

THE COMMUNITY CONNECTOR

NOVEMBER 2021

THE BC OIL AND GAS COMMISSION'S
BIANNUAL NEWSLETTER – ISSUE 4

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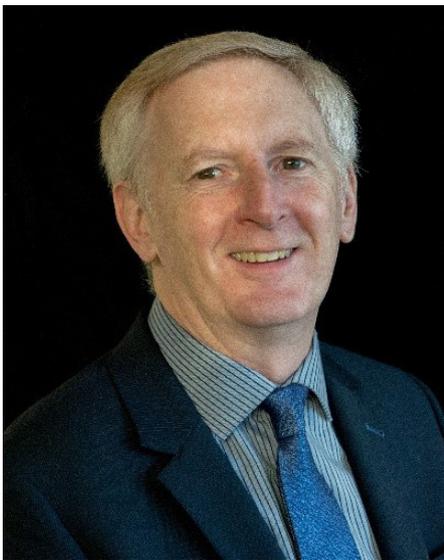
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A CAMEL IN CLARKE LAKE

MESSAGE FROM THE CEO



Paul Jeakins
CEO

I'm pleased to present the Community Connector where you can find some insights into the work of the BC Oil and Gas Commission (Commission) and its staff. You'll see there's an updated Land Owner Guide now available; learn about the work Commission employees do to aid the provincial effort on emergency management; and discover some of the many tools the Commission uses and makes available – from water and air monitoring, to a landslide susceptibility map – to ensure the sound regulation of oil, gas and geothermal resources. We're continuing to handle the pandemic, which means constantly adapting and innovating, even though its effects are carrying on much longer than anyone wants.

In the previous newsletter I let you know I would be retiring as CEO and Commissioner. You can read about the new Commissioner, Michelle Carr, and find out a little bit more about her in this edition – she officially takes the helm November 15. Michelle will be leading during a time of change in northeast B.C. development and also a period of deeper reconciliation with Indigenous communities, things we can all participate in.

It has been my privilege to work on behalf of all British Columbians and soon I'll be turning to the Community Connector myself to find out what's happening in and around the Commission.

OUR INCOMING COMMISSIONER AND CEO

Michelle Carr will be the new CEO and Commissioner at the BC Oil and Gas Commission (Commission) following an extensive national search and review of both internal and external candidates led by the organization's Board of Directors. Carr comes to the Commission from the Ministry of Energy, Mines and Low Carbon Innovation (EMLI), where she has been Assistant Deputy Minister (ADM) of the LNG Canada Implementation Secretariat since October 2018. Carr also spent almost four years as ADM and Executive Lead with B.C.'s Environmental Assessment Office (EAO).

Carr has provided leadership in regulation, operations, government engagement and industry relations in three diverse executive portfolios with the B.C. government. In addition to her work with EMLI and the EAO, she was also ADM and General Manager of the Liquor and Cannabis Regulation Branch, Ministry of Attorney General, overseeing the development of the first-ever non-medical cannabis retail regime in B.C. She holds a Master of Arts degree in Geography from the University of Victoria and a Certificate in Advanced Leadership from the UBC Sauder School of Business Executive Program.

Carr was confirmed through an Order in Council and her appointment is effective Nov. 15, 2021.



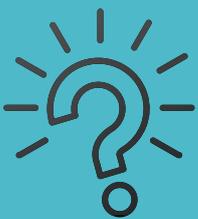
MICHELLE CARR, NEW CEO AND COMMISSIONER AT THE COMMISSION.



REGIONAL NETWORKING GROUP (RNG)

The RNG includes a group of private land owners and the Commission's Stakeholder Relations team. It was created to share information with land owners and give land owners the opportunity to send us their feedback and ask questions. This group is open to all land owners across B.C.

In addition to sending information about energy development and how we regulate it, we also notify members of upcoming Commission events, provide industry updates and information bulletins pertinent to them. If you are a land owner residing in B.C. and want to participate, please contact us at stakeholder@bcogc.ca. We look forward to hearing from you!



DID YOU KNOW...

