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Yara - Keeping Saskatchewan and Our Neighbours Growing

Yara International ASA may be a relatively new name in Saskatchewan; however the products they produce are intimately connected with agricultural productivity and food production which are activities pivotal to Saskatchewan's growth and success.

Yara's core business is fertilizer production. The Oslo-based company has about 7,600 employees and operates 25 nitrogen plants around the world. As the world's largest supplier of mineral fertilizers, Yara has been helping to provide food and renewable energy for a growing world population. In 2008, Yara made a strategic move into the heartland of

North America when it took over Canadian Saskferco in 2008 and re-launched the company as Yara Belle Plaine Inc.

Yara's Saskatchewan plant is situated a short distance off the TransCanada highway at a point midway between the cities of Moose Jaw and Regina. The plant has been a familiar sight for Saskatchewan people traveling in this area ever since it was originally built by Canadian Saskferco in 1992. This major nitrogen manufacturing plant became part of Yara's upstream production system serving markets in western Canada and the upper Midwest of the USA.

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The Belle Plaine facility produces nitrogen fertilizer, an essential product for the successful growth of crops in Saskatchewan as well as our neighbors to the east, west and south of our province. Yara supplies fertilizer to wholesale dealers and commercial distributors of agricultural inputs located throughout western Canada and the northern United States. The fertilizer is manufactured in three forms; urea, ammonia and urea ammonium nitrate (UAN).

TransGas is proud to say that we play a significant service role in Yara's operations by providing natural gas transportation to their plant. Two thirds of the natural gas that TransGas delivers to the plant under high pressure is used as a chemical feedstock for three production units consisting of one ammonia plant, one nitric acid plant and one urea granulation plant. The other one third of the gas we deliver is burned as fuel to provide energy.

Yara Belle Plaine is now producing an average of 3,300 tons of urea, 700 tons of UAN and 2,100 tons of ammonia per day.

The majority of the ammonia produced is used in the production of UAN and granular urea. In fact, Yara Belle Plaine has the largest single line granulation plant in North America.

These production statistics haven't always been the case. When the plant was originally built, it produced only 1,500 tons of ammonia and 2,000 tons of urea. Although there have been expansions over the years, Yara has recently completed an expansion of its urea and ammonia production plants bringing production up to today's levels.

Yara and TransGas have maintained a good working relationship, and TransGas is pleased to be able to provide natural gas of a quality that meets Yara's stringent standards for feedstock at the elevated pressures needed to drive their production lines.

TransGas looks forward to serving Yara for many more years to assist its continued production of fertilizer fuelling Saskatchewan's growth well into the future.

TransGas Storage Status

The TransGas storage customer inventory in storage as of July 21 is 38 PJ, which is 89 per cent of full based on contracted storage for the 2010/2011 storage year of 43 PJ. To fill contracted storage an injection requirement of 5 PJ remains, with this injection assumed to occur over the next two months. During the month of June, a net storage injection of 6 PJ occurred, which is the highest monthly injection in the past eight years.

Energy to Store 2

TransGas is proceeding with another Storage Expansion!

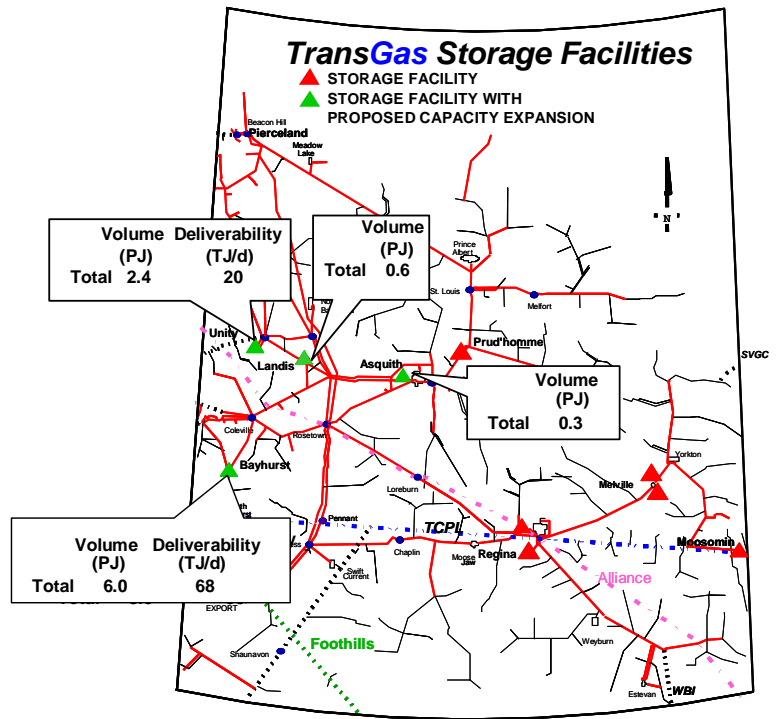
Over the last decade, TransGas has significantly expanded its storage capacity in Saskatchewan with the last storage expansion, Energy to Store 1 (ETS 1). The incremental storage contracting as part of the ETS 1 expansion was completed this year, with a total contracted firm storage of 40.5 PJ and 718 TJ/d of deliverability. This capacity is provided by eight TransGas storage locations (two storage fields and six cavern locations).

