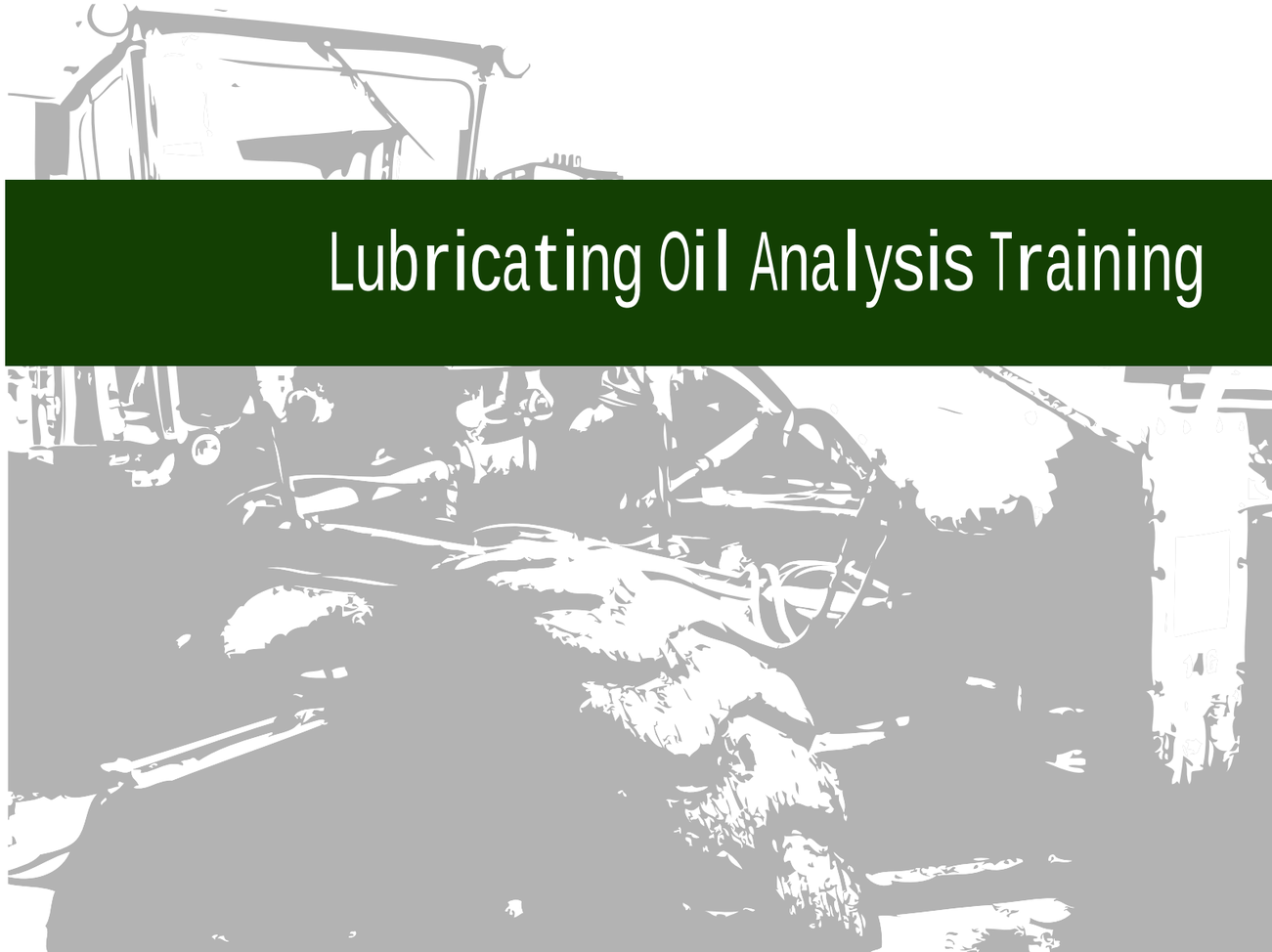
TECHNO RADA

TECHNO RADA SDN. BHD.
1st Floor, Lot 2333,
Bulatan Commercial Center,
Jalan Dato Muip, Piasau, CDT 8,
98008 Miri, SARAWAK, Malaysia
Tel +6 085 656604 / 664957 | Fax : +6 085 665267 | Email : trhq@technorada.com
http://www.technorada.com

Lubricating Oil Analysis Training



Lubricating Oil Analysis Training

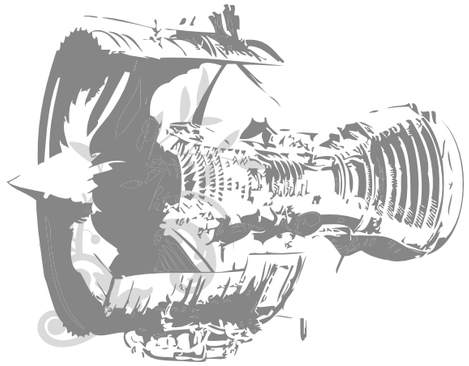
ABOUT TECHNO RADA

TECHNO RADA SDN BHD is a 100% Malaysian Bumiputra company in equity and participation formed by experienced oil industry professionals.

