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GMG Announces Internal G[®] Lubricant Testing Results Showing 10% Fuel Savings and 33% Reduction in Particulate Emissions

BRISBANE, QUEENSLAND, AUSTRALIA – Graphene Manufacturing Group Ltd. (TSX-V:GMG) (OTCQX: GMGMF) (“GMG” or the “Company”) is pleased to announce the following internal GMG run engine test results when G[®] Lubricant was added to a Caterpillar 22 kVA diesel engine run at an 80% Load. Test results show a 10% increase in energy efficiency (kwh/litres), and also a 33% reduction in harmful diesel engine exhaust particulate matter emissions, when three doses of G[®] Lubricant, with a maximum graphene dosage of 0.03%, was added to the standard diesel engine oil.

It is noted that the test engine was not operating optimally before G[®] Lubricant was added – the engine was overheating at long runs of sustained high loads. As a result, after the initial dose of G[®] Lubricant was added, an additional two dosages of G[®] Lubricant were used to hopefully bring the engine into a more stable operating regime, an outcome that was generally achieved.



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Figure 2 and 3 show the table and graph distribution of engine efficiency of the various dosages of G[®] Lubricant versus the baseline.

Baseline Diesel Engine Oil Engine Efficiency (kwh/litres)	G [®] Lubricant (0.01%) Engine Efficiency (kwh/litres)	G [®] Lubricant (0.02%) Engine Efficiency (kwh/litres)	G [®] Lubricant (0.03%) Engine Efficiency (kwh/litres)
3.04	3.36 (10% increase)	3.35 (10% increase)	3.36 (10% increase)

Figure 2: Engine Efficiency Performance Increase from G[®] Lubricant

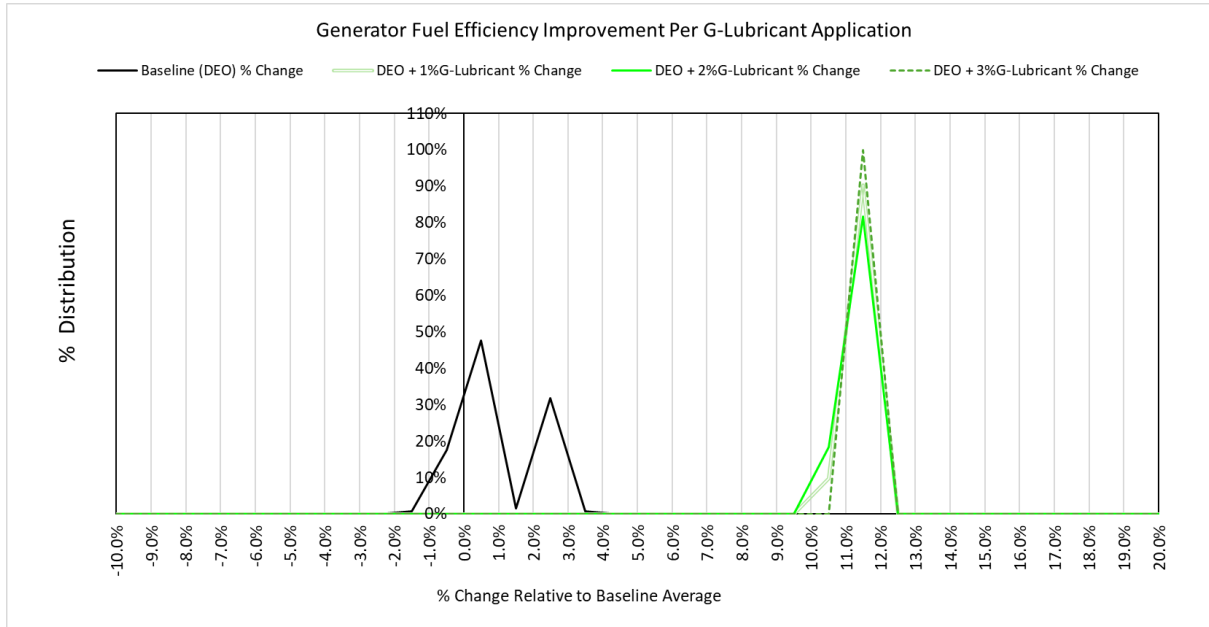


Figure 3: % Distribution of Fuel Efficiency Relative to Baseline

Figures 4 and 5 show the table and graph distribution of diesel engine particulate matter emissions of the various dosages of **G[®] Lubricant** versus the baseline.

