

[Sludge Cuts Oil Service Life](#)

The presence of sludge in hydraulic oil can significantly reduce the service life of the oil. For example, with one percent sludge in an inhibited hydraulic oil, service life is reduced by nearly 40%.

Congratulations to Art Durnan, Maintenance and Reliability Manager, Kennecott Energy Company - the winner of last week's Readers Challenge - Justifying an Oil Analysis Program.

[See the winning response, as well as other responses.](#)

Each tip published will earn the sender \$75. [Submit your tip.](#)

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Book Bits: Synthetic Oil Case Study

From "The Practical Handbook of Machinery Lubrication"

A Canadian company engaged in the operation of several compressors experienced a problem where high temperatures caused the compressor oil to oxidize. The oxidized oil formed carbon deposits in the discharge pipes, which in turn created several discharge pipe hot spots. Conditions became such that a severe explosion occurred and a catastrophic failure resulted.

Compressor oil oxidation problems have been eliminated through the use of a diester-type synthetic compressor lubricant designed to resist high temperatures and deposit formation. [Editors Note: this is one of the many synthetic lubricant case studies in this book.]

[More information about the book "The Practical Handbook of Machinery Lubrication"](#)

Sponsor: Breather Tips from Des-Case® - Don't forget about pump protection!

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Lube-Trivia: Additives Affect Test Results

Test your knowledge and prepare for [ICML](#) lubrication and oil analysis certification.

QUESTION: What types of additives might adversely affect the accuracy of Karl Fischer water measurements?

[Get the answer.](#)

Q & A: What's an RPVOT?

"What is the RPVOT test? How are the results used?"

ASTM D2272, RPVOT (Rotating Pressure Vessel Oxidation Test) is a test that determines the oxidation stability of an oil. RPVOT, as opposed to FTIR, acid number, viscosity, and other tests, measures the actual resistance to oil oxidation (combination of base oil robustness and the concentration of unconsumed

antioxidants) whereas these other tests detect oxidation that is already present in the oil. RPVOT is a more proactive approach because you can respond to pending problems before permanent harm is done to the oil or machine. The test is ideal for large oil volumes with low makeup fluid requirements and also severe-duty applications.

Results are reported in minutes and are trended against the RPVOT of the new oil. The new oil base line can be used to convert RPVOT readings to remaining useful life (RUL) as a percentage of the new oil (100%). Typically the caution limit is at 40% RUL and a critical limit at 25% RUL, but this varies by application. It is important to note that it may take a relatively long time to get to the caution limit but take relatively short time from there to reach the critical limit.

[Submit a question](#)

Post of the Week: Sodium Appears in Hydraulic Oil

To reward the lubrication and reliability community for its participation in the Noria [Message Boards](#), we've started the [Post of the Week award](#). Every week, we award one lucky member \$50.

This week's award goes to:

Lube MATE (Silver Member)

Here's an excerpt from the post:

"Sodium is generally from coolant additives, but if it's not a water cooled system like you've said, then consider looking at what content is in the dust around your machine. Take 2 fresh samples and leave one open to the atmosphere for a while, then send both off to your lab. This will give you information on what is typical of your environment your machine is in." [See the entire post.](#)

Resources



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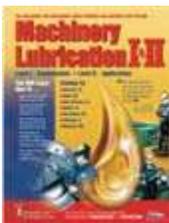
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Training Calendar

MAY 2004

Machinery Lubrication I
18-19 Point Lisas, Trinidad
18-20 Orapa, Botswana
25-26 Monterrey, Mexico
26-28 Sao Paulo, Brazil

Oil Analysis I
19-20 Buenos Aires, Argentina
19-21 Daegu, South Korea
24-25 Austin, Texas
24-25 Barcelona, Spain

Oil Analysis II
26-27 Austin, Texas
26-27 Barcelona, Spain

JUNE 2004

Best Practices for Machinery Lubrication
9-11 Bangkok, Thailand

Machinery Lubrication I
7-8 Chicago, Illinois
8-10 Madrid, Spain
16-17 Antofagasta, Chile
22-24 Francistown, Botswana
28-29 Chester, Cheshire, United Kingdom

Machinery Lubrication II
9-10 Chicago, Illinois
June 30 - July 1 Chester, Cheshire, UK

Oil Analysis I
7-8 Francistown, Botswana
15-16 Sowa Town, Botswana
16-18 Gdansk, Poland
21-22 Chester, Cheshire, United Kingdom

Oil Analysis II
23-24 Buenos Aires, Argentina
23-24 Chester, Cheshire, United Kingdom

Técnicas de Lubricación
30 León, Mexico

Análisis de Aceite para Equipo Móvil
28-29 León, Mexico

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