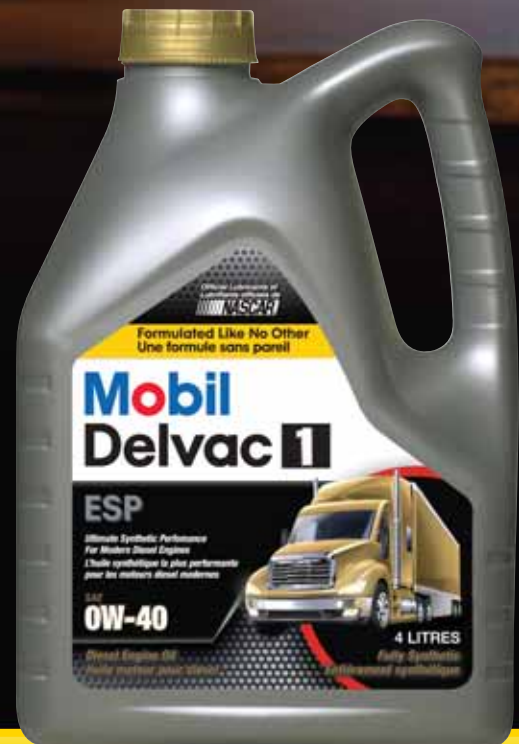


# Mobil Delvac Synthetic Engine Oils:

Technology to trust for supreme year-round performance and long engine life.



**Mobil Delvac 1**

One of the most important achievements in our proud history of protecting heavy-duty engines:

## Trust Mobil Delvac 1 ESP 0W-40 for the optimum combination of productivity and protection.



### Supreme year-round performance to help make your business more productive.

Here is the technology to trust to get you up and running at virtually any temperature you're likely to encounter – even on the coldest Canadian winter mornings.

Unlike conventional oils that thicken in the cold, Mobil Delvac 1 ESP 0W-40 is formulated to move into action as soon as you turn the key.

That's a huge plus for your productivity. But that almost-immediate flow of lubricant can also help to extend the life of your engine. Here's why:

Once your engine turns over and fires, the next 60 seconds are critical. Every engine component moving against another requires lubrication.

Until your oil travels the distance from the crankcase to the most distant parts of your engine, bare metal will continue to scrape against bare metal. In time, this can shave microscopic layers from the component surface.

As you'll see in the chart below, Mobil Delvac 1 ESP 0W-40 reaches all vital parts within that critical 60-second time span, even in temperatures as low as -43° C.

### Mobil Delvac 1 ESP 0W-40 can help control your costs.

Not only does Mobil Delvac 1 ESP 0W-40 meet the stringent engine-protecting requirements of API CJ-4, it significantly exceeds them.

Although the API CJ-4 specification was created for 2007 and later low-emission engines, owners of off-highway and older equipment will clearly benefit from the robust protection delivered by this remarkable family of lubricants.

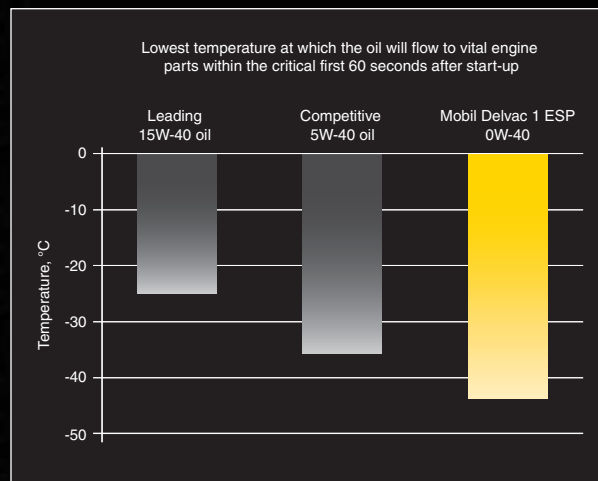
In addition to its superb performance in extreme cold, Mobil Delvac 1 ESP 0W-40 maintains a strong and stable film of protection under heavy load and at high temperatures.

