

# All systems are go for launch of patented Newco tank

■ By Geoff Lee

**Lloydminster** – It's been tweaked, engineered to code, stamped for use in Saskatchewan and Alberta and patented in Canada. After six years in the making, the 1,000 barrel Newco heating tank is ready to go to market.

That's the word from developer Kevin Clarke from his Newco Tank Corp launch pad in Lloydminster, where his new mission is all about marketing and saving the planet – one tank at a time.

Following the successful summer and winter trial of a prototype tank used by Brahma Resources since July 2008, Clarke has made some modifications and leased his first production model to Nordic Oil and Gas operating in the Lloydminster area.

"We are at the verge where we are doing sales and marketing now," said Clarke. "We took the bugs out of the second one and it's been working about a month now and it's working awesome."

The tank is designed with a built-in engine compartment that enables it to harness the engine heat to heat the fluid utilizing exhaust, glycol, hydraulic, and compartment heat.

"We are trying to go green with this product," said Clarke. "With the Newco tank there is no

flame arrester burner system in it so we are eliminating 75 per cent of the CO<sub>2</sub> emissions at a well site. The only thing that is running is the engine."

Estimated propane savings with the Newco tank run between \$3000 to \$4,000 a month in the summer time and a lot more during the winter.

The working unit leased to Nordic sports a fully automated exhaust system that the prototype lacked, causing the engine to overheat if not watched closely.

"Once you get the fluid up to 80 C, the system automatically closes the exhaust coil and opens the bypass, which in turn, eliminates half the heat going into the tank," said Clarke.

The engine, designed by CE Franklin Ltd/Full Tilt Field Services has no radiator and is cooled by glycol in the tank, and runs about at 170 F. The engine compartment reduces the tank capacity to 940 barrels.

With the built-in engine, noise pollution is cut by a reported 75 per cent since the exhaust system runs through the fluid.

A recent published third-party engineering review by R&D Process Management Inc., in Saskatoon showed that one Newco tank reduces CO<sub>2</sub> emissions by the equivalent of 200 to 300 vehicles a year – one of its major selling points.

Newco's web site



Matthew Barnard leased a Newco tank for a Lloydminster well to offset start up costs and cut emissions.

outlines prototype results along with a list of tank benefits such as reduced noise pollution, reduced operating costs, reduced greenhouse gas emissions and no need for a shack.

The Newco tank comes with a lease site set up cost of \$110,000. That is considerably more than a conventional tank but with virtually no propane costs or harmful emissions over-

all operating costs are much lower.

"Some people are comparing it with a conventional tank but it's

not," said Clarke. "I call it a heating vessel because we are harnessing all of the heat from the engine and it's creating free heat for the tank. You no longer have to worry about a flame burner system."

"With the price of oil at \$60 per barrel, this is when companies should be buying it," said Clarke. "The payback is less than six months and the lifetime of these tanks is 18 to 20 years."

"Right now with guys in the recession mode, a lot of companies are saying they are cash poor so we created a lease program with one, three, five and 10 year options."

The lease option is what makes its attractive to junior explorers such as Nordic Oil that Clarke says wants to be a company "that steps up to the plate and goes green as far as the technology allows them."

Clarke has invested more than \$1.5 million of his own money and six years of research to develop and fine tune his tank.

"I have been doing this full-time for the past two years," said

Clarke. "I have been an entrepreneur for quite a while. I grew up in Lloydminster and worked on service rigs for 16 years and consulting for the last few years."

The idea for the tank came from his thinking about how to heat that tank for free and clean up the footprint of the lease and eliminate noise. Eureka!

The Newco tank will be manufactured locally by Universal Industries that worked with Clarke for a short period of time on his first prototype in 2004.

"You become an expert on everything because you wear so many hats," said Clark. "I have had to learn the whole process from fabricating to the engineering side and dealing with patent lawyers and examiners. We had many hurdles to jump to get to where we are today."

"It's been a good project now that we are doing sales and marketing. I am wearing many different hats right now."

Clarke's next challenge is to design a prototype for a 2,000 barrel tank.



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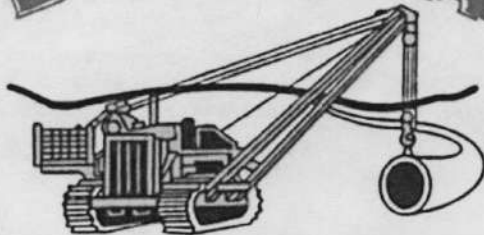
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# Nordic cuts operating costs with



The engine compartment built in to the Newco tank allows Matthew Barnard easy access for repairs.

■ Story and photos by Geoff Lee

Lloydminster – Nordic Oil and Gas Ltd. is confident it has found a way to cut costs and emissions at one of its heavy oil wells near Lloydminster using a new energy-efficient battery with a built-in engine.

The tank is made in Lloydminster by Newco Tank Corp. and uses heat generated from the engine to heat the tank fluid utilizing the exhaust, glycol, hydraulic and engine compartment heat to do the job.

This eliminates the need for the usual propane-powered flame arrester/burner tube that helps to maintain the

tank temperature at about 80 C. Heat separates water from the oil and improves the quality when Nordic sells it to Husky in Lloydminster.

With a potential fuel savings of \$3,000 to \$4,000 a month in the summer time with the Newco tank, Nordic jumped at the chance to use it on a re-entry well located a few minutes north and west of the city.

Nordic has nine heavy wellbores and seven producing wells in the area with conventional batteries heated with propane burners.

"You need a fair amount of production to pay for all those propane costs," said Matthew Barnard, Nordic's director of operations.

"We want to be the most cost-efficient and energy efficient from the field perspective since that is where you spend a lot of your money.

"When we decided to produce the well again, we were thinking about

cost-saving initiatives. The Newco tank does not require any propane and we thought it was a no-brainer to harness the engine's energy.

"The tank was one thing that we thought would save us a fair amount of money over a monthly term and thinking into the future, we are going to be using a lot more propane to heat our tanks.

With the Newco tank, Nordic's emissions are lower since there is no exposed flame on the new tank. Fluid in the tank is heated from the heat given off from the engine compartment and the exhaust coils in the tank.

"When we combined everything about how well the well was going to do with production, and what we would save for our heating bills and our start up costs, we thought with all of those variables this would be a viable well, which it is," said Barnard.

The well, along

with the Newco tank, were brought online in the second week of July with initial production at about 15 cubic metres of oil per day.

"It's been excellent so far," said Barnard. "The well has not gone down as of yet. We've had some torque issues but everything has worked itself out really well.

"All of the lines were installed by C's Oilfield Services. They do really good work. I am very glad we've plumbed in the tank because that's a big part of how well the tank actually works.

"My glycol lines run along the flow lines. We will wrap all those lines with insulation."

In the winter, the glycol line will keep the flow line and the gas line from freezing and keep the condensation down.

C's field foreman, John Scully dropped by the site during the making of this story and he thinks the Newco tank is a great idea.

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