

Mobil Delvac 1™

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**DFS gains long engine life,
customer trust and projected
savings of \$213,500 CDN per year.**

“ It’s always been our goal to increase the productivity and longevity of our equipment. The quality of this lubricant has allowed us to push our equipment to another level. ”

Daniel Bérard, President, Danfreight Systems (DFS)



Daniel Bérard

When **Daniel Bérard** founded DFS in 1998, his goal was to apply technology to control expenses, keeping down costs for his customers. He also wanted a minimal impact on the environment. One hundred trucks and 340 employees later, he continues to achieve both goals.

One key step was converting from a dual tire configuration to single wide-base tires for significant fuel savings. To further cut costs and lengthen equipment life, DFS investigated switching to synthetic engine oil.

Working with Imperial and local distributor Harnois Groupe pétrolier, DFS agreed to run a new Peterbilt 387 tractor powered by a Paccar MX 2012 engine exclusively on Mobil Delvac 1™ ESP 0W-40. Oil drain intervals were extended to an average of 100,000 km. Savings to DFS included:

- More time on the road for DFS trucks
- Reduced oil consumption, including less makeup oil
- Lower maintenance costs
- Reduced fuel consumption
- Savings in used oil disposal

Regular used oil analyses tracked viscosity, soot and acidity control and wear metals. At 1.123 million km the engine was torn down and components were photographed and rated. As this report goes to press, most of the engines in the DFS fleet are using Mobil Delvac 1 ESP 0W-40 synthetic engine oil.



With Mobil Delvac 1 ESP 0W-40 synthetic engine oil, DFS is safely extending oil drain intervals, reducing maintenance and fuel costs for savings of \$2,135 CDN per truck per year.

“ Our trucks face temperature extremes from -40° C in Quebec to 30° C in California. We need an engine oil on the cutting edge of technology. With Mobil Delvac 1 ESP 0W-40 we have it. ”

Claude Laporte, Executive Vice-President, DFS

DFS founder Daniel Bérard started out as an owner-operator, hauling Dole bananas into Quebec. The focus on fresh produce continues today, with refrigerated trailers (reefers) making round trips to California and the U.S. southwest, typically logging 10,500 km per truck, per week.

Claude Laporte, in charge of the mechanical shop and technical development, says DFS trucks see temperature ranges from -40 °C to 30°C. These extremes, he says, make it essential to choose the right lubricant. Engine oil must allow reliable cold morning start-ups and safe warm-ups, flowing rapidly to the most distant parts of the engine with minimal wear. The lubricant must also be sufficiently robust to withstand high temperatures, while maintaining stay-in-grade viscosity and clean engines. The photos and charts on the following two pages confirm that DFS chose well with Mobil Delvac 1™ ESP 0W-40 synthetic engine oil.

Mr. Laporte says DFS first began using Mobil Delvac 1 ESP 0W-40 synthetic engine oil in the small diesel engines that power the refrigeration units. Unlike DFS tractors which, with driver teams and sleeper compartments, operate around the clock, reefers may sit for several days waiting to be loaded. “You want them to start up quickly, with no premature wear,” says Mr. Laporte. “Before we started using Mobil Delvac 1 ESP 0W-40 we were doing full engine maintenance on the reefers at 20 to 25,000 hours. Now we go as high as 40,000 hours and the engine is fully functional.”



Claude Laporte



From winter in Quebec to the California sun, DFS specializes in the delivery of fresh produce. Reliable on-time delivery is essential. Trucks average half a million kilometres a year.

Even with extended oil drain intervals of 100,000 km, after 1.123 million km of around-the-clock service this engine shows no more than normal wear – in some places no wear at all.



Remarkable cleanliness after 1.123 million km confirms that Mobil Delvac 1™ ESP 0W-40 synthetic engine oil is an extremely stable engine oil.



State-of-the-art lubricant technology promotes long oil life, evidenced by the valve cover, which stayed completely clean and free of deposits.



Pistons and piston rings exhibit no abnormal deposits and remain in good condition after more than a million km of service and oil drain intervals averaging 100,000 km.



Original cross-hatching of cylinder walls are clearly visible, confirming that a potent film of protection was retained in the hottest part of the engine.