This extreme stability helps resist the thermal degradation that, in conventional oils, can lead to sludge, viscosity breakdown and the formation of harmful deposits.

You may also find that this stability enables oil-drain intervals to be safely extended, saving on maintenance costs and oil-disposal fees, while further strengthening the productivity of your business.



*The first 60 seconds after start-up are critical to the health of your engine. When oil is too thick to pump freely, the resulting metal-to-metal contact can lead to premature wear of hard surface metals. When surface metals wear away, softer, more vulnerable, metals beneath are exposed, often leading to engine failure.*



# Trust Mobil Delvac 1 ESP 0W-40 for high-load, severe-service wear control.

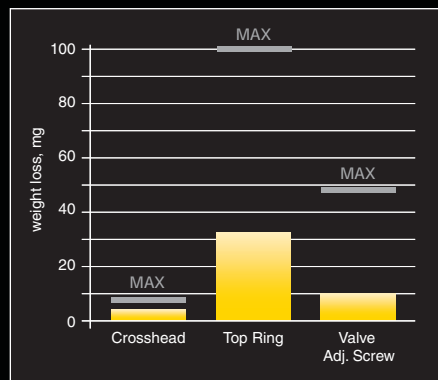
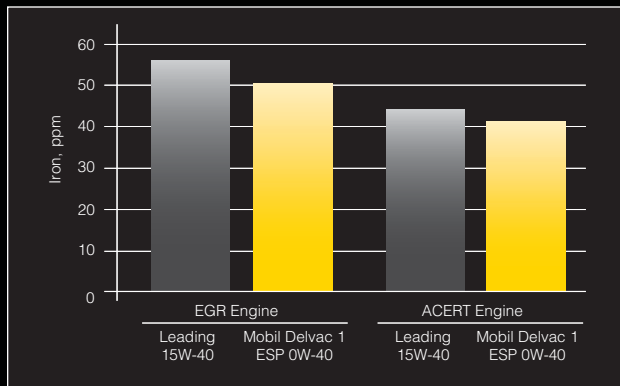
To meet increasingly stringent standards for nitrogen oxides (NOx) and other emissions, most heavy-duty engine manufacturers have incorporated EGR (exhaust-gas recirculation) systems.

Caterpillar has adopted its own technology, known as ACERT™ (Advanced Combustion Emissions Reduction Technology.) Both systems create a hotter and harsher environment for the lubricant, which must now work harder than ever to protect the engine from premature wear.

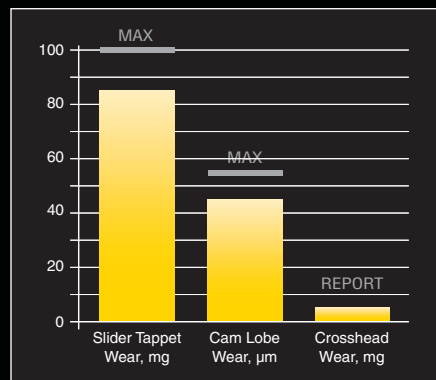
As shown in the chart below, in year-round field testing under severe conditions, Mobil Delvac 1 ESP 0W-40 proved even more effective in controlling wear than a leading 15W-40 engine oil. Tests were conducted in both S60 EGR 475 and ACERT™ C13 engines hauling approximately 140,000 lb GVW.



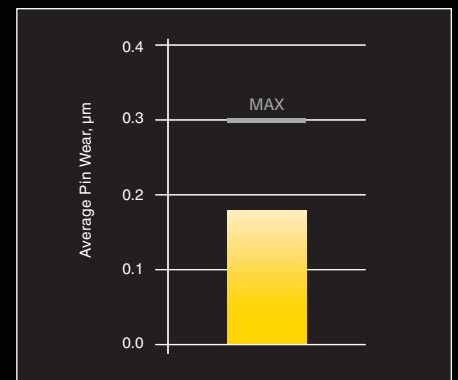
Comparison photos of lower main bearings show that after 370,000 km of severe service under high loads, the wear control of Mobil Delvac 1 ESP 0W-40 (on right) was equal to or better than a leading 15W-40 lubricant (on left).



