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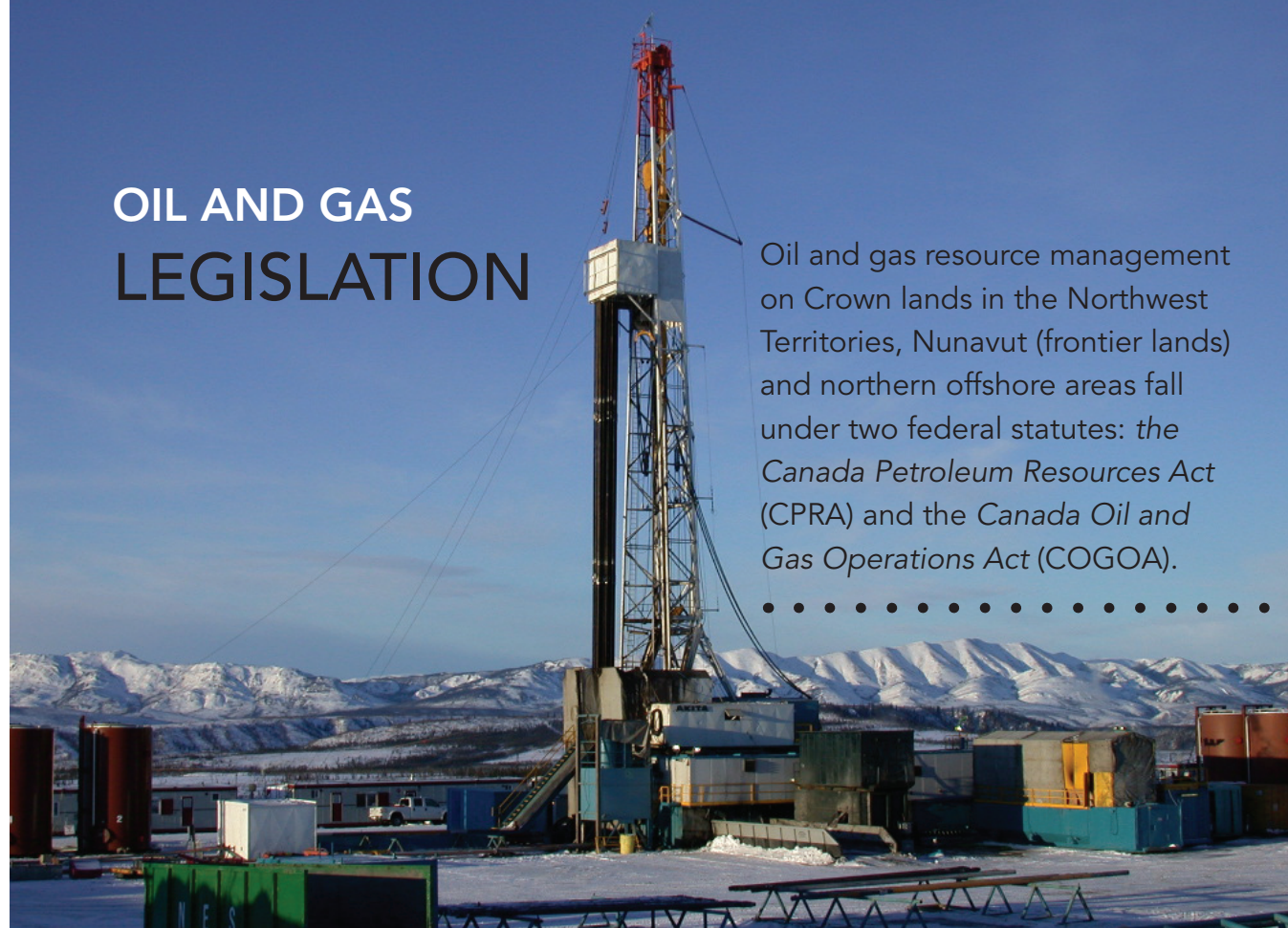
Affaires indiennes
et du Nord Canada