Baseline Diesel Engine Oil Particulate Matter (ppm)	G[®] Lubricant (0.01%) Particulate Matter (ppm)	G[®] Lubricant (0.02%) Particulate Matter (ppm)	G[®] Lubricant (0.03%) Particulate Matter (ppm)
20.97	15.56 (26% reduction)	14.55 (31% reduction)	13.97 (33% reduction)

Figure 4: Engine Emission Particulate Matter Reduction from G[®] Lubricant

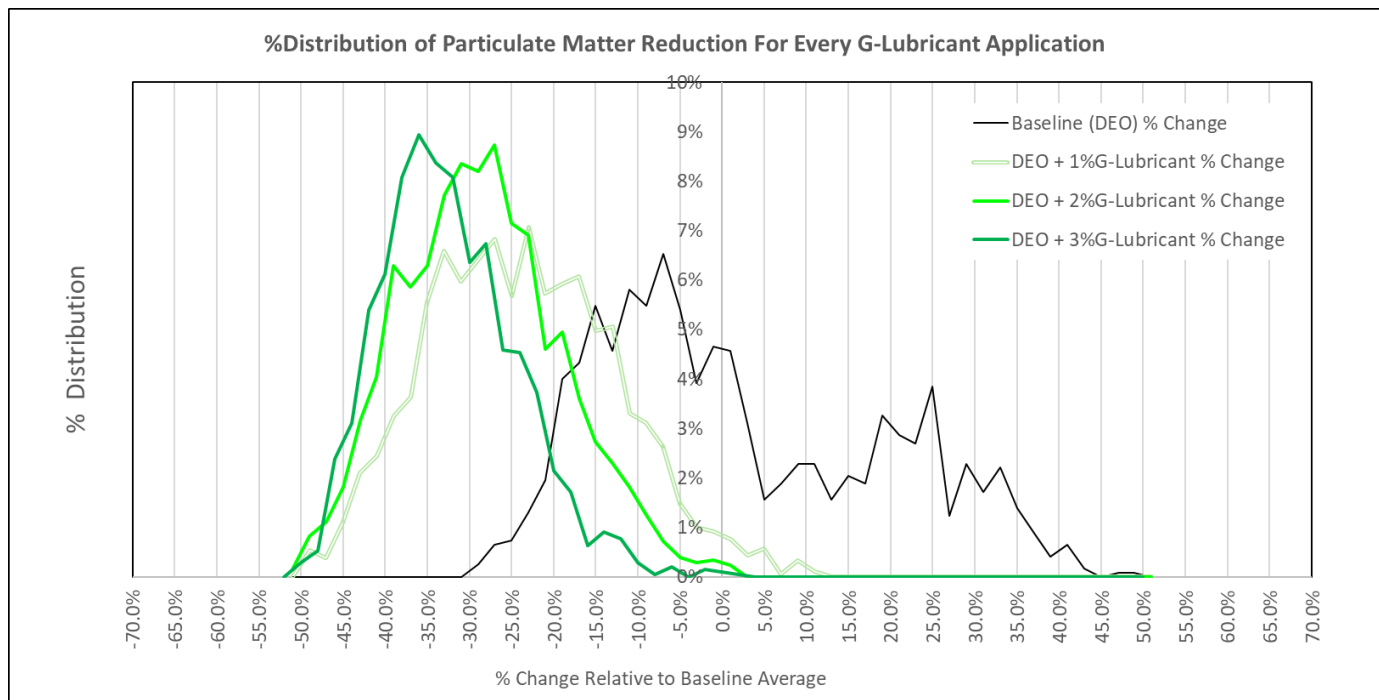


Figure 5: % Distribution of Particulate Matter in Emissions Relative to Baseline

Figure 6 shows the exhaust emissions of the diesel engine at various dosages of **G® Lubricant**, versus the baseline which shows similar levels as the baseline test runs. More testing is being done to get more detail on the impact of G® Lubricant across engine emissions.

