Montney Development in the South Peace
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Your feedback matters!
Please take a few moments to give us your opinion of:

Montney Development in the South Peace
The readership survey takes a very short time to complete. But we do want to know what you think and how we can continue to meet your need for relevant information about development in your area.

Please visit: www.encana.com/montneysurvey to begin the survey.
Thank you for your time.

This booklet provides an overview of our operations in the Montney geological formation and outlines what you can expect from Encana if we have operations on your land. In all areas where we operate, we are committed to working with landowners, residents, communities, local governments and regulatory bodies to build and maintain long-term, mutually beneficial relationships.
About Encana

Encana is a leading North American energy producer that is focused on growing its strong portfolio of diverse resource plays producing natural gas, oil and natural gas liquids.

Our industry-leading approach to resource development, called resource play hub, fosters the technological innovation and enterprise-wide collaboration, key to achieving the highest levels of capital and operating efficiency.

Encana is helping to reshape North America’s energy portfolio by providing a clean, affordable, abundant resource for future generations. By helping to grow the North American economy, Encana helps to build sustainable communities.

Even though the natural gas industry may be changing, our commitment to safety, the environment and the community is not. We conduct our business ethically and responsibly by striving to balance our development with environmentally sustainable practices. The health and safety of our employees, contractors and local communities continue to be our priorities.
Natural gas represents a more efficient fuel option for North America – both environmentally and economically.

Natural gas development

Natural gas is the viable energy option for a carbon-constrained world.

It’s clean.
Natural gas produces 25 percent less CO₂ emissions than oil and 50 percent less CO₂ emissions than coal.

It’s affordable.
It’s up to 20 to 30 percent more affordable as a transportation fuel than diesel or gasoline.

And it’s abundant.
With vast reserves unlocked by sweeping technological advancement, new supplies are now available.
It begins at the wellhead with the resource play hub, the innovative development model we pioneered. Technically speaking, a resource play hub is created when multiple deviated or horizontal wells are sequentially drilled, completed, tied in and produced from a single surface location or well pad to minimize surface disturbances.

The typical development cycle for a two or four well drilling program usually involves:

- choosing the location of wells, designing and negotiating land access with local landowners (two to six months)
- obtaining regulatory approval (two to three months)
- constructing lease and drill wells (two to three months)
- completing and hydraulically fracturing wells (1.5 to three months)
- bringing wells on production and sending the gas to market (one to two months)
- producing life of wells (30 to 40 years)
- abandoning wells and conducting reclamation activities at the end of the well life

For Encana, our approach to development involves continuous improvement to minimize our footprint.
Montney production occurs thousands of metres below the surface. Encana is focused on tight natural gas from the Montney geological formation, which is 240 million years old.

The rocks are generally fine grained tight deposits, formed in the lower shoreface and deep water turbidite environments. These deposits usually contain large amounts of gas, but due to the low porosity, they require multi-fracturing horizontal wells to produce economically. The average depth of the resources we are developing is 2,500 to 2,800 metres. This means there is always a great distance between non-saline aquifers and our production zone.
Encana works with landowners to ensure their interests are taken into consideration at the development planning stage.

Surface land/meeting with landowners

As part of the consultation process, our surface land representatives discuss the proposed development activity with you, gather information about your land and obtain your permission to survey the land.

At Encana, we do our best to create strong and lasting relationships in the communities where we live and work – partnerships with landowners and area residents are built on a solid foundation of integrity. Our ability to explore, develop and produce natural gas is dependent on the actions we take to build and maintain rapport, respect and trust with landowners and the public.

At Encana all land agents, including our brokers, are expected to uphold our principles and high standards. When working with landowners and the public, our land agents will:

- share pertinent information regarding a project
- communicate openly and honestly throughout the life-cycle of a project
- fully listen, understand, assess and find ways to address the issues and concerns of stakeholders in relation to the proposed project(s)
- work together with landowners and others in the area to determine preferred locations for well sites, access roads and/or pipeline to minimize interference with current land use
- ensure that those with whom we negotiate are treated equitably
- deliver on promises and uphold commitments

Our continued success in land negotiations is dependent on continued positive relationships in our communities.
Environment

Land
We are committed to the stewardship of our land and minimizing surface disturbances. We collaborate with local authorities and government agencies to ensure a coordinated approach surrounding land use.

Our surface restoration reclamation program aims to restore surface impact to original or better conditions, in accordance with applicable legislation.

Air
We focus on ways to reduce air pollutants, decrease flaring and improve energy efficiency. Some of the ways we reduce emissions include inline testing to reduce flaring during completion operations, using electrically-powered equipment (where possible), incineration technology and the use of vapour recovery units to capture routine, low-pressure emissions.

At Encana we recognize water resources are critical for all of us and are essential to our communities.

Water
Water requirements and the challenges posed by our operations require tailored approaches to water management – protecting water and using this valued resource wisely is critical to our ongoing success. Currently, most of our water comes from private dugouts, municipal sources, produced water and provincially licensed source water wells.

