

# It's OIL good



**T**o the uninitiated, lubricating oil doesn't sound sexy. But it is essential.

Lubricating oil is what keeps our cars running, our planes in the air and mining and farming equipment going – it literally lubricates the wheels of commerce and industry. It also doesn't wear out – it just gets dirty and the additives in the oil lose effectiveness over time. These contaminants can be removed and the oil restored to its original condition through re-refining.

Unfortunately, about 64 per cent of the 350 million litres of waste lube oil that is collected in Australia every year is burned or exported to be burned overseas, destroying a valuable and re-useable commodity and damaging the environment in the process.

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Used oil contains compounds that are potentially harmful, including polyaromatic hydrocarbons, chlorinated hydrocarbons, heavy metals and dioxins/furans. These chemicals are known carcinogens and mutagens. Waste oil, if unregulated or burned at low temperatures, can potentially release a range of these toxic compounds directly into the environment. The mishandling of waste oil also puts our

waterways at risk, with as little as one litre of oil capable of contaminating one million litres of water.

Southern Oil Refining and J.J. Richards & Sons back a re-refining future, and invested \$65 million to build the state-of-the-art Northern Oil Refinery at Yarwun, near Gladstone.

The Northern Oil Refinery means

QUEENSLAND'S TAXI INDUSTRY CAN NOW TAKE A LEADERSHIP ROLE IN WASTE MANAGEMENT BY CHOOSING TO SEND ITS WASTE LUBE OIL – AT NO EXTRA COST TO CURRENT DISPOSAL AND RECYCLING PRACTICES – TO THE WORLD'S MOST ADVANCED OIL RE-REFINERY, BASED IN GLADSTONE.

Queensland and other regions of Australia have the best option for their waste lube oil – using cutting-edge recycling technology to re-refine a hazardous waste product into a valuable commodity that can be used again and again at no extra cost to existing disposal and recycling practices.

The re-refinery has the capacity to process a third of Australia's annual production of waste lube oil, underwriting a new industry and jobs in regional Queensland.

Since opening in March 2014, the Northern Oil Refinery has produced 30 million litres of base oil from waste lube oil – enough to run six million cars in Australia for a year – and reduced CO<sub>2</sub>e emissions by more than 140,000 tonnes compared to waste oil burning.

The re-refined lube oil produced uses 60 per cent less energy to create compared

to the production of lube oil from crude oil, all of which is imported into Australia, while the carbon footprint of re-refining is just an eighth of the carbon released by waste oil burning.

The re-refining process used in Gladstone also produces no waste. Every component is re-used and 99 per cent of the lube oil component in the waste oil recovered as high quality lube oil, which is tested to meet quality standards under the national *Product Stewardship (Oil) Act*. This process is also measurable against life cycle KPIs, making it easier for industry players to assume more responsibility for the full life cycle of waste oil and the waste produced by re-refining.

The Northern Oil Refinery's combination



of environmental, sustainability and local employment values saw it awarded the 2015 Queensland Premier's Award for Innovation in Sustainable Technologies and named as a finalist in the Smart Technology category of the 2015 Banksia Foundation Sustainability Awards.

## HASSLE-FREE COLLECTION THROUGHOUT QUEENSLAND

J.J. Richards & Sons has been providing a 'safe pair of hands' and supporting corporate reputations through exemplary waste management practices for more than 80 years.

The company's unmatched geographical coverage means your waste lube oil can be collected – hassle-free, compliant with all legislation and at no additional charge to your current service provision – from anywhere in Queensland to undergo the best and most environmentally responsible treatment.

J.J. Richards & Sons' \$12 million state-of-the-art oily water treatment plant at Wacol, for example, is central to closing the recycling loop on waste oil.

Wacol is the first facility of its kind in Australia to use innovative G-Force technology to efficiently process and treat hard to manage oily liquids, including waste oil, oily water and oily sludges. The outputs from the process are oil, treated water and solids, all of which are easily managed under environmental licence and with no risk to community or environment health.

The facility can process mixtures of water, fuel oils, hydraulic oils, detergents and additive chemicals, a capability that is critical as many industrial businesses do not have the capacity or inclination to separate waste oils and oily waters into distinct, manageable waste streams.

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The oil that is recovered at the Wacol facility is sent to Gladstone and the Northern Oil Refinery, where it is re-refined and recycled back into base oil for re-use in the automotive, transport, mining and agricultural sectors.

J.J. Richards & Sons also has operations in New South Wales, Victoria, South Australia and the Northern Territory.

## ENHANCE YOUR ENVIRONMENTAL CREDENTIALS AND REPUTATION FOR NO ADDITIONAL COST

High-end re-refining to recover base oil for re-use is the most environmentally responsible treatment of waste lube oil and should be the process of choice for any used oil producer that is committed to its environmental credentials and reputation.



By dedicating their waste oil for re-refining in Queensland, taxi owners and operators can demonstrate their commitment to local content policies, support jobs in regional Queensland and contribute to a better environmental future – all at no extra cost to current disposal and recycling practices.

For more information contact Southern Oil Refining and J.J. Richards & Sons. ●