During the month of May 2010, an offer was issued to the TransGas storage queue for incremental capacity to determine whether another TransGas storage expansion was possible. The response from this offer was very positive, with approximately 8 PJ and an incremental 88 TJ/d of deliverability committed to by customers. Approximately one-quarter of this proposed incremental capacity is available in 2010 with an effective date of July 1st, which will potentially increase total contracted TransGas firm storage for the 2010/11 storage year to 42.7 PJ and 744 TJ/d of deliverability. The remaining proposed storage capacity is currently scheduled to become available in 2011 and 2012, with the majority in 2012. The scheduled availability of this incremental storage capacity as part of Energy to Store 2 (ETS 2) will be finalized later this year.

The ETS 2 expansion will be similar to ETS 1 in that it is an expansion at existing TransGas storage locations, with the majority of the proposed capacity coming at the two field locations: Bayhurst and Unity storage fields.

Energy to Store 2 Proposed Expansion

9.3 PJ Firm Volume
88 TJ/d Deliverability



TransGas Employees Build a "Lot of HOPE"



Small Lot of H.O.P.E

(left to right) Darren Selinger, Coel Moltz, Andrea Hewitt (Corp. Affairs), Steve Peddle (Service Tech, SEI), Kyle Gerein, Leslie Gosselin (Corp. Affairs), Kon Stolz and Dennis Hoeft

Photo credit: Todd Gervais, Carlyle Observer

Thanks to the hard work of five TransGas volunteers, Carlyle Elementary school is well on its way to achieving its vision of an outdoor learning area they call *One Small Lot of H.O.P.E.*

When SaskEnergy received a sponsorship request from Carlyle Elementary to help develop a natural learning space, we were pleased to provide the school with \$1,000 – the maximum amount available through the Team Energy Youth Volunteer Grant program. The school used the money to purchase plants and trees, edging, landscape tarps, lumber and stepping stones that were decorated to represent each class of students.

But our support didn't stop there. Because TransGas is currently installing a pipeline from Alameda and Whitewood that runs near Carlyle, TransGas employees were eager to help out and engage with the community. The enthusiastic group included: Engineering Specialist Konlin Stolz, Pipeline Engineers Darren Selinger and Kyle Gerein, Operations Assistant Dennis Hoeft and Summer Student Coel Moltz.

It didn't take long for the enthusiastic volunteers to accomplish some of the tasks that the students and staff would have struggled to do on their own. In short order, they constructed a large sandbox and quickly got to work on building three flower beds. Then they laid edging for a walkway, placed the stepping stones along the path and began filling it with soil and rocks.



Small Lot of H.O.P.E

Students were drawn to the colourful stepping stones and couldn't wait for them to be installed before playing with them.



Meanwhile, students planted and watered trees, dumped and leveled sand in the sandbox and helped fill the walkway.



Steve Peddle a service technician from Carlyle, was also on hand with a SaskEnergy/TransGas BBQ to grill up some hot dogs for the kids, many of whom thanked the volunteers for their help and the yummy treats.



Small Lot of H.O.P.E
Steve Peddle (centre) cooking hotdogs with help from Konlin Stolz and Leslie Gosselin of Corporate Affairs.