TECHNO RADA's incorporation with the Malaysian Authorities dates from 2002, and was awarded a PETRONAS Operating Licence in 2004.

TECHNO RADA's activities are performed under PETRONAS Licence No. L-575630-U. This Licence covers the provision of Subsurface and Surface Services, in addition to the supply of Training, Materials, Installations and Personnel for the Malaysian Petroleum Industry.

Our task is to provide trustworthy, effective and competitive products and services, including training, to the Malaysian petroleum and petrochemical industry. We can provide from high quality surface equipments to advanced subsurface technology, and training and advice for their effective implementation.



TRAINING OVERVIEW

Oil related failures are a major concern to the industry, as they represent an unlimited cost in terms of breakdowns, repairs and replacements etc. How can we avoid them? There are 3 main steps to control this:

- An effective Oil analysis programme
- Regular equipment maintenance
- Use of correct lubricants

The Oil analysis program identifies the wear occurring within an engine by establishing a progressive trend of wear metals and contaminants in oil. This enables one to act rather than react to their equipment repair needs.

In addition, the program also allows one to compare an oil's performance over time and thereby optimize the oil change intervals according to the machine applications. Together with our expert in lubrication oil analysis, Zahir you will learn the use of oil analysis tools to identify and correct the problems in your equipment as well as preventative maintenance. This course is aimed at developing an increased understanding of the importance of oil analysis and equips one to respond to repair indicators with confidence and skill.

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BENEFITS

- Problem Identification
- Maintenance Planning
- Reducing repair time
- Analysis report
- Equipment trade ins
- Optimizing oil change intervals

TRAINING AGENDA

Training Objectives
Understanding Lube Oil
- *Crude Oil*
- *Refining Crude Oil*
- *Base Oil*

Oil Additives & their significance
- *Types/Functions of additives*
- *Additives in Engine Oils*
- *TBN Values*
- *Sulphur in Fuels*
- *Oxidation of Oil (causes & indicators)*

Test for Contamination Analysis
- *Spectrometric Analysis (ICP)*
- *PQ Index*
- *Particle Counting*

Interpretation of Particle Count Results
- *NAS & ISO Cleanliness Codes*
- *Hydraulic & Transmission oils contamination*

Physical Tests
- *Fuel Dilution*
- *Presence of water and its detection*
- *Dispercancy*
- *Viscosity*
- *Soot in Engine Oils*

Reports Interpretation
Wear metals in Engines & machines
Oil Contamination-Indicators & Causes
Trouble shooting guide
Case Studies (if time permits)
Choosing a Laboratory

WHO SHOULD ATTEND

- Lubrication Managers & Engineers
- Operations Managers & Engineers
- Rotating Equipment Managers & Engineers
- Plant technicians
- Tradesman & fitters
- Condition Monitoring Personnel
- Chemists
- Lab Analysts
- Lubricant Diagnosticians
- Vibration Instrument Personnel
- Maintenance professionals

ABOUT YOUR TRAINER

Zahir Shamsi is the Regional Manager of Brisbane Tribology Division of ALS Laboratory Group, which offers a wide range of wear testing services that include standard engine oils, hydraulics, transmissions, turbines, refrigeration, compressors and more. The laboratory also performs fuel analysis, engine coolant analysis, filter analysis and grease analysis. Zahir Shamsi is the key person responsible for the overall operations of the Brisbane laboratory as well as quality controls and HSE. He also provides technical consultation services and training to various international locations having covered over 230 oil analysis and condition monitoring workshops
for many leading organizations. The clients include :
- Castrol
- BP
- Esso
- Shell
- Volvo
- Mack
- Petronas
- TNB Research
- Singapore Petroleum Company
- Fuchs
- Caltex Oil Refinery
- Conoco Singapore
- Royal Australian Navy
- Matsushita Environmental Engineering (M) S/B

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