

On-site Dissolved Gas Analysis (DGA)

Periodic analysis of dissolved combustible gases in the oil is the most common predictive maintenance practice for power transformers. In conventional DGA analysis, the oil sample is sent to a remote laboratory for analysis.

Quality Services Laboratories brings the laboratory to your transformer!

Testing is performed on-site with the Kelman, Transport X™ portable gas chromatograph. It utilizes new technology (photo-acoustics) to determine the concentrations (ppm) of all dissolved combustible gases (hydrogen, methane, ethane, ethylene, acetylene, carbon monoxide and carbon dioxide) and moisture content in the oil in *only a few minutes* and at a competitive price.

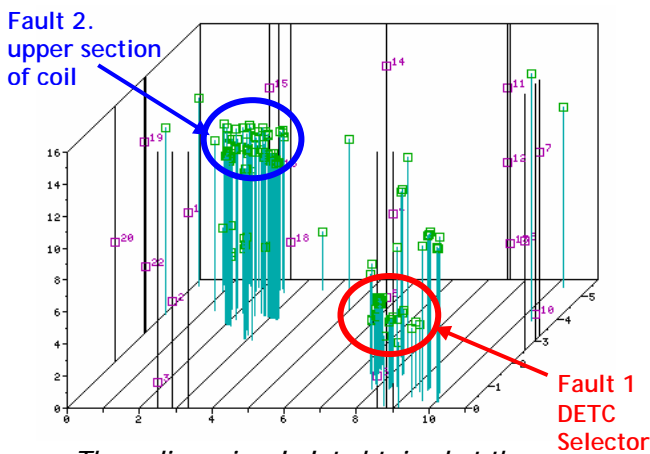
Once concentrations of combustible gases are obtained, an analysis by eight different techniques is applied to determine the type of fault present in the power transformer.

Applications include:

- Transformers
- Circuit breakers
- Load Tap Changers

Some advantages of performing the analysis on-site are:

- **Immediate Results.** There's no need to wait several days for the syringe to arrive to the laboratory so that the analysis can be performed and the report prepared.
- **No shipping costs.**
- **No risk of damaging the sample due to shipping and handling.**



Three dimensional plot obtained at the end of an Acoustic Emission test.

- **Instant re-sampling for verification.** If there is a need to verify the results, either because of a bad sample or due to abnormal results obtained, this can be done right away at the plant.
- **Ideal for emergency situations.** Provides timely results to assist in the decision making process in critical gassing units.

To obtain a complete condition assessment of the unit, Quality Services Laboratories (QSL-Plus) also provides additional on-line testing techniques, including Acoustic Emission (AE), to locate faults that causes gassing.

Find out more about on-site DGA and AE testing of power transformers; call (610) 497-0400 today!

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