### NOTE FROM DARREN

GREETINGS FROM THE SHELL CAROLINE COMPLEX – ON BEHALF OF THE 90+ PEOPLE WORKING AT THE COMPLEX AND IN THE FIELD, WE ARE VERY PROUD OF THE MANY MILESTONES WE HAVE ACCOMPLISHED OVER THE LAST YEAR. THERE ARE MANY COMPLEXITIES IN OPERATING A SOUR GAS FACILITY LIKE CAROLINE AND WE CONSTANTLY JUGGLE PRIORITIES AND RESPONSIBILITIES – HOWEVER WE KEEP FOCUSED ON THREE MAIN AREAS: SAFETY, PEOPLE AND THE ENVIRONMENT.



As many of you know, our priority is safety – we want each and every one of our staff and contractors to go home at the end of the day safe and healthy.

Our safety program, anchored by our 12 Lifesaving Rules, has a goal of ZERO incidents.

- The team has worked over 230,000 hours without a first aid incident or recordable injury
- We've gone almost 11 years and counting without a Lost Time Incident (LTI)
- The team has clocked over two years without a vehicle incident involving wildlife

Our people are our greatest asset – the skill, professionalism and passion our team brings to work each day allows Caroline to operate at its greatest and safest ability.

We realize that we must work responsibly in order to operate in such a unique environment as Central Alberta. We have maintained our focus on environment and dramatically improved in all areas. We only flare sour gas in an emergency which equated to only 1 tonne of sulphur dioxide emissions due to flaring in 2015.

Our focus on environment is showing results. We have seen a year over year reduction in environmental impacts such as spills, flaring and stack top emission contraventions to the point that they are very infrequent events.

As you can see, we take our responsibility to be a good neighbor and operator very seriously – we live and work here too. As you read through this newsletter you may recognize your friends and neighbors volunteering in and around the region, being involved and helping out. That's who we are.

## COMMUNITY BARBEQUE SEASON IN CENTRAL ALBERTA

SHELL SHARING, SWAPPING STORIES AND STEAKS

2016 marks the ninth year for the Shell Community Barbecues in Central Alberta. It's a chance for the stakeholders to gather and learn what's happening at Shell facilities in the region, meet with Shell staff, catch up with neighbors and partake in a tasty steak dinner.

Darren Vancuren, Operations Manager for the Caroline Complex, enjoys sharing information with his neighbors.

"The BBQ's give us a chance to open the facility gates in a way, and explain to folks what we're working on, what's important to us and listen to what's important to stakeholders. Plus, the steak dinner is really good."

Shell invites you to mark your calendar for the BBQs in the spring of 2016.





# WHAT GOES UP MUST COME DOWN

DECOMMISSIONING OF THE BURNT TIMBER PLANT



What once was a busy, bustling and productive processing facility is now much quieter. The facility was safely shut down over the summer of 2014 and was turned over to the Decommissioning, Abandonment and Reclamation (DAR) team in early September 2014. This follows approval by the Alberta Energy Regulator to dismantle the facility.

Perhaps the most iconic element to the Burnt Timber facility was the 374-foot incinerator stack, visible from over 10 kilometers away. The incinerator stack was an integral part of the facility and a landmark when travelling to the West Country. Under regulation from Navigation Canada a lit beacon was required on the stack at all times for the protection and safety of air traffic. However, the power was to be shut off to the facility as part of the decommissioning project so the first order of business was to drop the stack.

In November 2014, under the watchful eyes of the DAR team, the imposing stack was brought down without incident, a critical piece of the decommissioning project. A lot of planning and detailed engineering went into the controlled drop of the 30-story stack containing 90 tonnes of refractory brick.

"We considered cable weights, bolt patterns, and anchor points as well as afternoon wind changes and the weather. Once exclusion zones were identified we were able to have a safe area for invited visitors and past employees to watch the historic moment," explained Carol Elliot, DAR Superintendent. One retiree, who was at the Burnt Timber facility when the stack was erected, was there to watch the stack come down – a lot faster than when it went up.

The stack drop was just the beginning; since then the DAR team has successfully removed all process equipment. The demolition was successfully executed with no safety incidents (Goal Zero) and on budget. The team worked 10,982 hours and travelled 169,000 km without incident. We recovered 18,000 MT of sulphur that was trucked to the Shell Shantz facility and we were able to recycle 162 MT and the liner under the sulphur block at a compost facility.

A sustainable and economic approach also proved to be the most cost effective option – by sorting and managing the materials, Shell recycled 3600 MT of ferrous material and 535 tonnes of non-ferrous

material, with only 12% of the waste sent to the landfill. All reusable equipment was re-deployed within Shell and a miscellaneous 350 MT of equipment was sold outside of Shell.

The environmental assessment of soils and groundwater was completed in February 2016 and soils remediation will begin later in 2016. DAR will complete removal of the foundations this spring and all clean cement will be recycled for aggregate. Overall remediation efforts are one year ahead of schedule.