	% O2	ppm CO	ppm NO	% CO2	°C FT	ppm NOx	ppm NO2
Baseline (DEO)	7.8	151.5	359.6	9.8	30.0	362.2	2.7
DEO + 1% G® Lubricant	7.5	161.3	383.5	10.0	28.1	386.7	3.3
DEO + 2% G® Lubricant	7.5	170.6	377.0	10.0	27.6	379.8	2.8
DEO + 3% G® Lubricant	7.4	184.8	388.7	10.1	28.4	391.4	2.7

Figure 6: Emissions Data for G® Lubricant Relative to Baseline

Detailed Equipment and Process for Testing G® Lubricant

The following describes the equipment used and the process followed by the Company in demonstrating the fuel saving demonstration of the **G® Lubricant** in the diesel engine generator:

- The same testing equipment, data systems and processes were used which was verified by the University of Queensland and detailed in GMG's previous press release on the 25th February, <https://graphenemg.com/gmg-unveils-g-lubricant-engine-performance-testing-results-a-transformative-graphene-energy-saving-solution-for-the-multi-trillion-dollar-global-liquid-fuel-industry/>
- GMG also added the following testing equipment to the testing program:
 - Testo 340 Diesel Kit 2 engine emissions test kit which was newly calibrated by the third-party supplier
 - PDSA DPM-RT-2 particulate matter test unit which was newly calibrated by the third-party supplier.
- A 22kVA Caterpillar diesel engine generator (with 1,959 hours of run time) was setup in the GMG Richlands warehouse.
- The generator was connected to a 40-kW power load bank which consumed the energy produced by the generator and created the load and a 500-litre self-contained fuel tank.
- Two calibrated flow sensors were connected (inflow and return/outflow) to the fuel lines and to a data logger which recorded the fuel consumption.
- An Energy Analyzer was used to log and track energy produced by the generator.
- Tests were conducted on 80% loads of the engine from the 40-kW power load bank – 22 kW.
- A baseline to record diesel fuel consumption under normal engine oil and operating conditions was completed with newly changed recommended premium diesel engine oil and a new oil filter. This oil change was carried out by a professional engine maintenance service company.
- The engine was run at 80% load and the baseline and **G® Lubricant** data set used for the analytics is when the maximum ambient temperature for the day was less than 33 degrees Celsius and relative humidity was between 50% and 80% with no rain. Fuel consumption for diesel engines changes when operating in rain or very high humidity or temperatures, so the fuel consumption data baseline and **G® Lubricant** engine oil additive performance testing were excluded for these times.
- Only steady state data was used and so any variance or anomalous data seen in either baseline or **G® Lubricant** datasets were removed from the analytics. Data sets were grouped into minute blocks.
- Once the baseline fuel tests were completed, **G® Lubricant** with approximately 1:100 concentration was mixed at approximately 1% ratio by weight into the existing engine oil. This

was done another 2 times. The end ratio of GMG's Graphene to the diesel engine oil was approximately 3:10,000 by weight.

GMG's Managing Director and CEO, Craig Nicol, commented: "**G® Lubricant** is not only increasing fuel efficiency it is also reducing particulate matter – which is amazing to see – we will need to do more tests to see what the long-term performance is for this."

GMG is continuing to conduct more tests to determine the total performance regime of the **G® Lubricant**. These performance tests will be announced as the information becomes available.

GMG's Chairman and Director, Jack Perkowski, commented: "Fantastic news – **G® Lubricant** testing data are exciting – well done to the team – showing great promise as a way to reduce fuel costs and emissions across the multi-trillion dollar liquid fuels industry."