Greater protection for valve trains under high soot load, as confirmed in the Cummins ISM Wear Test. The test measures a lubricant's ability to control valve-train wear, top-ring wear, sludge deposits and oil-filter plugging.



Greater protection for camshaft and tappet interface. The Cummins ISB Wear test covers 350 hours in two stages. Stage 1 generates excess soot. In Stage 2 the engine runs under cyclic conditions to deliberately encourage wear to the valve train.

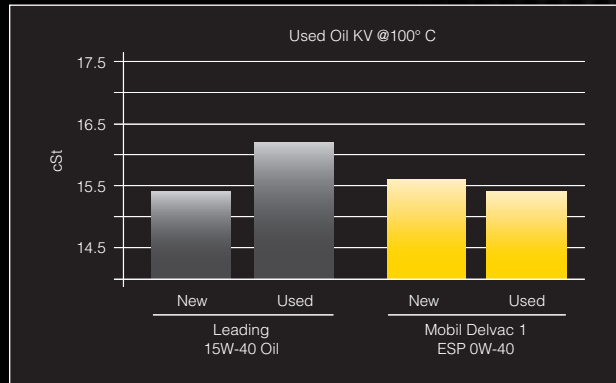


Greater protection for the axle of the camshaft roller follower which is particularly susceptible to wear under heavy load conditions. The Roller Follower Wear Test confirms the ability of Mobil Delvac 1 ESP 0W-40 to deliver wear protection well beyond the requirements of industry standards.

# Trust Mobil Delvac 1 ESP 0W-40 for long engine life through control of viscosity and deposits.

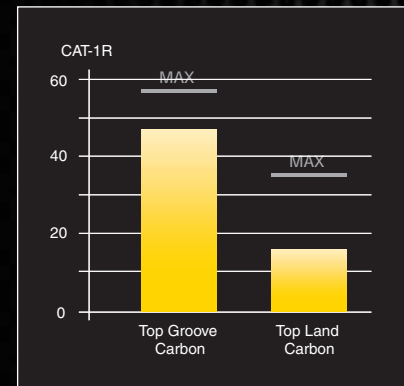
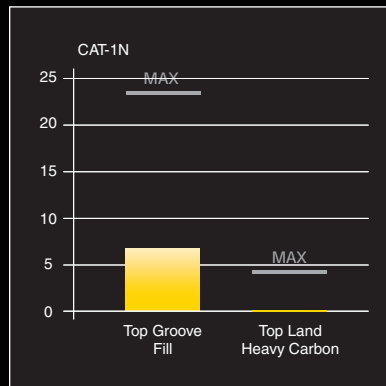
## Used-oil viscosity control in ACERT™ (Advanced Combustion Emissions Reduction Technology) engines.

Mobil Delvac 1 ESP 0W-40 stays within the SAE 40 viscosity grade throughout the oil drain and delivers viscosity control that is at least as powerful as that of a leading 15W-40 lubricant.



## Control over carbon and lacquer deposits at high temperatures.

The Caterpillar 1N and 1R Engine Lubricant Qualification Tests measure the ability of an engine oil to protect such components as pistons, rings and liners from the formation of harmful carbon and lacquer deposits at high temperatures. In all categories, Mobil Delvac 1 ESP 0W-40 performed well ahead of API CJ-4 requirements.



## Specifications and Approvals

Mobil Delvac 1 ESP 0W-40 meets or exceeds these industry requirements:

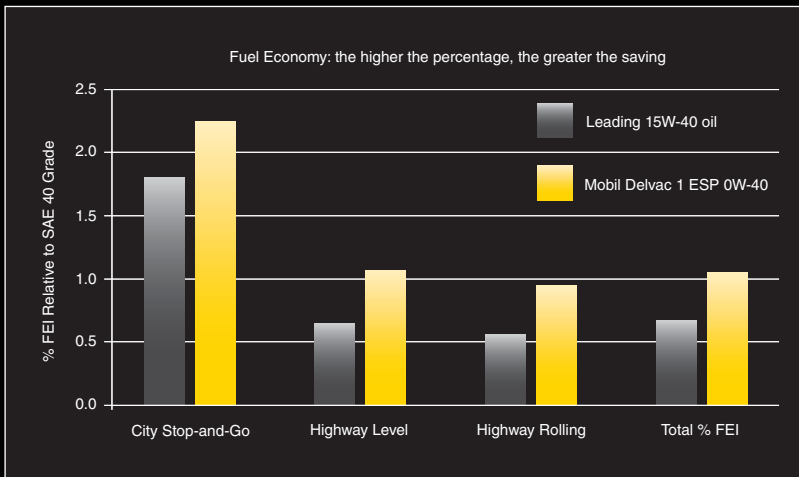
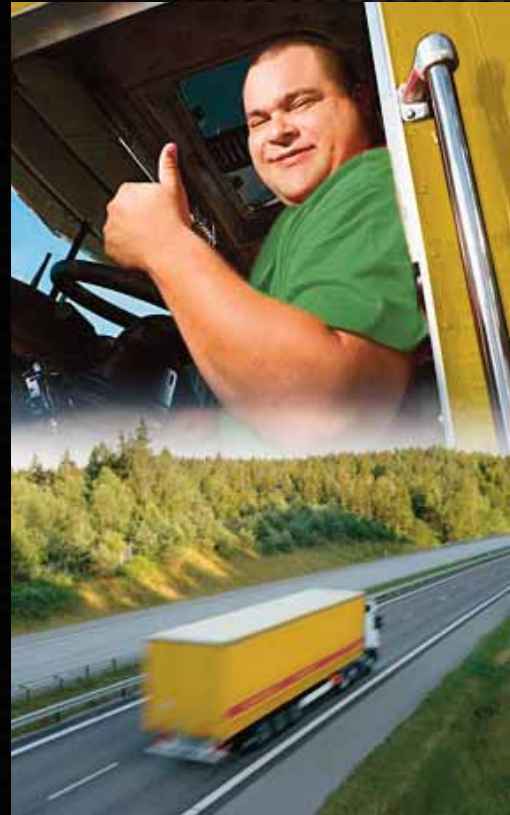
Mobil Delvac 1 ESP	0W-40
API CJ-4 / CI-4 PLUS / CI-4 / CH-4 / SM	✓
Caterpillar ECF-3	✓
Cummins CES 20081	✓
Mack EO-N Premium Plus 03	✓



## Mobil Delvac 1 ESP 0W-40 can not only help protect your equipment, it can also help protect your environment.

If your business is taking steps toward sustainability, Mobil Delvac 1 ESP 0W-40 can help bring you closer to your goal. Here are five ways in which this state-of-the-art lubricant can help you strengthen the productivity of your business while reducing your impact on the environment.

- 1. Mobil Delvac 1 ESP 0W-40** can be expected to last longer than conventional mineral-based engine oils, helping to preserve non-renewable resources. (Your Imperial Oil sales professional will be pleased to discuss with you the feasibility of initiating an extended oil-drain program.) You'll not only consume less oil, you'll have less used oil to dispose of. This not only helps the environment, it also lowers your disposal fees.
- 2. Mobil Delvac 1 ESP 0W-40** will help your equipment run cleanly and at peak efficiency. This helps lessen the impact of emissions and may help lower fuel costs.
- 3. Faster cold-morning warm-ups** means less time idling, which further helps to reduce emissions.
- 4. Superb wear control** helps equipment last longer. Longer-lasting equipment preserves non-renewable resources by requiring fewer replacements and the energy it takes to manufacture them. As this brochure confirms, through chart after chart and proof after proof, Mobil Delvac 1 ESP 0W-40 is the lubricant to trust for long engine life.
- 5. Lower fuel consumption.** With Mobil Delvac 1 ESP 0W-40, your business could see reduced fuel consumption by tens of thousands of litres of fuel per year. The chart below compares the potential savings for trucks operating under various driving conditions.



*In addition to year-round performance and long engine life, Mobil Delvac 1 ESP 0W-40 delivers a significant saving in fuel.*

Imperial Oil

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