...70 per cent of orphan sites in B.C. have been decommissioned? For the 17 orphan sites reclaimed this year, the average time between orphan site designation and reclamation was six years, beating our target of 10 years.

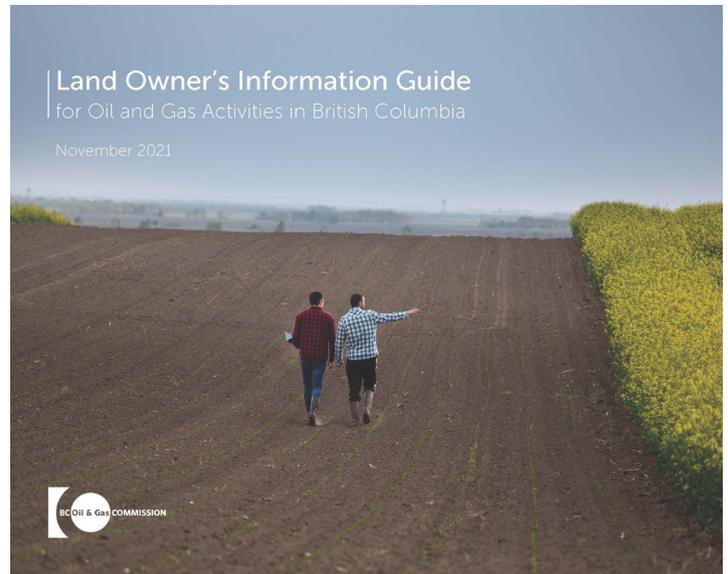
OUT WITH THE OLD, IN WITH THE NEW!

The [Land Owner's Information Guide](#) has been updated!

This guide was improved to include plain language, sharper illustrations and internet links so other Commission documents can be accessed and viewed online with the click of a button. The new links give you direct access to webinars, fact sheets, regulations, and more.

The Commission's regulatory framework creates a "roadmap" oil and gas activities must follow from beginning to end. Even though it's called the Land Owner's Information Guide, it can be used by anyone. It explains different oil and gas activities, shows their lifecycle and how the Commission regulates energy development in B.C.

The new version of the guide is on our [website](#) and viewable on your computer or smart phone. Printed copies are available at any of our office locations for pickup (when public health orders allow). Mailouts are also available – please call our main number (250-794-5200) or email stakeholder@bcogc.ca to request your copy.



FIRES, FLOODS AND LANDSLIDES – WE'RE THERE FOR YOU!

Every year, British Columbia communities prepare for and respond to many different incidents and disasters. Sometimes, large events are more than a community can handle, and Emergency Management BC (EMBC) or the Wildfire Service need to help out. But who helps these organizations?

Since 2014, dozens of BC Oil and Gas Commission staff have used their emergency management skills and training, volunteering their support for EMBC at regional operations centres or Wildfire Service bases. They've taken on diverse roles from section chief to logistics support. Each deployment typically lasts 10 incredibly busy and intense days. Common

themes run across each and every type of incident – how truly rewarding it feels to be able to help; to see the results of our work in safe evacuations; and meeting the needs of our neighbours across the province.

Working closely with communities, Indigenous groups and other emergency management organizations is a great opportunity. We get to see and share new best practices and technologies and build positive relationships. This improves collaboration and promotes effective responses our teams can use in the event of an oil or gas incident.



PIPELINE SAFETY AND INTEGRITY MANAGEMENT

British Columbians rely on pipelines for the safe transportation of water, oil and natural gas. The Commission regulates over 50,000 km of pipelines in B.C. They are used for gathering and transporting natural gas and oil. Besides the Commission, there are two other agencies that regulate pipelines in our province. Technical Safety BC regulates low pressure natural gas and propane distribution pipelines, and the Canada Energy Regulator oversees cross-border pipelines.

Pipelines regulated by the Commission must comply with the Oil and Gas Activities Act and regulations, including the Pipeline Regulation. The national standard for pipelines, CSA Z662, is part of the pipeline regulation. CSA Z662 contains detailed technical requirements for pipeline design, construction and operation.