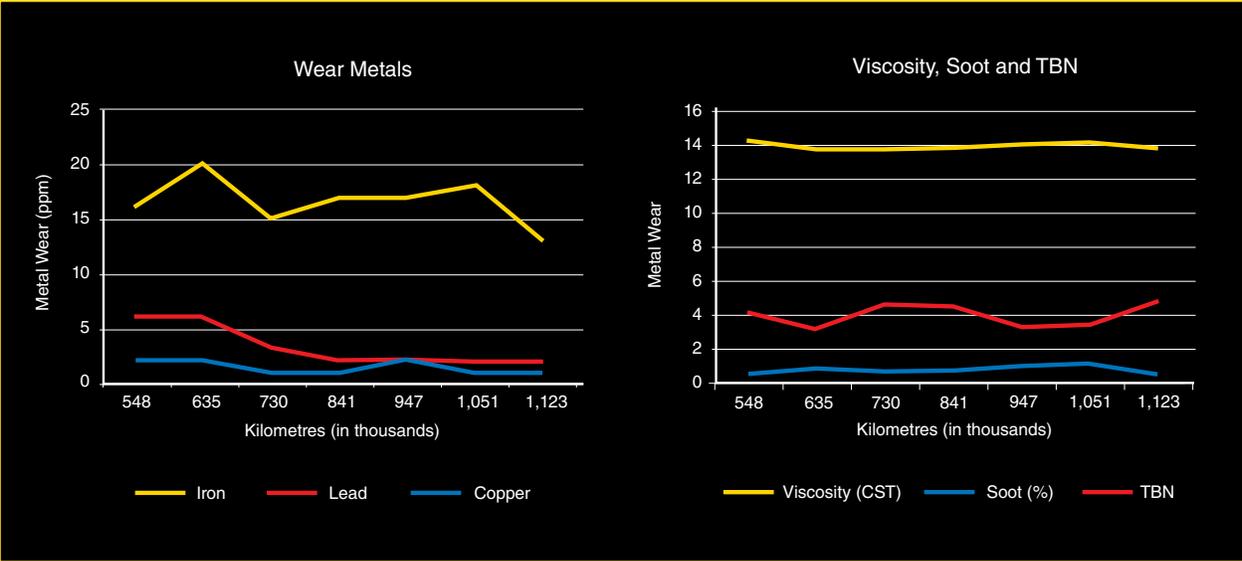
After 1.123 million km of around-the-clock service across a wide range of temperatures, cam lobes exhibit normal patterns of wear.



With Mobil Delvac 1™ ESP 0W-40 synthetic engine oil, rods and cams showed no sign of wear, an essential feature for trouble-free valve performance.



Connecting rod bearings and main rod bearings showed only normal wear, (as seen in the lower main bearings above) after 1.123 million km.

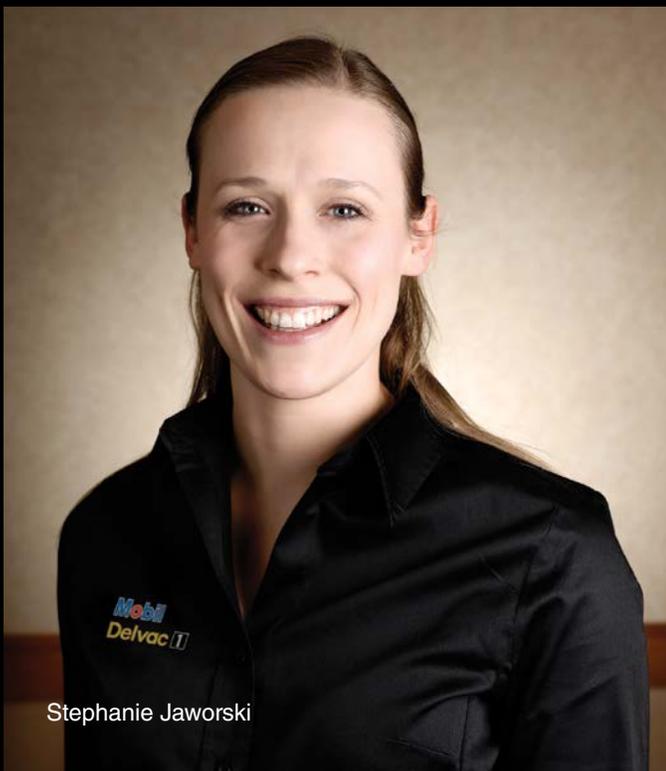


Used oil analyses enabled DFS to keep track of both the condition of the oil and the engine to ensure that oil drain intervals were being extended safely. The chart at left shows wear metals well within the levels established by the engine manufacturer.

