

Reducing reliance on diesel and saving big



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In days gone by, panning for gold often meant long hours spent kneeling at the edge of a river bank, swirling water through a pan to sift out a few tiny glittering nuggets. Fortunately, those days are long gone and, today, exploring for gold is a sophisticated juggle of logistical planning, asset management and environmental stewardship.

Many exploration companies have a strong desire to operate more efficiently – especially since many face a number of challenges working in very remote locations where physical access is limited and the climate is harsh.

“We have a lot of operational members on our team,” says Glen Kuntz, President and CEO of Mega Precious Metals, a Canadian junior exploration company with current projects in Manitoba, Ontario and Nunavut. “When you see exploration through the lens of operations, you strive for the most efficient way of doing things.”

Mega Precious Metals’ Monument Bay project in Manitoba is a good example of how older methods can be replaced with newer, more efficient solutions and still save the company money in the long-term.

“We acquired the Monument Bay site in December 2010 and spent a fair bit of effort on improving it,” says Kuntz. “In particular, the site’s fuel management had been run very inefficiently in the past. Fuel was moved one barrel at a time and that’s no way to run a business.”

Storing fuel in barrels has been a longstanding practice in Canada’s northern areas but it’s not a best practice says Kuntz. “Every time, you touch a barrel, you risk damaging it or having a spill. Plus, it takes an exorbitant amount of staff to simply handle the barrels all day long. There’s a safety issue with that as well as all the time involved.”

Hauling in fuel by helicopter every week also didn’t make sense to Kuntz noting that “you’re burning fuel to bring in fuel.” Instead, he wanted to turn the Monument Bay site, located in the picturesque Twin Lakes area of Manitoba, into a modern and efficient camp that supplied comfort while also reducing its environmental footprint.

To do that, Kuntz says “we completely rethought our dependency on fuel and then set about implementing solutions that would make our usage as effective as possible.” One of the critical components in the plan was to use bulk fuel, brought in by aircraft, and then transferred into collapsible fuel storage bladders.

Mega Precious Metals opted to set-up a tank farm using SEI Industries’ Arctic King collapsible fuel bladders – a pillow-style tank designed especially for tough Arctic conditions. “We bought five – one for Jet A fuel, two for diesel, one for gasoline and a spare,” explains Kuntz. “Now, with the tank farm, we fly in bulk fuel and fill the bladders once a year.”

Using the Arctic King tank farm, Kuntz says the fuel savings have amounted to between 50-60% compared to the way the camp had been operated before. “That’s a significant saving and the environmental benefits go all the way down the line, from less consumption of diesel to the reduced transportation of it.”

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When Mega Precious Metals first took over the Monument Bay site, the conditions were rough, at best. Today, thanks to its modern approach to fuel management, the camp now offers well-heated, comfortable, insulated facilities that incorporate wood as an energy source while reducing its reliance on diesel.

“Initially, we had to build roads and fly in heavy equipment, piece by piece, then reassemble it here,” says Kuntz. From there, the camp evolved into a modern exploration base that takes its operational efficiencies seriously. Kuntz was even able to persuade Wasaya Airways, a 100% First Nations-owned air charter service, and Adventure Air, a family-owned air charter service, to land on a newly-created ice runway so that bulk fuel could be delivered. Ironically, both air carriers use another SEI Industries product, the award-winning BATT, to deliver bulk fuel to many mining camps. Originally developed as a tool for South American law enforcement operations, the BATT is the world’s first double-walled collapsible fuel tank, specifically engineered to each aircraft’s interior. Instead of rigid fuel drums that can leak and damage aircraft interiors, the BATT is soft-sided, baffled for safety and approved for use by Transport Canada.

Once the refueling plane arrives, the bulk fuel is offloaded from the BATT and used to fill the Arctic King tanks using a 6.3-litre/s pump manufactured by SEI. This diesel-powered pump also filters the fuel before allowing it to pass into the Arctic King tanks. Because the Monument Bay site sits on swamp land and near a lake, environmental concerns first had to be addressed before Manitoba Conservation would issue a permit for this type of system.

“We created layer after layer, using gravel and geo-membranes, to create a solid foundation for the tanks to sit on,” says Kuntz. Additionally, fire protection measures were installed and secondary containment Insta-Berms, a fourth SEI Industries product, surround the tanks in case of an unlikely leak. When the camp is not occupied, remote cameras also keep a watchful eye on the site. “Although, we had to go through a bit of a process to get our permits, it was definitely worth it,” he adds.

With fuel supply a top concern for most exploration companies, Kuntz says he’s delighted with the performance of this tank farm system. “It’s better for the environment, great for insurance and field staff appreciate the fuel bladders since it saves them from moving heavy barrels all the time.” www.sei-ind.com

