



CELEBRATING HIS SUCCESS

Alan Taylor, P.Eng., addresses the crowd during the Summit Awards in Edmonton, April 15.

Editor's Note: The PEG begins its series of features on 2010 Summit Award winners in this issue.

Born of frustration and propelled by one man's unrelenting vision, Detection Technologies is based on a simple belief. Alan Taylor, P.Eng., was certain there was a better way for companies to analyze compressors — one that didn't involve expensive shutdowns, lengthy or otherwise.

In the space of a few short years, Mr. Taylor and his family transformed that single idea into a successful company. His passion, perseverance and ability to rally a team around a cause made him the ideal candidate for the 2010 Centennial Leadership Summit Award, which he won in April in Edmonton.

Detection, based in Calgary, has spread from a single room in Mr. Taylor's northwest Calgary home in 1998 to a company that employs 15 people in Canada and 11 in the four U.S. offices. In 2006, the company ranked 70th on *PROFIT* magazine's list of Canada's 100 fastest rising companies.

Brian Taylor, P.Eng., nominated his father for the APEGGA award. "Alan holds APEGGA in extremely high regard and takes very seriously the profession of engineering," Brian says. "His passion for the profession was ingrained into me as a youngster."

Recognition is not something, however, the older Mr. Taylor would seek on his own. "Alan is a very humble man," says his son. "He does not like the spotlight, and

Frustration is the Mother of Invention

Alan Taylor, P.Eng., APEGGA's most recent winner of the Centennial Leadership Award, struggled to develop a non-invasive diagnostic tool for analyzing compressors. Now, the technology he spearheaded is used worldwide in the natural gas industry. In fact Mr. Taylor is a recognized leader in the field and his company continues to thrive

BY **CHRISTINE COTTRELL**

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he creates success for himself and imparts that success onto others in a very selfless way. He is not motivated by accolades, and has always stayed true to what he believes in most — doing the best you can do, and working towards making a positive difference in someone else's life."

Still, winning and being nominated by his son were important to Mr. Taylor. "It was a total surprise and very special," he says. "It tugs at the heart strings."

THE CHALLENGE THAT STARTED IT ALL

Emotions aside, the family business came out of a very practical challenge. After graduation, one of Mr. Taylor's first projects at Dome Petroleum was to optimize a small fleet of natural gas compressors. With no analytical tools available to diagnose compressor problems, he worked through the issues by hand using standard formulas.

It was, to put it mildly, an onerous process.

After performing hundreds of calculations and tests, Mr. Taylor noticed that the equations and formulas were too simplistic. This realization sparked his initiative to develop an accurate system to diagnose compressor performance issues.

Using Fortran and main frame computers in the 1970s, Mr. Taylor began writing programs, testing his equations in industry along the way. With the advent of the

personal computer, he began programming in Basic as he strived to create a non-invasive compressor diagnostic program.

Many hours, nights and weekends of research and programming followed. In the 1990s, the mass adoption of the Internet allowed programs and systems to be run from anywhere in the world.

Assembling a small team of engineers and software developers, Mr. Taylor began to launch a compressor optimization and fleet management company. The concept of managing and diagnosing compressor problems over the Internet had begun.

The engineering software analyzes actual compressor operating conditions. It incorporates modified algorithms that compensate for real-life site conditions, and give an accurate and detailed description of a compressor's operation.

Initially, industry resisted. The concept envisioned had never before used the Internet as a delivery platform. In fact first attempts in the U.S. failed. "It was time to regroup," said Mr. Taylor.

However, companies gradually came to realize that the system offered a comprehensive database for all their compressors.

Under the system, static data on each compressor is set up in a secure database by Detection Technologies. Then field data is submitted from each compressor site.

Mr. Taylor pioneered the use of programmable logic controller panels on reciprocating compressors. These panels are now mainstream technology in the industry and the technology continues to evolve.

A further development is a hand-held electronic device that gathers data. Before, field technicians spent a lot of time writing information on paper and then having to transfer it to a computer. Preformatted data make uploading compressor information easy and transferable.

DEVELOPING THE PEOPLE

And the company continues to grow and develop in related areas. Mr. Taylor created, for example, a mentoring program for technical staff. "The program seemed to naturally evolve, as we needed people to understand the process, and needed to educate them on how and why it works."

Mr. Taylor had mentors of his own, of course. Those at Dome enabled him to gain confidence and follow his vision.

One of his uncles was a heavy duty mechanic. He and Mr. Taylor's father, both farmers, showed the budding engineer the inner workings of their farm equipment. Another uncle and mentor was an electrical engineer who had travelled the world working in the hydroelectric field.

On the family farm in Alberta, a six-year-old Alan Taylor told friends and family he wanted to be an engineer. "I didn't really know what an engineer was, but I knew they worked with machinery."

The boy also dreamed of being an astrophysicist. His fascination with the solar system holds true today. "There is so much we are just beginning to understand, and we are finding more that we cannot explain," says Mr. Taylor.

Back on Planet Earth, family is important to Mr. Taylor. In addition to three adult children, he has six grandchildren, all under the age of seven.

Quiet times are spent walking with his dear wife, Lorie, and their adorable bichon-shih tzu, Oliver, or Ollie to his friends.

Mr. Taylor shares a love of cars with Brian and is proud of their rebuild of a 1978 Corvette. "I don't drive it, but it has a special place in my garage." The father and son have also had many automobile adventures, including learning to drive Formula racecars.

There have been challenges along the way in raising his family and building his company, but Mr. Taylor has no regrets.

These days, he leaves the day-to-day operations of Detection to the team he has nurtured over the years. His role now is to guide his team and continue his research, as well as savour the successes he has created.

He finds time to serve on two condominium boards in Calgary and one community association in Sylvan Lake, and he also contributes to a number of charities.

If he is not busy enough, there is also the small matter of opening a new company office. In Australia.

The Centennial Leadership Award goes to an APEGGA member who has attained the highest distinction in the science of engineering, geology or geophysics as an executive director or other leader. The winner's work can centre on continuing enterprises, invention, research, original work or teaching the professions.

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