

Accurate News

"Accurate News" is a publication of Accurate Labs & Training Center
Stillwater, OK 74074

Accurate



Labs & Training Center

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BTEX/TPH a Slippery Subject

After all these years one of the tests we still get questions about is BTEX/TPH. Explanations often seem elusive and confusing. This is due to the complexity of the test and also to the many different versions which exist today. There is no single version of these methods accepted in every state. The EPA did not see fit to standardize a TPH method when it introduced the LUST program back in the 1980's. Thus, many states developed their own methods over the years.

Even though there are differences, there are several aspects of most TPH methods, which are in general agreement. The most important is the division of the method into two distinct ranges. The lower range is called either the purgable range or the gasoline range (GRO). In most methods it covers the hydrocarbons from C6 to C10. This range covers the light ends of gasoline and also includes the BTEX compounds, Benzene, Toluene, Ethylbenzene, and Xylenes. The higher range is referred to as the extractable range or the diesel range (DRO). It includes the hydrocarbons from C10 to C28.

These terms can be misleading since other hydrocarbons besides gasoline and diesel fuel are detected by the methods. Such things as crude oil, hydraulic fluid, mineral spirits, kerosene, and industrial solvents are also detected. However, since the methods were developed in response to leaking un-

derground storage tanks, and since those tanks were by far more likely to contain fuel than any other substance, the methods ended up being aimed at finding fuels rather than the wide variety of other chemicals mentioned above.

The difference in methods is usually in the details of how the sample is to be handled, how the gas chromatograph is to be set up, and in the QC requirements. Occasionally there are slight differences in the exact carbon range the method covers as well. A few states, such as Texas, have introduced methods which have tried to simplify things by running only one analysis for TPH, covering the whole range of C10 to C28 in one GC run. However, these methods may not be accepted in other states.

When it comes to BTEX/TPH analysis it is important to remember several things. What state dictates the method to be used? Usually the state where the samples are taken. Also, are both BTEX and TPH required? Are both GRO and DRO required? If so, be sure to specify this to your laboratory. At Accurate, if not specified we will run both ranges and BTEX. However, not all labs do this, so it is best to specify on your chain of custody which you want.

George Drye
Laboratory Manager



Tulsa Staff Grows

Accurate is glad to welcome Vernon Seaman to our Tulsa laboratory. Vernon is a veteran of the Tulsa laboratory scene, having spent the last fifteen years working for several of the area's larger laboratories. During that time he served as an analyst, a QA/QC coordinator, and a laboratory manager. Vernon will be serving Accurate as Laboratory Manager at the new laboratory in Tulsa.

Accurate will also make use of Vernon's background in quality assurance as we attempt to continue the ongoing improvement in our QA/QC program. We also hope to eventually make use of his many other talents in areas such as customer relations and in the Accurate Training Center. Feel free to call Vernon at 918-307-1115 to welcome him on board!

TCLP vs. RCRA Confusion

There seems to be a lot of confusion in the environmental community over the terms TCLP and RCRA, particularly when metals analysis is required. Both terms refer to the same eight metals, namely As, Ba, Cd, Cr, Hg, Se, Ag, and Pb. However, when the term RCRA is used, the laboratory interprets the request as a Total metals analysis (analyzing the sample as received). When TCLP is requested there is an extraction with at least 18 hours of tumbling that must be accomplished before the metals can be determined. Also, since an extraction is involved the cost is higher when a TCLP is required.

Try to avoid using the terms RCRA and TCLP together unless you truly want both analyses to be performed. If you do, make two separate entries on the chain-of-custody. You may still get a call from our log-in staff to make sure this is really what you want. We hate to see customers waste money so we are always on the lookout for opportunities to save them from unnecessary analysis. If you have any questions about this confusing area, please don't hesitate to call us. We are here to assist you.

Ken Crawford
QA/QC Coordinator

Water & Wastewater Operator Training

Accurate Training Center's Training Package

Now is the time to get on board with Accurate Training Center's Training Package. Many municipalities' fiscal year begins July 1.

Several municipalities are utilizing Accurate Training Center's Training Package for the training of their water and wastewater treatment operators. Other municipalities are reviewing the package.

The Training Package is a win-win situation for everyone involved.

- The municipalities win because they know how much to budget for their annual training. They also benefit from well-trained personnel.

- The supervisors win because the training is scheduled for a full year. This helps reduce the headaches of scheduling vacation times, maintenance, etc.

- The operators win because they receive quality, hands-on training from Accurate Training Center. This type of training can also enhance the operator's performance.

