

news release

Caltex Lubricants launches proprietary industrial holistic Varnish solution, offers maximum compatibility

Dubai, UAE, April 7, 2021 — Chevron Al Khalij, which markets Caltex Lubricants, today announced the introduction of the VARTECH™ Industrial System Cleaner (ISC) in the Middle East and Africa regions.

Caltex Lubricants' new VARTECH ISC brings advanced technology to remove varnish buildup in oil systems, where Chevron's proprietary technologies work as a holistic two-step clean-and-control solution to help operators reduce the threats of varnish. These technologies are marketed as **VARTECH ISC** and selected **GST® Turbine Oils** formulated with **VARTECH Technology**:

- 1. **VARTECH ISC:** This is Step One of Caltex Lubricants' new VARTECH holistic varnish control solution. The advanced chemistry in this product allows operators to clean existing varnish out of their equipment system to prepare it for fresh oil.
- 2. Selected GST Turbine Oils formulated with VARTECH Technology: This is Step Two of VARTECH's holistic varnish control solution, where the freshly cleaned system from Step One is subsequently filled with the appropriate GST Advantage turbine oil for the operation. Selected GST turbine oils formulated with VARTECH Technology proprietary technology to help limit the precursors that can precipitate out of oil leading to varnish formation.

"In speaking to our customers, we recognized that industrial operators have long been aware of the potential damage from varnish that can inevitably impact their operations. Even the smallest amount of varnish can result in poor system performance and equipment failures on modern turbine systems Remarkably, varnish and the difficulties that come with it have been accepted as a perennial issue that is part and parcel of the industry. Our goal is to encourage customers to see that this issue can actually be managed," said Mr. Douglas Rankine, General Manger, Finished Lubricants, Middle East and Africa. "To enhance our overall customer experience, our technical experts at Chevron have developed VARTECH ISC, a proprietary cleaning product that can be directly added to the oil in use during operation, so as to clean the system of varnish and sludge before a scheduled oil change."

Triple-action technology

VARTECH ISC utilizes proprietary technology to clean efficiently without creating operational constraints. The solution is added near the end of the life of the in-service oil; and it cleans existing varnish from the equipment while the equipment itself remains online and productive. It delivers results by:

- 1. Cutting through hard varnish, removing it as micro-sized varnish particles.
- 2. **Capturing** and stabilizing the micro-sized varnish particles in a protective barrier to enable effective removal of the varnish from the system without re-depositing in the equipment; and

3. Providing **compatibility** with the in-service oil for optimal operational flexibility while maintaining system performance during the cleaning cycle to prepare for the change out to fresh oil.

Cleaning without compromise

Once the cleaning process is complete, VARTECH ISC and the used oil are drained and the system is flushed, preparing it for fresh oil. VARTECH ISC can also remain in the system for up to four weeks without causing operational constraints, giving industrial enterprises the flexibility to schedule maintenance activities around other operational priorities and unexpected delays.

Unlike other industry solutions, VARTECH ISC has minimal impact on the performance of new oil. VARTECH ISC's excellent compatibility cuts down the cleaning process significantly, mitigating complex additional steps such as external filtration, multiple rinse cycles and compatibility testing with fresh oil. Depending on the extent of varnish in the system, VARTECH ISC can be used for up to 20 percent treat rate without compromising the performance of new oil (arising from any residual oil that is left over).

VARTECH ISC has been successfully trialed by several customers on GE and Solar turbines. Recently, VARTECH ISC helped restore a major customer's equipment in San Joaquin Valley, California by removing varnish from its turbine oil coolers, thus returning the turbine oil coolers to maximum productivity for an annual revenue gain of over US\$350,000¹. For more information, please refer to the case study in the media kit, available here.

Availability

VARTECH ISC is available across all major markets in the Middle East and Africa to support the requirements of industrial customers in power generation, oil and gas, and manufacturing segments. Complementing this is Caltex Lubricant's Reliability-based Lubrication (RBL™) Program which offers a suite of tailored services like operational assessments, best practices and oil analysis.

For more information on the product, please visit the <u>Varnish page</u> or contact a local Caltex Lubricant representative.

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¹ Illustrative example only. Results will vary depending on equipment type, operating conditions, and utility costs etc.

About Chevron

Chevron Corporation is one of the world's leading integrated energy companies. Through its subsidiaries that conduct business worldwide, the company is involved in virtually every facet of the energy industry. Chevron explores for, produces and transports crude oil and natural gas; refines, markets and distributes transportation fuels and lubricants; manufactures and sells petrochemicals and additives; generates power and produces geothermal energy; and develops and deploys technologies that enhance business value in every aspect of the company's operations. The 85-year young Caltex™ brand is Chevron's customer-facing brand in Asia Pacific and parts of the Middle East and Africa. For more information, visit me.caltexlubricants.com.

About Chevron Al Khalij

Chevron Al Khalij (registered in the UAE) is a branch of Chevron Asia Pacific Holdings Limited.

A full line of lubrication and coolant products are marketed through this entity including Havoline®, Delo® and GST. Chevron Intellectual Property, LLC owns patented technology in advanced lubricants products, new generation base oil technology and coolants.

For more information, go to: me.caltexlubricants.com

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