The Commission's oversight of pipeline safety starts when a company applies for a pipeline permit. The Commission reviews the application to ensure it meets regulatory requirements. Conditions are added to the permit to address any specific issues. During construction, the Commission completes inspections to assess compliance. Construction inspections include a review of stream crossings, soil handling, pipe welding, application of pipe coatings, pressure testing and restoration. Inspections continue throughout the life of the pipeline and focus on visible items such as water crossing maintenance, signs and the condition of above ground equipment.

The Pipeline Regulation requires every permit holder to have a pipeline integrity management program, or IMP. The IMP is a system for permit holders to identify, assess and manage the risks associated with pipelines. These risks include the potential of floods, landslides, corrosion, and third-party damage. Third-party damage can occur when someone digs near a pipeline without proper safety precautions in place. The Commission conducts regular audits of IMPs to ensure they meet regulatory requirements. Where issues are identified, permit holders must correct them and provide progress reports to the Commission.

Permit holders must have emergency response plans, respond to all incidents and report them to the Commission. The Commission monitors the incident response. Permit holders have to investigate incident causes and take corrective actions. They must also submit this information to the Commission. We may conduct an investigation and will take enforcement action where appropriate.

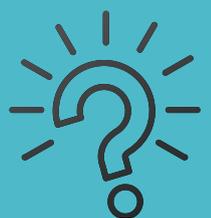
The Commission website, bcogc.ca, contains data on [Compliance and Enforcement](#) and annual reports on [Pipeline Performance](#) and [Integrity Management Program](#) audits. The Commission's goal is to continually improve pipeline performance and safety.



THIS PIPE HAS BEEN EXCAVATED FOR INSPECTION. THIS IS A KEY ACTIVITY FOR PIPELINE INTEGRITY MANAGEMENT.

DID YOU KNOW...

...you can use the [Open Data Portal](#) on our website to see where oil and gas activities are in B.C.? Each activity type has its own interactive map! Click on wellsites, pipelines, roads, and more to explore proposed and authorized energy development in your area and across the province.



EMERGENCY MANAGEMENT REGULATION (EMR)

Our Board recently approved amendments to the EMR. The updates focus on improvements to emergency response training, hazard planning and requirements for emergency planning.

Training requirements have been improved by requiring an exercise before the start-up of a new facility or transmission pipeline. Updates also enhance the Commission's ability to evaluate a permit holder's training exercises. Where an exercise shows the permit holder's plan may not adequately protect public safety or establish control of the incident, follow-up action is required.

The amendments also strengthen communication with Indigenous nations and ensure appropriate nations are included in emergency planning.

Other changes build on continuous improvement by:

- Enhancing consideration of airports in emergency response planning.
- Providing more flexibility in calculating the hazard planning distances for special sour and acid gas wells.
- Updating spill reporting requirements to address recent changes to the Spill Reporting Regulation under the Environmental Management Act.
- Clarifying the timelines and obligations required to report emergencies to the Commission.