- Accurate Training Center wins because we can schedule classes more efficiently and to better suit the operators.

Now is the time to incorporate Accurate Training Center's Training Package into your 1999-2000 budget. Remember that the Training Package does not cost you an extra penny to use. All the administrative responsibility of scheduling the operators for their annual training is free.

If you would like to know more about the Training Package or would like to consider the Training Package for the training of your operators and personnel, please contact Clarke Hodson at 405-372-5300 or 1-800-516-5227.

Remember that Accurate Training Center's classes provide quality, hands-on training with a proven record of averaging 85% of our students passing the ODEQ Certification Examinations.



THM & HAA5 Analysis Underway

Starting the second quarter of this year, thirteen municipalities have requested Accurate Labs to analyze four samples from their source drinking water for total Trihalomethanes (THMs) and Haloacetic Acids (HAA5s). This request comes after an AWWA Regulatory Alert for all drinking water providers serving a population greater than ten thousand, and using a surface water as their drinking water source to monitor for THMs & HAAs. This event will take place every quarter until March of the year 2000.

As stated in the last issue of Accurate News, Accurate Labs uses approved method 552.2 to perform HAA5 analysis in conjunction with method 524.2 to analyze for THMs. Accurate Labs is one of about 20 commercial labs nation wide proficient in running the 552.2 method, and has spent a lot of time and effort to perfect this method.

At this time we at Accurate Labs would like to thank the participants that joined us in this analysis, and would like to extend our invitation for any of our clients to call us if we can be of assistance.

Dan Labus
Marketing Manager

Certification Expected

Accurate Labs new Tulsa facility underwent a pre-certification audit by the ODEQ on April 7, 1999. We expect that by the time you read this all the paperwork will be completed and the laboratory will be certified to do analysis. Although our laboratory in Stillwater has been certified for many years, this does not cover work done at a different site. The Tulsa laboratory will have its own ODEQ identification number and its own list of certified parameters.

Accurate Labs Drinking Water Analytical Services

During the 1970s and 1980s the focus of the Environmental Protection Agency and many environmental groups was on wastewater and toxic waste. This has slowly shifted and in the 1990s more and more attention is being paid to the water we drink. For this reason Accurate Labs has devoted much of its development efforts in the last few years to instruments and methods for drinking water testing.

Up until the middle part of the 1990s the State of Oklahoma did not allow commercial laboratories to perform drinking water analysis. As soon as this changed, Accurate began preparing for and obtaining certification from the Oklahoma Department of Environmental Quality. At about this same time the EPA began the Information Collection Rule (ICR) and set about certifying labs for the testing that was to be performed for this program. Accurate also applied for and received certification from the EPA for many of the test methods used under the ICR.

At the time we were not aware how few labs in the United States were really qualified to perform many of these more exotic tests, such as disinfection byproducts, herbicides, and pesticides. In fact there are fewer than 100 labs in the U.S. that participated in the EPA's Water Supply Study and ICR study for these parameters, and about 80% of these were municipal labs. Only about 20 commercial labs are capable of performing a wide variety of drinking water tests. The majority of these are on the east and west coasts, leaving Accurate as practically the only lab in the central part of the country that specializes in drinking water testing.

Over the last few years Accurate has spent several hundred thousand dollars on new equipment and many hundreds of hours in development time trying to perfect the methods needed to do this testing. We have added gas chromatographs with electron capture detectors, nitrogen-phosphorus detectors, and mass selective detectors. Also added were an Ion Chromatograph and an HPLC with conductivity and fluorescence detectors. All these instruments are needed due to the complexity of testing for the wide variety of compounds which may pollute our most valuable resource.

All this effort has allowed Accurate to become the lab of choice for both private citizens and drinking water systems in Oklahoma and across the country. In fact, we have analyzed samples from countries as far away as Russia. Sometimes the analysis is as simple as determining the salt content of water or perhaps checking for specific ions. Other times our clients demand a "comprehensive" analysis, including metals, salts, volatile organics, pesticides, herbicides, and other more exotic compounds. Whatever the need, Accurate strives to provide "state of the art" analysis backed by a comprehensive Quality Assurance program.

So, whether your need is for a simple check of water quality or for something so exotic you can't pronounce it you can rely on Accurate Labs to provide superior analysis of water.

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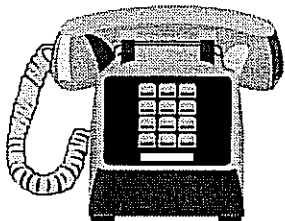
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Accurate Labs will pick up your samples along seven statewide routes. Please call.



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