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GENERAL CASH STILL CLEANING PROCEDURE

1. Open the 3-way valve to the sample (inner) chamber.
2. Pour approximately 30 mL of 0.1N sodium hydroxide into sample (inner) chamber.
3. Rinse the funnel to the sample chamber with distilled water.
4. Close the 3-way valve to inner and outer chambers (valve parallel with counter).
5. Place a waste container under the condenser to collect the distillate.
6. Make sure the 2-way valve is closed.
7. Turn on heating element and run until you collect 125 mL of 0.1N sodium hydroxide distillate.
8. Turn off the heating element and discard distillate.
9. Evacuate the 0.1N sodium hydroxide from sample chamber. **Caution**: sample chamber contents will be **very hot**.
10. Add approximately 30 mL of distilled water to the sample chamber.
11. Turn on the heating element and run until you collect 125 mL of distilled water distillate.
12. Turn off the heating element and discard distillate.
13. Evacuate distilled water from sample chamber. **Caution**: sample chamber contents will be **very hot**.
14. Run QC check.

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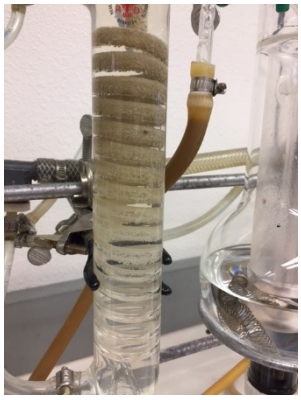
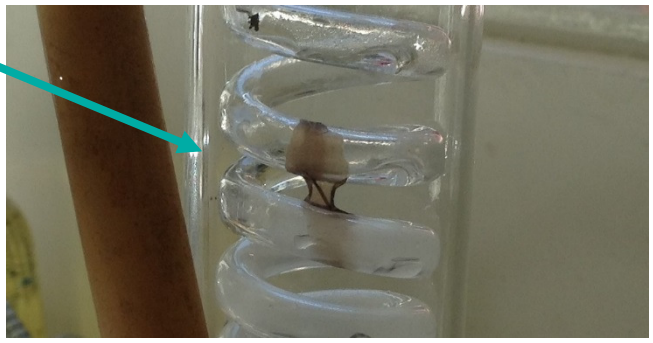
Hard Water Build-up or Mold Cleaning Procedure on Cash Still Condenser





1. Disconnect tubing going from condenser apparatus (both inlet and drain). Place open ends of the tubing in a cup or beaker to contain any draining water.
2. Remove the clip holding the condenser to the cash still bridge and gently rotate the ground glass joint to disconnect the condenser. **Caution**: Cash stills are fragile. Take appropriate precautions.
3. Put on safety gloves and goggles.
4. Set up a syringe or bottle wash with diluted hydrochloric acid 0.01N. If you only have 0.1N hydrochloric, then add 100 mL to 900 mL of distilled water to dilute.
5. Connect a small piece of tubing (approx. 1" – 2") to one of the condenser inlets and squirt the acid solution through the condenser's outer sleeve, using the force of the liquid and the cleaning power of the acid to knock off the deposits and rinse them away.
6. Repeat as necessary.
7. Once the deposits have been removed, reconnect one of the hoses removed in step 1 to one of the condenser inlets and the water faucet at the sink. Hold the condenser, open inlet down, over the sink or a large bucket.
8. Run cold water through the condenser's outer sleeve to rinse the hydrochloric acid thoroughly and flush out any remaining debris.
9. Reconnect the condenser to the cash still and with the correct inlet and drain tube configuration.

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