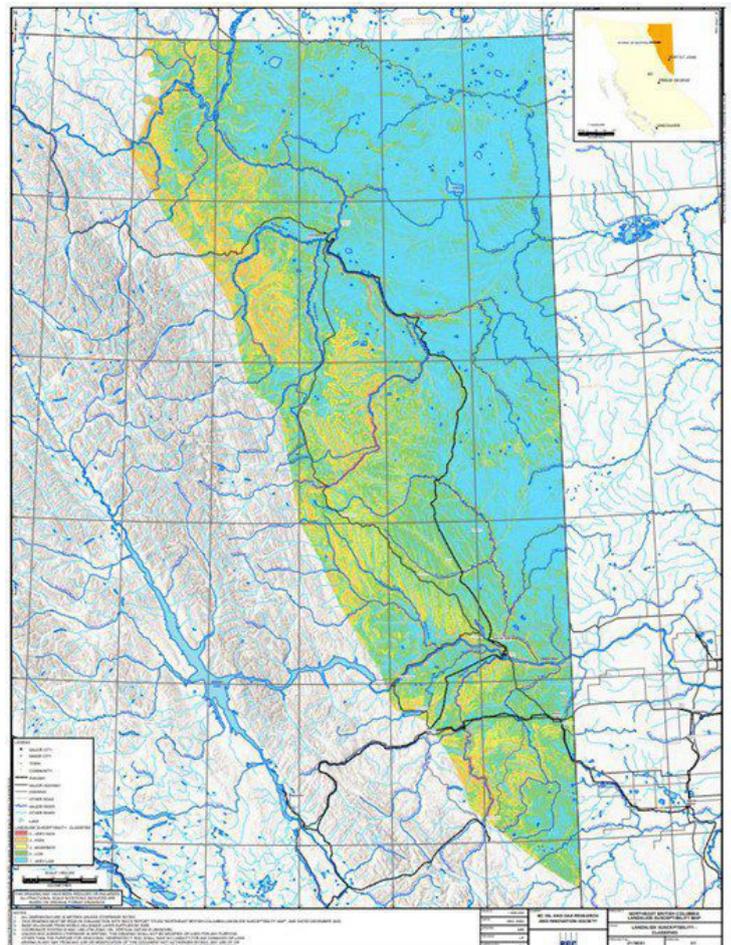
The amendments came into effect Sept. 1, 2021.



NEW LANDSLIDE SUSCEPTIBILITY MAP

Through funding from the BC Oil and Gas Research and Innovation Society (BC OGRIS), a [landslide susceptibility map](#) for the Northeastern B.C. (NEBC) region has been developed. This map will assist the oil and gas industry manage landslide risk. Oil and gas operators must consider geohazards, including potential landslides, for managing the integrity of their operations. The map, with landslide susceptibility's colour-coded scale, provides a useful tool for planning and implementing these programs.

The map (Figure 1) shows the spatial distribution of landslide susceptibility using a relative ranking from low to high. A project report released by BC OGRIS describes the approach and methodology used for developing this model. The report also outlines limitations on the use of the map. It is not intended to predict the probability of landslide over any given period of time, but it is a useful tool for industry to consult when planning their activities in NEBC.



The Commission is a member of BC OGRIS. Other member organizations are the Canadian Association of Petroleum Producers and The Explorers and Producers Association of Canada.

FALL 2021 UPDATE - EXPANDING NORTHEAST B.C.'S WATER MONITORING NETWORK

The Commission Stewardship Water Team continued to build relationships this summer while working on BC Oil and Gas Research and Innovation Society and Geoscience BC projects. This article is an update to the Spring 2021 Community Connector article – Expanding Northeast B.C.'s Water Monitoring Network.

Project 1 update - Ongoing hydrometric monitoring continues as part of the BC OGRIS project at three of the four locations: Osborn River (Doig River First Nation), Le Bleu Creek (Saulteau First Nations) and Upper Aiken Creek (Blueberry River First Nations). The fourth site, at Martin Creek (Prophet River First Nation), will be relocated due to road deactivation in 2022. The OGRIS project has allowed us to build relationships with the First Nation communities and further develop the hydrometric program that led into the Geoscience BC project.