We have a proven process in place to protect groundwater before, during and after the drilling process. We employ properly engineered wellbore construction methods (selection and application of casings and cement) to isolate and prevent any gas or fluids in hydrocarbon-bearing formations from migrating into groundwater aquifers.

We also seek opportunities to use alternative sources of water in our drilling and completions operations. This could be water that’s located far deeper than typical water wells and drinking water aquifers or water that is of too poor a quality for domestic or agricultural use.

This well pad has ~5 percent the disturbance area vs. the comparable vertical well scenario
six horizontal wells
(fifteen fractures/well = 90 total frac's per 1 1/2 section of land)

Same development would require 90 vertical wells each on a separate 100 m x 100 m pad

We all need water.
We all need energy.
It’s not a question of one or the other.
It’s a matter of using both responsibly.
Road and lease preparation

We construct lease and access roads in a safe and efficient manner, taking care to minimize community and environmental impact.

Our practices include engaging with local landowners and other developers to maximize the use of existing roads or other linear disturbances and choosing sites with less local impact.

All employees and service providers are expected to reduce their speed on lease and access roads and apply dust suppressants as conditions require.

We are continually looking for more environmentally responsible products. For example, we have recently tested a new biodegradable canola-based dust suppression product on a high traffic road in the Dawson Creek area.
Minimizing surface disturbances from our operations is one of our top priorities. Part of our continuous improvement approach is to look at ways to increase efficiency and reduce impact.

Drilling longer horizontal wells and developing multi-well pad sites result in fewer individual well sites, access roads, pipelines and equipment moves. Typically, one long horizontal well can replace 15 or more vertical wells. And, multi-stage hydraulic fracturing means fewer wells per lease site.

During drilling and completions activities, we practice active traffic management, monitoring roads for grading and snow removal as well as self-imposed traffic rescheduling and rerouting (where possible) based on community priorities. The noise associated with drilling and well completion activities is temporary. Noise suppression measures are used to reduce noise impacts through barriers, improved generator mufflers and conducting noise studies to identify further noise reduction opportunities.

More production from fewer well pads is our goal, while seeking to increase efficiency and reduce surface impact.
We work hard to continuously improve our performance by designing, building and operating our facilities safely and reducing environmental and community impacts where possible.

Our goal is to limit the inconvenience to nearby residents. We reduce noise by using electric-driven compressors, acoustical building enclosures and conducting noise attenuation studies as required.

We all have a responsibility anytime we disturb the ground. It’s just as important to be careful at home as at work. Encana is a member of provincial One Call organizations in Alberta and British Columbia. We are committed to the prevention of damage to buried pipeline and other facilities and adhere to safe ground disturbance guidelines.

Please do your part and call before you dig.

1.800.242.3447  1.800.474.6886

Our work involves designing, building and operating facilities safely and reducing environmental and community impacts. Here are some examples of our practices:

- Using centralized facilities to reduce surface impact.
- Using ultrasonic inspection of above-ground facilities to help detect anomalies.
- Actively capturing and conserving gas previously vented.
- Helping ensure safe pipeline operations with integrity programs that use "smart pigs", chemical inhibition and cathodic protection.
- Using preferred routing to minimize impacts of Encana traffic.
- Ensuring proper pipeline reclamation practices are always followed.

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We demonstrate our commitment to safety in our operating communities by:

- having dedicated field safety staff
- providing detailed safety training for employees
- establishing contractor and service provider safety requirements
- conducting regular emergency response exercises and drills
- working closely with industry associations to improve safety across the industry

Emergency response and workplace safety are integral to our operations. We continue to make improvements so that incidents can be avoided. If there is an incident, we will manage it effectively and mitigate any potential impacts on the community and the environment and in accordance with applicable laws and regulations.

At Encana, it’s safety above all else.
Encana establishes practices and procedures that ensure impacts to wildlife are minimized through effective planning and responsible development.

Our wildlife and habitat practice involves detailed, preliminary planning exercises which include:

- incorporating habitat map data in the development planning process
- determining species and sensitive habitat features that may occur in the area
- reviewing wildlife timing windows and setback distance guidelines
- identifying areas for wildlife and habitat assessments and development of wildlife mitigation plans
- understanding all relevant provincial and federal regulations and guidelines

Some examples of wildlife and habitat considerations:

- wetlands and riparian areas
- species at risk
- wildlife habitat features, such as dens and nest sites
Encana’s stakeholder engagement and community investment programs go hand-in-hand and are vital to our overall business strategy.

In your community
We take our responsibilities to the communities in which we operate very seriously.

Courtesy Matters®
The Courtesy Matters® program is about our commitment to being courteous and maintaining honest dialogue with our stakeholders as well as addressing the potential concerns created by our operations. It provides a clear set of expectations for employees and those representing Encana, resulting in on-the-ground actions that lead to positive, respectful behaviours.

Key to our approach:
- enhanced communications to create awareness, mutual understanding and learn about concerns
- meaningful engagement to build trust and understanding, which leads to collaboration and resolving issues together
- community investment contributes to the well-being of the communities near our operations
- support of communities through direct and indirect employment opportunities and overall involvement with the community by our staff and contractors
- responsive Courtesy Matters program to address and reduce impacts related to our activity

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