Changes in Telemetry – One Man's 40-year Career

TransGas might be just a couple of decades old, but some of its employees have been working in Saskatchewan's natural gas transmission industry for far longer than that. One such employee is Engineering Services Supervisor, Bill Thacyk, who in February celebrated a significant milestone in his career – 40 years of service.

Over the years Bill has seen many changes in the way we do business. While our core objective has remained constant – the transportation of natural gas – the technology we use and the services we provide have advanced substantially.

Bill came to Regina from Unity in 1982 to lead the Engineering Services team in undertaking a huge project – a complete, system-wide replacement of telemetry* equipment. Prior to 1982, the system, which collects data, such as delivery and receipt amounts, and measures such things as pressure and impurity levels, used simplistic “pulse duration” technology.

“It was basically just a can on an electric motor going around, and there was a stylus on it that would position what the pressure was,” recalls Bill. “It would basically turn a switch on and off...24 hours a day. How long that switch was either closed or open would dictate what the signal was.”

That overhaul project, which saw the installation of Westronic telemetry equipment throughout the province, lasted about five years. Shortly thereafter, there was a major shift in the business dynamics of what would soon become TransGas. SaskPower sold its gas fields to SaskOil. And in 1988, the natural gas utility divested from SaskPower to become TransGas (transmission) and Provincial Gas (distribution), the antecedent of SaskEnergy.

Despite initial uncertainties, business continued to grow for TransGas. There was an increased focus on building and outfitting compressor stations, which use pumps to impose high pressure on natural gas and move it through the pipeline system. The first major project was the Piapot Compressor Station, followed by plants in Coleville and Rosetown. Bill's team was responsible for building and installing telemetry equipment at each of those facilities. That instrumentation is maintained by on-site operators, and the information generated is monitored by Gas Control at head office. Based on the information received, controllers remotely direct the movement of natural gas throughout the system.

Bill and his team also install equipment at storage caverns and meter stations. Telemetric signals from meter stations, where gas enters the TransGas system, are

transmitted via the Gas Measurement Accounting System (GMAS). The Gas Measurement team is then able to post information on the TransGas website so that customers can see how much they've bought or sold.

One of Engineering Services' more recent projects involved system improvements at the Unity and Landis facilities, where Bill's team installed new control panels and, at the latter site, an Emergency Shut Down System.

Currently, the team is working on a project at the Steelman plant. The Ameco supply plant in Steelman has a high potential for sour gas*, explains Bill. Until now, TransGas has not had the capacity to remotely control gas flow should levels exceed the acceptable amount. Rather, they have had to dispatch somebody from Regina to operate the valve. To improve efficiency, Bill's team is installing a piece of equipment that will allow for remote control. They are also removing old Westronic Remote Telemetry Units, for which parts are no longer available, and replacing them with Bristol Remote Terminal Units.

"The old story goes," jokes Bill, "that you know you've been around a long time when you start removing some of the equipment you installed."

Yet, even after 40 years, Bill still has a passion for his work. It hasn't always been easy; working on facilities throughout the province often kept him away from his family. But he has no regrets.

"The project work still captures my interest," says Bill. "I look forward to coming to work on Mondays...Otherwise, I would have retired five years ago."

Bill has no immediate plans to retire, but when he leaves, he can do so knowing that he's had a significant impact on TransGas' capacity to transmit information and operate equipment efficiently – successes that improve the quality of service we provide our customers.

- * *Telemetry is technology that remotely measures and reports information. The TransGas telemetry system involves wireless pneumatic (compressed gas) impulses that are transposed into electrical signals sent to Gas Control.*
- * *Sour gas is natural gas that contains high amounts of hydrogen sulfide (H₂S). If levels of H₂S are above 4 ppm, it is considered too impure to deliver to customers.*





DID YOU KNOW . . .

The TransGas Tariff can be found on our website? Click on Services - TransGas Tariff.

You can view the Table of Contents either in Textual format or Graphical format. By clicking on any of the boxes in the graphical format, you will automatically be taken to that section of the Tariff.

The Updates section provides a summary of any updates that have been made to the Tariff.

The Schedules of Service section provides a link to each of our various Schedules of Service.

Check us out the next time you're on the website. If you have any questions, please call Vern Gorr (306-777-9556) or Scott Joyce (306-777-9985) in Policies, Rates and Regulations or your Key Account Manager.