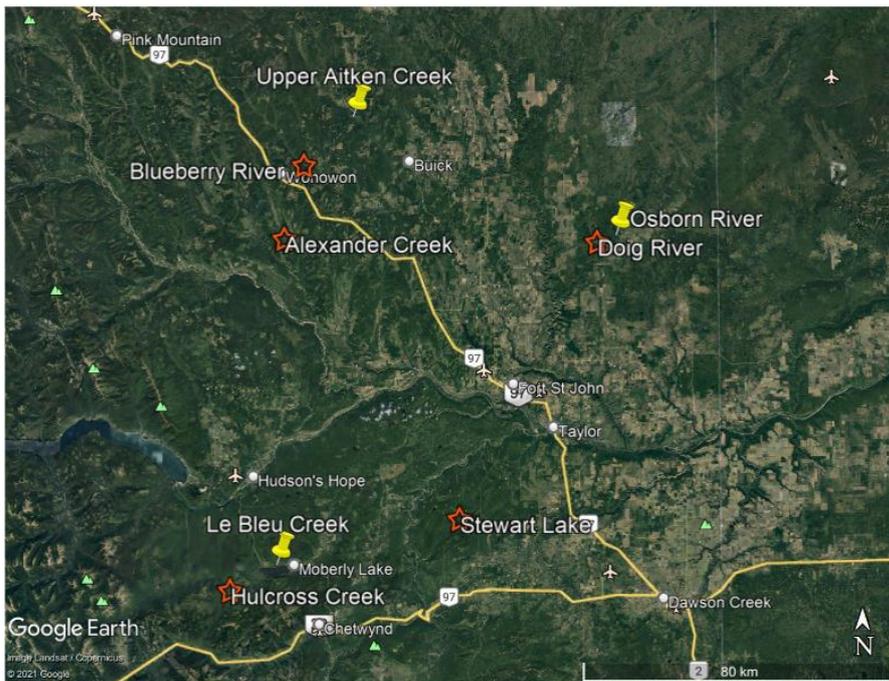
Project 2 update - Through the Geoscience BC "Pilot Collaborative Water Monitoring Program, Northeast B.C." the Commission, in collaboration with First Nation communities,

installed four additional hydrometric stations in August. These new stations are located in the Doig River (Doig River First Nation), Blueberry River (Blueberry River First Nations), Alexander Creek (Halfway River First Nation), and Hulcross Creek (Saulteau First Nations and West Moberly First Nations). The fifth and final station was installed on Stewart Creek (McLeod Lake Indian Band) in October.

The Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) Water Authorization Specialists from the Fort St. John office have been assisting with the monitoring and installation of both project stations.

This fall/winter an in-class hydrometric training session is scheduled for the First Nations within northeast B.C. Treaty 8. A field-based training session will be offered during the spring/summer of 2022.

The Commission Water Team is very excited to be leading these two hydrometric projects in collaboration with the numerous partners.



THE LOCATION OF BC OGRIS (EXCLUDING THE PRFN STATION) AND GEOSCIENCE BC HYDROMETRIC STATION LOCATIONS.



HYDROMETRIC STATION



Doig River Water Monitoring



Osborn River Water Monitoring

Learn more about the Northeast B.C. Water Monitoring Network by checking out our [YouTube channel!](#) We have two short videos of our Stewardship group, a water team comprised of our hydrologist and an environmental specialist, heading out into the field to monitor flows in streams across the northeast.

OUR LEED BUILDINGS

The Commission's Victoria and Fort St. John offices are LEED Gold certified buildings. LEED (Leadership in Energy and Environmental Design) is the most widely used green building rating system in the world. Building ratings are based on five major categories:

- Sustainable Sites
- Water Efficiency
- Energy & Atmosphere
- Materials & Resources
- Indoor Environmental Quality

LEED provides a framework to measure, manage and demonstrate sustainability. Green buildings, homes, and neighborhoods create a healthier indoor environment for occupants through better indoor air quality, less harmful products, and more natural daylight. They also reduce waste, conserve energy, decrease water consumption, and drive innovation.

The Victoria office building was designed to:

- Provide a high-quality occupant experience.
- Support the health of those working in it.
- Minimize the environmental impact of the building and its operations.

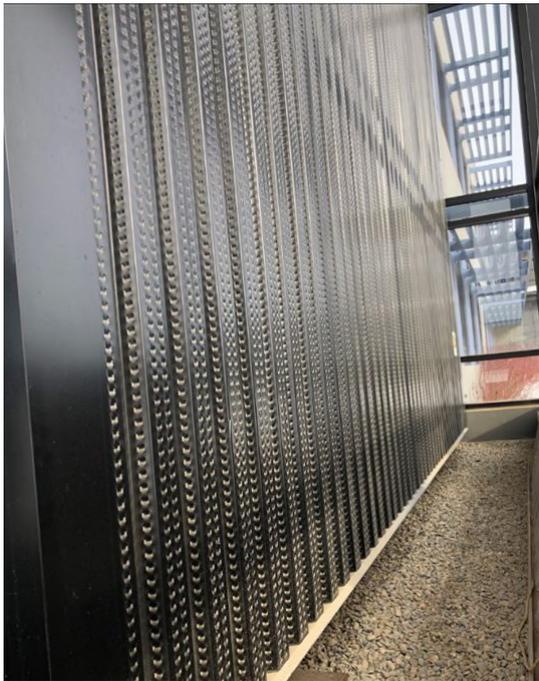
A notable feature included in this office is the automated blind controls. The automated system adheres to both predetermined schedules and the height and location of the sun using sensors on the roof. For instance, if the sun is shining into the windows on the southwest side of the building, the blinds in the affected area will lower automatically. This prevents the sun from affecting the indoor temperature, without having to rely on the mechanical cooling system.

