

ISO 17025:2005

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June 2016

# New Training Session Machine Lubricant Analyst Level II and III Preparation Class

Dates: Monday September 12 to Thursday Sept 15, 2016

8:00 AM to 4:00 PM

Price: US \$1 395, lunch and coffee included

Location: Tribologik Corporation

1212, 172nd St. Hammond, IN 46321

Information: Jaime Burkhard

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Office: 219.228.4844 x 204

Certification Exam (Optional): International Council for Machinery Lubrication

Friday, September 16, 2016, 8:30 AM- 11:30 AM

US \$275 extra

**Exam registration/payment**: No later than **2 weeks before session** 

On ICML website http://lubecouncil.org

### In Partnership with AMRRI

Following the success of the March 2016 Machine Lubricant Analyst Level I preparation class, we have decided to continue with Level II and III, in partnership with Advanced Machine Reliability Resources Inc. (AMRRI).



This new session is the direct result of PMC/Tribologik's commitment to promoting and training on the best lubrication, maintenance management and oil analysis practices.

The September 2016 class will taught by *Matt Spurlock*, whose March presentation had been highly appreciated by all attendees.

Matt is AMRRI's VP of Operations and Technology and lead trainer.

#### **MLA Level II and III Course Outline**

The Level II MLA Body of Knowledge is an outline of concepts that a candidate shall have in order to pass the exam, in accordance with ISO 18436-4, Category II and III respectively, Annex A.

#### **Lubricant roles and functions**

- Base oil
- Additive functions
- Synthetic lubricants
- Lubrication regimes

#### **Maintenance Strategies**

- Fundamental aspects of Reliability-Centered Maintenance (RCM)
- Fundamental aspects of Condition-Based Maintenance (CBM)

#### **Oil Sampling**

- Objectives for lube oil sampling
- Equipment specific sampling :
- Sampling methods
- Managing interference
- Sampling process management

#### **Lubricant health monitoring**

- Lubricant failure mechanisms
- Testing for wrong or mixed lubricants
- Fluid properties test methods and measurement units
- Oxidative base oil failure
- Thermal base oil failure
- Additive depletion/degradation
- Detecting wrong lubricant addition

### Lubricant contamination measurement and control

- Particle contamination
- Moisture contamination
- Glycol coolant contamination
- Soot contamination
- Fuel contamination (fuel dilution in oil)
- Air contamination (air in oil)

#### **Wear Debris Monitoring and Analysis**

- Common wear mechanisms
- Common Machine-specific Wear Modes
- Detecting abnormal wear
- Wear debris analysis
- Ferrous Density
- Analytical Ferrography

## Oil analysis program development and program management

- Machine-specific test slate selection
- Optimizing frequency of analysis
- Setting alarms and limits
- Managing oil analysis information
- Creating and managing oil analysis procedures
- Scoping oil analysis training for reliability technician, trades people and management
- Performing cost/benefit analysis for oil analysis and contamination control program
- Quality Assurance

Case Studies - Team Review and Presentation of Solution

Please contact Jaime Burkhard for additional information <a href="mailto:jaime@tribologik.com">jaime@tribologik.com</a> - Cell 260.579.5424 - Office: 219.228.4844 x 204

Or go to : <a href="http://www.tribologik.com/training.php">http://www.tribologik.com/training.php</a>