The chart at right shows Mobil Delvac 1 ESP 0W-40 synthetic engine oil retaining its SAE 40 grade, while maintaining acceptable levels of soot and reserve alkalinity (TBN).

“ At DFS they value knowledge and technology and use it to do all they can to reduce their carbon footprint. ”

Stephanie Jaworski, Senior Field Technical Advisor, Mobil Lubricants



Stephanie Jaworski

Stephanie Jaworski, whose relationship with DFS began with her conducting half-day lubrication seminars for the maintenance team, calls the company very progressive. “They hunger for knowledge and technology that can help their business.”

Ms Jaworski says DFS is aware of the impact trucking can have on the environment and the importance of reducing its carbon footprint. Earlier steps included reducing driving speed, changing to energy efficient tires and building a state-of-the-art truck wash that recycles 80 percent of the water.

Switching to Mobil Delvac 1™ ESP 0W-40 synthetic engine oil helps DFS make further gains in minimizing its footprint. Extended oil drains mean less oil is consumed and there is less used oil to dispose of. The stability of the synthetic formulation also reduced the amount of makeup oil needed. No makeup oil was required in the first 60,000 km of the road test.

DFS executive vice-president Claude Laporte adds that increasing equipment life not only helps control costs, it’s an environmental plus, since fewer resources are consumed to manufacture new equipment.

DFS also credits Mobil Delvac 1 ESP 0W-40 synthetic engine oil for a 1 percent fuel saving* – another environmental gain and, on a fleetwide fuel bill of \$12 million, a big plus to the bottom line.



The energy efficient DFS headquarters in Joliette, Quebec features natural lighting and a state-of-the-art water-saving truck wash.

World renowned Mobil Delvac technology combined with caring and attentive local service.

For DFS, it's the best of both worlds.

André Cormier, representative for industrial and commercial sales with Harnois Groupe pétrolier, the Mobil distributor that services DFS, says that as the price of equipment continues to increase so does the need to choose lubricant with precision. "When our customers buy new equipment, we sit down with them, review the manufacturer's requirements and help them select lubricants to make the most of their investment."

Mr. Cormier says that, for companies in road transport, success is linked to controlling operating costs and fuel consumption. He says DFS is succeeding in both with Mobil Delvac 1™ ESP 0W-40 synthetic engine oil.

Across the 100-truck DFS fleet, these savings are estimated at \$213,500 per year, including increased availability of trucks, reduced maintenance and lower consumption of diesel fuel and lubricant.

Vicky Beaulieu, Harnois Groupe pétrolier's marketing manager, says her company's goal is to grow through the quality of their products and by offering customers a combination of technical expertise and good-natured day-to-day attention.

These three elements allow Harnois Groupe pétrolier to continually increase their customer base and maintain long term business relationships.



Claude Laporte
and André Cormier

Trust Mobil Delvac lubricants for bumper to bumper protection.

Designed to help extend the life of your heavy-duty equipment, today's Mobil Delvac products are the result of more than 90 years of collaborative efforts with original equipment manufacturers (OEMs), rigorous testing, and millions of dollars invested in research and leading-edge technology. In addition to Mobil Delvac 1 ESP 0W-40, DFS counts on Harnois Groupe pétrolier for reliable on-time delivery of these other Mobil lubricants:

- Mobil Delvac™ Synthetic Transmission Fluid 50
- Mobil Delvac™ Synthetic Gear Oil 75W-90
- Mobil Delvac™ Xtreme Grease
- Mobil Epic™ EP 102
- Mobilith SHC™ 007
- Mobil Rarus SHC™ 1025 Synthetic Compressor Oil



