Services Rendered

- ☐ Cleaned textile sheets?

You should not need to clean the textile sheets every year, but it may be necessary now and then. Don't clean them unless the buildup of biomat is bridging across the sheets, because removing too much of the biomat inhibits the system's treatment performance.

If you need to clean the sheets, remove the RSV so that solids can freely drain back to the tank. Then clean the sheets one by one with the AdvanTex Cleaning Wand, a hose, or a backpack pressure washer (at low pressure). Wash debris down into the pod, where it will drain back into the processing tank.

- ☐ Replaced UV items?
- ☐ Replaced/used other items?

Document any equipment replaced and any additional observations.

Final/Safety Inspection

Review the Field Maintenance Report form to ensure all activities have been performed.

- ☐ RSV reinstalled

If you haven't done so already, reinstall the RSV.

- ☐ Manifold reconnected and valves closed

Make sure that the flush valves at the ends of the AX20 laterals are closed.

- ☐ Lids bolted on

Replace all lids and tighten all lid bolts.

WARNING: *If lid bolts are missing, replace them with spares. If you have no spare lid bolts, fasten the lid with a self-tapping screw, and immediately call your Dealer for replacement bolts. If the lid is unbolted or if the lid or riser are damaged, be sure to securely block access to the tank opening before leaving the site. Open tanks are hazardous, and children or adults who try to enter them may be seriously injured, asphyxiated, or drowned.*

 • Copyright Orenco Systems®, Inc. Property of Orenco Systems®, Inc. Do not reproduce or distribute without written authorization from Orenco: 800-348-9843.

Performing Scheduled Field Maintenance (continued)

☐ **Control panel reactivated**

Make sure that all circuit breakers have been switched back on. The panel will automatically return from test mode to normal mode in 30 minutes. To manually return it to normal mode, hold down the alarm button on the front of the panel until the alarm chirps. Close and latch the panel, and lock it if necessary.

Summary/Recommendations

☐ **Treatment system is performing; no further action necessary**

☐ **Call for service**

☐ **Tank needs pumping**

☐ **Other?**

Check-off or document final recommendation(s). Back at the office, schedule any necessary follow-up.

Comments

Record any additional observations from your visit on the *Field Maintenance Report* form, along with information about equipment repaired or replaced.

Fax the completed form to the number on the bottom. The automated system will record the completion of the site's visit and archive an image of the form on advantexservice.com for future reference.

Copyright Orenco Systems®, Inc. Property of Orenco Systems®, Inc. Do not reproduce or distribute without written authorization from Orenco: 800-348-9843.