

How To Pull an Accurate Oil Sample

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Although not a difficult process, pulling an accurate sample free of any outside contaminants, is the number one reason that a sample report is deemed inaccurate. This process must be done correctly or a false, misconstrued sample could cause the maintenance manager and his or her team, wasted time, efforts and other valuable resources.

Much of today's equipment does not come with sampling ports or valves from the OEM, so it is up to you to determine how or where to pull a sample from.

There are engines, sumps, pipes, tanks etc. for oil to be sampled from, but how do you get a clean, proper oil sample?

Facto..

One of the most common methods of pulling an oil sample is the "drop tube method" by using a vampire pump and some clear tube to obtain the sample. While this is OK, it is not always the most sanitary method of getting a clean oil sample.

The tube may turn in your sump and you could pull oil from the bottom or top of the reservoir. The tube could be handled for long periods of time and a high potassium reading could show up on your report. The dipstick could be full of dirt or soot and give you a false reading also. So try to make the drop tube method one of your last options for obtaining oil.

Steps To Take..

- If possible always try to install a sample port valve. This will assure that your oil sample is clean of Mother Nature's particles. There are many styles of valves you can use. The pushpin valve, push button valve, and turn valve are some of the most popular used in equipment/industrial applications.
- Use sample port ID tags. These are always an important part of setting up an accurate sampling program. Sample port ID tags help minimize confusion regarding the actual location of a sample port on the equipment and ensure samples are drawn from the correct location.
- When installing your sample port always check with a professional to ensure proper positioning of the sample valve. Try to keep away of dead flow areas where oils may settle. This is where you will find wear debris settling as well... water and other particulates that will show abnormal wear on your machine.
- Make sure the oil is flowing and always take a warm oil sample when possible. Keep your oil sample tube in a clean area, such as a plastic bag. Never use the same tube to pull different oil samples. This will cross contaminate your sample. Always clean your vampire pump after each use. And always use clean, approved bottles for sampling. Never reuse your sample bottles; you will always get a false reading.

Steps To Avoid..

- Putting the cap of the bottle in your pocket. This popular practice usually gives a high copper or nickel count depending on the change in your pocket.
- Letting lint, silicon, and unusual ppm readings ruin your day. These are present many times by picking your bottle cap out of your pocket and are usually a factor that can give you a false reading on your equipment reports as well.
- Leaving sample bottles open in the air for a period of time before being filled with your oil sample. Airborne contaminants from smoke, soot and other sources will render your sample inaccurate.

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