The Fort St. John office building achieved a LEED Gold certification using:

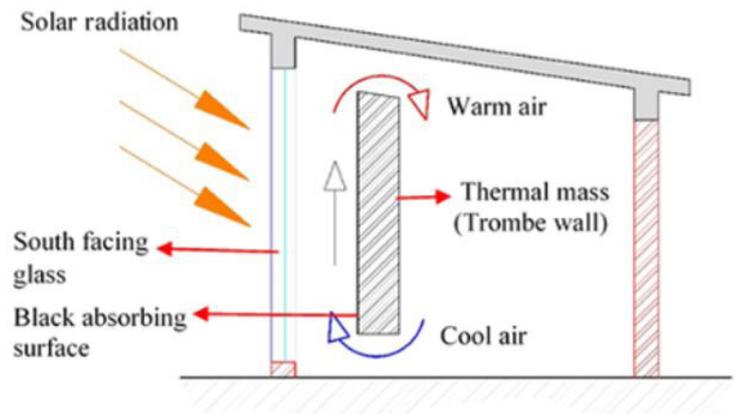
- An energy efficient building design.
- A high efficiency heating system.
- Energy efficient water fixtures.
- And much more!

One of the interesting features of the Fort St. John office is the solar wall. All incoming air into the building travels through the solar wall to increase the air temperature. On a sunny winter day, the solar wall can raise the temperature of the incoming air by 20-25 degrees Celsius.

It's important to note that although only two of the Commission's seven offices are LEED certified, every effort is made to operate all offices at a LEED Gold standard.



The image to the left is a trombe/solar wall located at the Fort St. John office. On a sunny day, in the winter, the solar wall raises the incoming air temperature between 20-25 degrees. The combination of the solar wall and the heat recovery unit generally result in overall heat gain on sunny days when the outdoor air temperature is above -10 degrees Celsius.



WEBINARS



Our past webinars are ready to watch at the touch of a button! We've produced nine to date, on topics relevant to land owners, other stakeholders and Indigenous nations. New webinars are presented regularly so check out the [webinars page](#) on our website. If you want to be notified about upcoming webinars or have ideas for new ones, please contact stakeholder@bcogc.ca.

WHY LEED?

Buildings generate nearly 30 per cent of all greenhouse gases, 35 per cent of landfill waste comes from construction and demolition activities, and up to 70 per cent of municipal water is consumed in and around buildings. It's clear that buildings can have a substantial impact on Canada's environmental goals.

SINCE 2005 LEED CANADA HAS LED TO:



Energy savings
of 20.7 million eMWh
which is enough to
power 700,000 homes
in Canada for a full year.



Recycling
over 3.82 million
tonnes of construction/
demolition waste, which
is enough to fill the
entire Roger's Centre in
Toronto 15 times.



Water savings
totalling over 37 billion
litres, enough to fill
almost 15,000 Olympic
swimming pools.



GHG reduction
A 4.04 million CO_{2e}
tonne reduction
in greenhouse gas
emissions which equates
to taking 860,000 cars
off the roads for a year.

Green roofs
390,000 sq. metres of
green roofs, enough to
cover 257 hockey arenas.