Shell's Burnt Timber gas plant processed its last molecule of gas over 18 months ago on June 18, 2014, after 44 years of exceptional service.

The DAR team continues to look to the legacy of the Burnt Timber site. DAR participated in the United Way auction donating tools and equipment to charity to the highest bidder. Tools and tool chests were donated to the Cremona School mechanics program and DAR continues to support the community through a scholarship program.

DAR carries on the tradition of providing garbage bins for the long weekends to reduce garbage in the West Country. They also provide facilities and support to Search and Rescue Alberta and the RCMP public safety and education efforts during high recreation use times in the area by providing a staging area for emergency response.





## PROUDLY PARTNERING WITH OUR LOCAL COMMUNITY

Shell Canada's social investment activities are driven by a belief that our long-term success depends on working with communities to understand local needs. In 2015, Shell supported over 30 projects in Central Alberta local and First Nation communities. Some of the more unique partnerships are:

### Aspen Ranch Outdoor Education Science Camp

For many years Shell has been helping to make science fun in Central Alberta by supporting the Aspen Ranch in providing free summer camps to local students.

#### **Caroline Medical Clinic**

Shell partnered with the Caroline Chamber of Commerce in making health care available to local residents by supporting the operation of the local clinic.

### Clearwater, Sundre and Didsbury Fire and Emergency Response

By supporting these much needed services, Shell supports the safety and protection of all of our families.

#### **Clearwater Trail Initiative**

Responsible use of the backcountry works better when we all work together. Shell is proud to be a partner in this pilot project which is tackling this difficult issue.







### SYNERGY ALBERTA

In Central Alberta, Shell has been an active participant in a number of synergy groups such as West Central Stakeholders in Rocky Mountain House, Sundre Petroleum Operators Group, Panther Advisory Group, Tay River Advisory Group and most recently the Clearwater Trails Initiative.

Shell is also a champion of the overarching organization that supports these synergy groups. Synergy Alberta was officially launched in 2006, and since then more and more groups have formed to provide a respectful, mulit-stakeholder approach in addressing local pressures of resource development. Each group has its unique characteristics and have evolved to meet the needs of their respective community. Synergy groups are being looked at by other communities, provinces and even countries as a sensible approach to ensuring development is done responsibly.

In 2015, Synergy Alberta welcomed two new member groups – Clearwater Trails Initiative and the Wapiti Area Synergy Partnership.

The Synergy Alberta Board of Directors that steers this organization is itself a multi-stakeholder group including industry, community and government voices. Current Synergy Alberta Industry Chair is Shell's Central Alberta Community Liaisons Officer, Alice Murray.

Alice says of her role in synergy "Synergy is a chance for all of us to approach the opportunity of our community's future as a collective – making resource projects and our communities better than they might have been if we hadn't. That is pretty exciting stuff."

Learn more at www.synergyalberta.ca



## WHERE'S THE FLARE?

## INNOVATIVE TECHNOLOGY ELIMINATES THE FLARE DURING WELL COMPLETIONS

Incinerating gas is an example of innovation – instead of flaring Shell and other operators can incinerate the gas, eliminating the visible flame. Shell is committed to reducing the use of flaring worldwide and in most instances, flaring is only done during completions activity and emergency situations.

"We've been very successful in reducing the times we need to flare to mostly emergency situations," explained Sean Hervo, Staff Wells Engineer for the Rocky Mountain House asset where incinerators have been deployed for completion activity.

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Shell utilizes mobile incinerators, which are approximately 7.5 meters in height, during the flowback phase of the completions operation. Capable of reaching temperatures of over 600°C, these large devices mix waste gas streams and air, burning them at a controlled rate in an enclosed chamber which is located a safe distance from the wellhead. Incinerator by-products depend upon the original composition of the gas; generally high-efficiency combustion of natural gas (methane and other constituents) results in carbon dioxide and water vapour. If hydrogen sulphide (H<sub>2</sub>S) is included in the waste gas stream, nearly all of the hydrogen sulphide is converted to sulphur dioxide.

Sean notes that choosing to incinerate or flare gas is dependent upon the location and flow of the well and other conditions.

"We look at many factors when we plan our wells and choose the best technology to give us the best results."

#### THE CHINOOK NEWSLETTER FEATURES SHELL STORIES HAPPENING IN THE CENTRAL ALBERTA REGION

FOR MORE INFORMATION ON NEWS
IN YOUR AREA, OR IF YOU HAVE ANY
QUESTIONS OR CONCERNS ABOUT SHELL,
PLEASE CONTACT:

#### **ALICE MURRAY**

COMMUNITY LIAISON OFFICER CENTRAL ALBERTA (403) 722 7049 ALICE.MURRAY@SHELL.COM

#### MARCIE NIEMAN

COMMUNITY LIAISON OFFICER ROCKY MOUNTAIN HOUSE (403) 722 7035 MARCIE.NIEMAN@SHELL.COM