

Unfortunately, complete Used Oil analyses cannot be performed in the field. However, there are a few tests that can be done. A screen for Total Halogens can be accomplished using a test kit. High Halogens (over 1,000ppm) are an indication that used oil has been mixed with hazardous wastes such as chlorinated compounds that are commonly used as solvents.

A very crude test involves dipping a piece of copper (such as a small copper wire) into the sample then safely applying a flame. A blue-green flame or residue indicates that there *might* be chlorinated compounds present. Not meant to replace laboratory or field test kits, but it *might* give a ballpark idea...when other means are not available.



The typical field test for Total Halogens takes between 5 and 15 minutes. The first time around it takes a little while to get used to the test and to review the instructions. A similar field test can be done for PCBs.

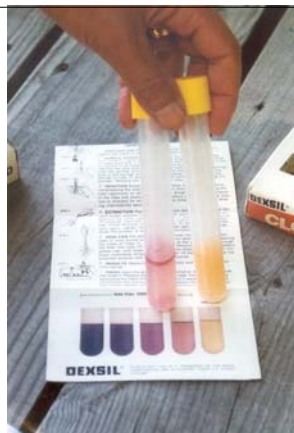
Basically, you add various ingredients to two test tubes.

Then...



...after mixing the ingredients outlined in the instructions, a color change takes place. Then you compare the color to a chart which gives you a rough idea as to the concentration of Total Chlorine in the sample.

Test kits are grant fundable. One kit does one test. They cost about \$10-\$20 each, and are commonly sold in bundles of ten.



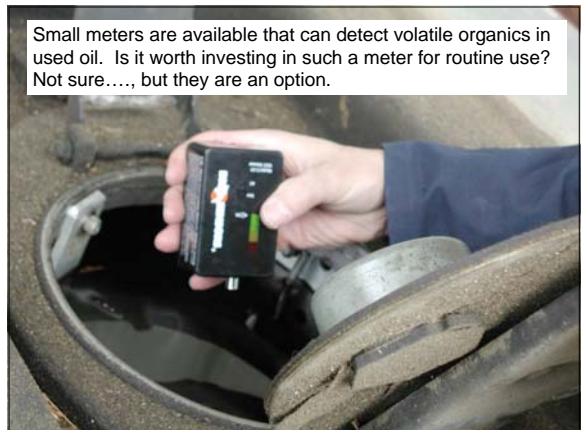
Used oil with a flashpoint below 100F is dangerous, and must be managed as a hazardous waste. Typical used oil flashes about 250F. An ignitability or flashpoint test can be accurately accomplished in a laboratory. However, a field test can give you some indication if the oil *might* have a flashpoint above 140F (oily Q-tip should *not* ignite prior to touching to flame). Safety first, of course, when trying this test (*safe location*).

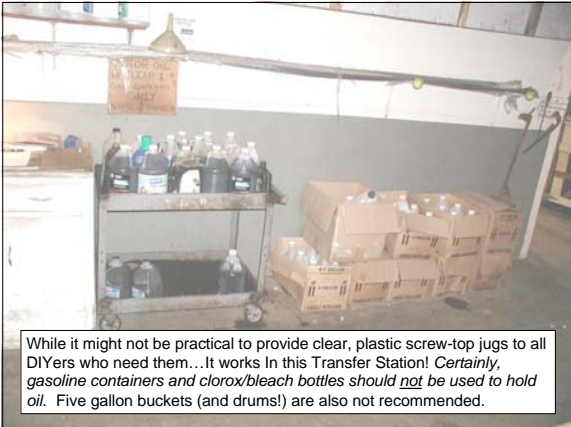


A sample can be drawn from a tank or drum using a long plastic or glass tube known as a "thief". The constituents of used oil can vary depending upon phase separation within the tank. Generally, this type of activity is done by an oil laboratory technician obtaining a sample to be analyzed in a lab.



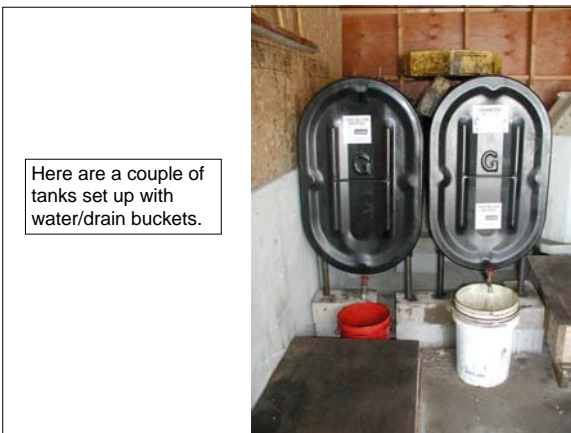
Small meters are available that can detect volatile organics in used oil. Is it worth investing in such a meter for routine use? Not sure...., but they are an option.





While it might not be practical to provide clear, plastic screw-top jugs to all DIYers who need them... It works In this Transfer Station! *Certainly, gasoline containers and clorox/bleach bottles should not be used to hold oil.* Five gallon buckets (and drums!) are also not recommended.

Beyond Hazardous Contaminants, bleeding of water (and screening out pine-needles/debris) can go a long way in ensuring that your UO will easily feed space heaters.



Here are a couple of tanks set up with water/drain buckets.

**Educating Residents** by way of such things as:

- Brochures, Websites, Signs, Promotional Campaigns...
- Explaining WHAT to do, *along with WHY*, can be helpful (and noting benefits to the community can gain support for the Recycling Center).

**Provide Outlets for Household Hazardous Wastes (support HHW Events)**

**Maintaining Operator Control** by way of such things as:

- Operator Training.
- Segregating UO from other Wastes.
- Having residents check in with Operators before leaving UO.
- Operator visually screens used oil and adds to drum or tank (rather than resident).
- Secure Locations

**The Eyeball...**

Sometimes you can see that something funky is going on. The first step is to make a reasonable assessment that you are only accepting *non-commercial DIY used oil*. Sometimes you will see a bit of water or anti-freeze in a gallon jug. This is not necessarily an indication of hazardous waste and might not be intentional mixing (could be a blown head gasket, for example).

Other times, you just can't tell what's in used oil without testing. If you do have a positive test then educating residents can help prevent a reoccurrence (*how does used oil become contaminated; and why is that a problem for the Center?*).

Along with draining water from your tanks, consider this idea: after a visual screening, add uo to a drum, let it settle out. Then sift off the undesirable stuff. Put that stuff into a drum (might need testing, or it might just be watery oil sludge that needs to be shipped off site). Grants can help pay to ship up to two drums of such DIY used oil-sludge/oily-water off-site/year.

When you have what appears to be a full "good" drum then do a total halogens field test and ignitability. You can also do a field PCB test if you suspect PCBs.

If, despite your best efforts, used oil exceeds 1,000 ppm Total Halogens then further testing and increased shipping costs will follow (grants might be an option in helping out).