PHYSICAL AND CYBER SECURITY

The Commission is developing a regulation to promote better physical and cyber security practices in B.C.'s oil and gas industry. Permit holders will be required to assess risks, and to consider and implement measures to reduce the security risk to critical infrastructure, public safety, the environment, and security of energy supply. If approved by the Commission's Board, the regulation would adopt the Canadian Standards Association Standard CSA Z246.1, "Security Management for Petroleum and Natural Gas Industry Systems". The draft policy includes obligations to implement security measures, report security incidents when they occur, and addresses storage and submission of records.



VIDEO HIGHLIGHTS

How Oil and Gas Activities are Permitted in B.C.

The Commission regulates oil and gas activity within B.C. to protect public safety and the environment. Companies wanting to explore, develop and produce oil and gas resources in B.C. must apply to the Commission for oil and gas activity permits. Learn more about how the Commission permits activities by [watching this three-minute video.](#)

Oil and Gas Site Terms Explained

What is the difference between an abandoned well, a dormant well and an orphan well? There are six terms in [this two-minute video](#) used to describe oil and gas sites and what they mean.



ALP MONITOR AND COMMISSION STAFF MEMBER WITH THE CAMEL.

A CAMEL IN CLARKE LAKE

Fort Nelson First Nation (FNFN) has an agreement with the Commission to deploy the Commission Air Monitoring Environmental Laboratory (CAMEL). This agreement was based on concerns from FNFN and an interest in understanding potential airborne contaminants from energy resource development and the effects on water quality in areas used by FNFN members. After discussions with residents, Clarke Lake was chosen as the monitoring site and the CAMEL was deployed in June 2021. Monitoring at that location is ongoing. The operator nearest the CAMEL has been using the data to identify sources of emissions for follow-up.

The Commission is working with FNFN to identify another location for the CAMEL to conduct additional air quality monitoring.

Fort Nelson First Nation is one of 10 northern communities who participate in the Commission's Aboriginal Liaison Program (ALP) – a program managed by the Commission and currently in its fifth year of operation. The ALP provides opportunities for training and joint field inspections on oil and gas, mining, forestry and other natural resource activities, and aligns monitoring and inspection activities with Indigenous community interests and priorities. The ALP and its participants are supported by the BC Oil and Gas Research and Innovation Society.

Learn more about our monitoring equipment by visiting the [air quality page on our website](#).

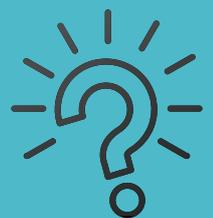


The CAMEL is a mobile trailer unit fitted with a full suite of sensory equipment designed to measure and record air contaminants - gases, liquids and suspended particulate matter with chemical properties that can impact air quality. The Commission uses CAMEL to monitor air quality which can be impacted by flaring, venting and equipment exhaust from oil and gas activities.

Being mobile and capable of continual collection and measurement of data, CAMEL can be deployed to measure air quality and potential sources of airborne contaminants in locations that do not have fixed air monitoring stations. Monitoring data collected by CAMEL is available to the public through the interactive web-based [Commission Air Tool \(CAT\)](#).

DID YOU KNOW...

...we're available for emergencies and to receive complaints through a 24-hour emergency telephone number at 1-800-663-3456. Each call is addressed individually, and an inspector may be dispatched to determine cause or resolve a situation.



LAND OWNER MEETINGS

The Commission's Stakeholder Relations team wants to speak with land owners to hear how energy development impacts you. Since the start of the COVID-19 pandemic, we haven't been able to meet face-to-face; however, we're happy to speak to you by phone or set up a virtual meeting. Please contact stakeholder@bcogc.ca if you'd like to arrange a time to talk.



DID YOU KNOW...

...more wells were decommissioned in 2020 than drilled? This is due in part to our Dormancy and Shutdown Regulation!

MEETINGS WITH LOCAL GOVERNMENT

Stakeholder Relations meets regularly with many local governments to understand how nearby activity affects their people and communities. Regular meetings allow us to give them the information they need to take back to their constituents. If you're a member of local government and you're interested in having a similar conversation, please contact us at stakeholder@bcogc.ca.





TO LEARN MORE ABOUT THE WORK WE'RE DOING



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