About GMG:

GMG is an Australian based clean-technology company which develops, makes and sells energy saving and energy storage solutions, enabled by graphene manufactured via in house production process. GMG uses its own proprietary production process to decompose natural gas (i.e. methane) into its natural elements, carbon (as graphene), hydrogen and some residual hydrocarbon gases. This process produces high quality, low cost, scalable, 'tuneable' and low/no contaminant graphene suitable for use in clean-technology and other applications.

The Company's present focus is to de-risk and develop commercial scale-up capabilities, and secure market applications. In the energy savings segment, GMG has initially focused on graphene enhanced heating, ventilation and air conditioning ("HVAC-R") coating (or energy-saving coating) which is now being marketed into other applications including electronic heat sinks, industrial process plants and data centres. Another product GMG has developed is the graphene lubricant additive focused on saving liquid fuels initially for diesel engines.

In the energy storage segment, GMG and the University of Queensland are working collaboratively with financial support from the Australian Government to progress R&D and commercialization of graphene aluminium-ion batteries ("G+Al Batteries"). GMG has also developed a graphene additive slurry that is aimed to improve the performance of lithium-ion batteries.

GMG's 4 critical business objectives are:

1. Produce Graphene and improve/scale cell production processes
2. Build Revenue from Energy Savings Products
3. Develop Next-Generation Battery
4. Develop Supply Chain, Partners & Project Execution Capability

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This news release includes certain statements and information that may constitute forward-looking information within the meaning of applicable Canadian securities laws. Forward-looking statements relate to future events or future performance and reflect the expectations or beliefs of management of the Company regarding future events. Generally, forward-looking statements and information can be identified by the use of forward-looking terminology such as “intends”, “expects” or “anticipates”, or variations of such words and phrases or statements that certain actions, events or results “may”, “could”, “should”, “would” or will “potentially” or “likely” occur. This information and these statements, referred to herein as “forward-looking statements”, are not historical facts, are made as of the date of this news release and include without limitation, the potential of G[®] Lubricant to optimize efficiency and power for stationary or mobile engines, the potential of G[®] Lubricant to reshape the future of the global liquid fuels industry, GMG’s intention to commercialise and market G[®] Lubricant, the progress of the Company’s patent applications, the potential market for G[®] Lubricant and the potential revenue available for G[®] Lubricant.

Such forward-looking statements are based on a number of assumptions of management, including, without limitation that G[®] Lubricant has the potential to optimize efficiency and power for stationary or mobile engines, that G[®] Lubricant has the potential to reshape the future of the global liquid fuels industry, that GMG will commercialize and market G[®] Lubricant, that the Company’s patent applications will progress as anticipated, and that the potential market and revenue available for G[®] Lubricant will be as currently forecasted. Additionally, forward-looking information involves a variety of known and unknown risks, uncertainties and other factors which may cause the actual plans, intentions, activities, results, performance or achievements of GMG to be materially different from any future plans, intentions, activities, results, performance or achievements expressed or implied by such forward-looking statements. Such risks include, without limitation: that G[®] Lubricant will not offer an innovative solution that optimizes efficiency and power for stationary or mobile engines, that G[®] Lubricant will not reshape the future of the global liquid fuels industry, that GMG will commercialize and market G[®] Lubricant as anticipated, that the Company’s patent applications will not progress as currently anticipated, that the potential market and revenue available for the G[®] Lubricant product is not as currently calculated, risks relating to the extent and duration of the conflict in Eastern Europe and its impact on global markets, the volatility of global capital markets, political instability, the failure of the Company to obtain regulatory approvals, attract and retain skilled personnel, unexpected development and production challenges, unanticipated costs and the risk factors set out under the heading “Risk Factors” in the Company’s annual information form dated October 3, 2024 available for review on the Company’s profile at www.sedarplus.ca.

Although management of the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements or forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements and forward-looking information. Readers are cautioned that reliance on such information may not be appropriate for other purposes. The



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