



Oil and Coolant Analysis Service

Frequently Asked Questions

Why does Time4T offer fluid analysis services?

Your engine, transmission and generator contribute a large portion to the overall cost of your RV and, as you probably know, the engine and transmission are essential to moving the RV around the country. Likewise, your generator provides the comforts of home. So, why take risks of something going wrong with these critically important components when it's so easy and economical to get the data you need to ensure that your engine, transmission and generator stay as **worry free, reliable and roadworthy as possible**. Oil and coolant analysis allows owners to "see inside" the engine, transmission, and generator and adds a whole new level of diagnostics that you can't get any other way.

Think of it as "Healthcare for RVs". Internal parts depend on oils and coolants remaining stable and contaminant free between normal service intervals. Oil and coolant analysis is the only way to tell if there are any issues with oil or coolant breakdown and/or contamination that you should know about. Not only do we check oils and coolants for thermal breakdown, mechanical breakdown or contamination; but, we also check for internal part wear. Oil and coolant testing allows you to know about things that need your attention long before you get into issues that could result in costly repairs, road calls or lost travel time. Knowing the condition of your oils and coolants, either through initial inspection or follow-up annual sampling and analysis, improves the overall reliability of your RV drivetrain and generator systems. Time4T's oil and coolant analysis service brings you the peace of mind that only comes with knowing for sure that your RV's engine, transmission, and generator remain as "worry free" as possible.

How does oil and coolant analysis affect normal service intervals?

Most service intervals (*also known as Preventive Maintenance or "PM" schedules*) call for oils and coolants to be changed based on accumulated mileage or on hours of use or elapsed calendar time. Changing oils and coolants is "generally" a good idea but often it's not the most economical method of maintaining RV engine, transmission or generator fluids. Let's say the fluids were changed too soon or before it's necessary. If



there's still plenty of life left in them, that's like throwing money down the drain. On the other hand, if you fail to change fluids when they're worn out or contaminated, you take the chance of getting into some serious problems that can put your RV in the shop and drain your wallet. If you're changing oils and coolants without having them analyzed, you're missing out on some pretty important information that could make a real difference in your plans.

Oil and coolant analysis is a **useful diagnostic tool** that offers you and your service technician a whole new level of understanding. It allows you to see inside the equipment and determine the true condition of your engine, transmission and generator. It improves your ability to assess these critical RV systems for wear and contamination that could lead to early failures if left unchecked. **Fluid analysis enables you to observe systems at a "microscopic level"**. This greatly improves your ability to learn about issues that need your attention so you can have them fixed at the earliest opportunity, long before serious problems occur. You'll know when oils and coolants begin to break down or become contaminated and you'll be able to see internal part wear issues if they exist.

In short, oil and coolant analysis increases your ability to detect minor problems and schedule repairs, if needed, before they result in breakdowns, repairs and lost travel opportunities. You just can't get that from draining and replacing your RV oils and coolants.

What will the oil analyses tell me?

Oil analysis measures additive levels, wear metals, contaminants (*such as water or internal coolant or fuel leaks*), soot levels, viscosity, oxidation, and nitration. First, the oil is checked for viscosity loss (*thinned out oil*) and thermal breakdown (*too much heat*). We also check for signs of fuel and coolant caused by faulty injectors or leaking head gaskets and we check for nitration that may indicate improper fuel/air mixtures. We can tell all of that from the analysis plus we can detect the early stages of wear on internal parts. **Periodic oil analysis enables you to find these problems in the early stages long before real damage occurs.**

Time4T offers advanced oil analysis, designed to give you data that allows you to tell if your current oil and coolant service intervals are correct. The data will show if you're changing too soon or if you're running too long between service intervals. There are (2) reasons why this is so important. First, advanced oil testing gives you the data you need to save money by safely extending service intervals. **In fact, some Class-A "Diesel Pusher" (DP) owners are already running up to 25,000 miles between engine oil changes.** Secondly, let's say you purchased a used Class A with an Allison transmission. Advanced testing can show you whether or not you're running the Allison "long life" approved fluid. If the transmission fluid test shows you're running an older technology DEXRON-III type transmission fluid, you'll have the data you need to support changing the fluid over to the long life (*Allison TES-295 approved*) product and save even more money over the life of your motorhome.

What will the coolant analyses tell me?

Coolant analysis measures glycol content, additive levels, Freeze Point, Boiling Point, total hardness and dissolved solid levels (*mineral content*). These tests tell you everything you need to know to fully evaluate your engine cooling system. We'll tell you if a coolant change is needed and why we think it's necessary.

Do I get test reports for my records?

You'll receive detailed test reports of the analyses along with comments and recommendations to explain the findings. Your reports are emailed to you and reports are marked by level of Severity. They're "color-coded" so it's easy to spot problems (*if we find any*). The color code indicates the overall severity of the sample from 0 to 4 (*with 0 meaning everything's fine and no further action is required*). On the other hand, a Severity Rating of 4 indicates a "Critical" finding with immediate actions needed to correct the problem. The color on the

Severity rating scale is matched to the data so it's easy to spot the problem that led to the overall Severity Rating. You also get easy to understand comments and recommendations that instruct you on what was found and what you should do about it.

Note: *If you have specific questions about your report, we offer a toll free Customer support number at 877-251-8315. This number is staffed by JG Lubricant Services lab professionals who are trained to route your call to the Analytical Department where your question will get prompt attention.*

OK, I'm sold. How do I get this service added to my RV inspection?

Just call Geoff Baker at (484) 432-9002. Tell me you'd like to add oil and coolant analysis to your upcoming RV inspection. I'll pull samples, send them in to our contracted lab for analyses and your reports will be in your email in-basket in no time.

If I want to continue this service after the inspection, how often should I have it done?

The chart below shows **Recommended Sampling Intervals** for RV engines, transmissions and generators. If you're still in my area, just give me call and I'll come and pull your samples when they're due. Otherwise, if you're not in my area, you find your nearest NRVIA certified inspector at <https://nrvia.org/locate/>. Then, just keep copies of your test reports in your maintenance file. We'll maintain the records electronically in our lab database.

| SAMPLING RECOMMENDATIONS | | |
|--------------------------|----------------------|---|
| Component | Sample Type | Recommendation |
| ENGINE | Oil | Every scheduled oil change |
| | Coolant | Annually (<i>at start of travel season</i>) |
| TRANSMISSION | Oil (<i>fluid</i>) | Annually (<i>at start of travel season</i>) |
| GENERATOR | Oil | Every scheduled oil change |
| | Coolant | Annually (<i>at start of travel season</i>) |