OIL AND GAS **EXPLORATION & PRODUCTION** IN THE NORTHWEST TERRITORIES

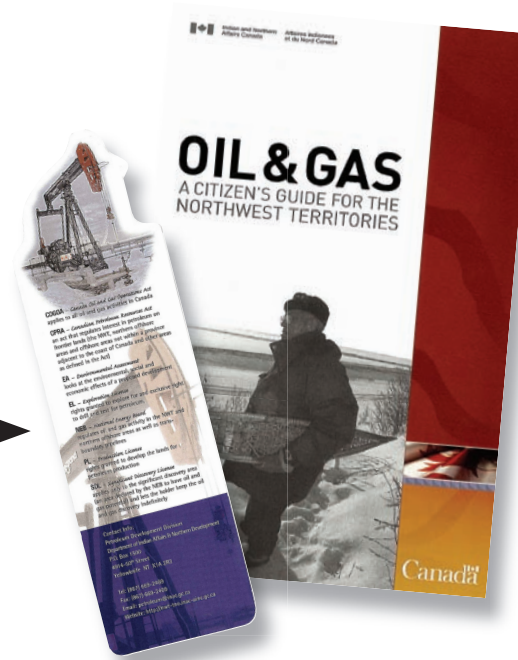


Canada

OIL AND GAS LEGISLATION



Oil and gas resource management on Crown lands in the Northwest Territories, Nunavut (frontier lands) and northern offshore areas fall under two federal statutes: the *Canada Petroleum Resources Act* (CPRA) and the *Canada Oil and Gas Operations Act* (COGOA).



GETTING STARTED

To explore for oil or gas on Crown lands (Government of Canada) in the Northwest Territories (NWT) and the northern offshore areas, companies need to access land. The process for getting oil and gas rights to subsurface (underground) Crown (Government of Canada) land in settled and unsettled claim areas is called the Rights Issuance Process. This is managed by the Government of Canada, Indian and Northern Affairs Canada (INAC), Oil and Gas Management Directorate.

There are five steps in the Rights Issuance Process:

1. companies or individuals contact INAC's Oil and Gas Management Directorate in Ottawa in writing to express their interest in an area or region; and/or
2. government representatives meet with Aboriginal land managers and community members in that area or region;
3. once certain parcels (sections) of land have been agreed upon, the Minister of INAC's Affairs and Northern Development issues a Call for Nominations which is generally open for 30 to 90 days. Companies or individuals then nominate parcels that they are interested in;

4. once nominations are received, the Minister issues a Call for Bids on the nominated parcels. The call is open for 120 days and companies or individuals bid on parcels they are interested in;
5. the winning bidder receives an exploration licence to explore for oil and gas; the company or individual willing to spend the most exploration dollars on the parcel wins the bid.

To explore for oil and gas on private lands in the Inuvialuit Settlement Region (ISR), the Gwich'in Settlement Area and the Sahtu Settlement Area, companies must contact the Aboriginal government or regional authority.

LICENCES, AGREEMENTS, PERMITS & PLANS

EXPLORATION LICENCE (EL): this licence gives the company the exclusive right to explore, drill, and test for oil and gas, develop land for production and obtain a production licence on Crown land. This licence, issued by the Minister of Indian Affairs and Northern Development, may be granted for up to nine years.

SURFACE EXPLORATION: seismic operations, geological surveying, and remote sensing may be carried out without an exploration licence. However, the operators must get the appropriate approvals from other agencies such as the First Nation development corporation or the land and water board. For example

– a land use permit is required from the land and water board.

SIGNIFICANT DISCOVERY LICENCE (SDL): when oil and/or gas is discovered, a company applies to the National Energy Board (NEB) for a significant discovery declaration (SDD) and to INAC for a significant discovery licence (SDL). However, the significant discovery licence will not be issued until the significant discovery has been declared. This licence covers the area of the discovery and provides indefinite ownership to the discovery. An SDL replaces the exploration licence but gives exactly the same rights.

PRODUCTION LICENCE: once a company has decided that the oil and/or gas can be commercially produced, they apply to the NEB for a declaration of commercial discovery. This defines the area to be developed and is required before applying for a production licence. The Minister of Indian Affairs and Northern Development issues the production licence for a term of 25 years. This replaces the significant discovery licence.

PERMITS: Additional permits are required from other regulatory authorities before the company can conduct its operations on the land. Land use permits and water

licences are required before any work takes place on an exploration licence, or if a different kind of licence is being requested – for example – a significant discovery licence. In order for a company to produce oil and gas under the *Canada Oil and Gas Operations Act* (COGOA), they require other authorizations from the NEB.

ENVIRONMENTAL ASSESSMENT: As part of the permitting process, land and water boards conduct a preliminary screening of the project and determine whether or not a permit is to be issued at that time or if an environmental assessment is necessary.

CONSULTATION

Discussions and meetings with Aboriginal communities and designated Aboriginal organizations are very important, and in some cases, specifically required by land claim agreements. Communities and Aboriginal organizations are consulted and notified

prior to opening any lands in their traditional area for oil and gas exploration. Support of the potentially affected Aboriginal communities is an important consideration for the Minister in inviting companies to explore Crown lands.

BENEFITS PLANS

The benefits plan is developed by the company in consultation with the affected communities where the proposed oil and gas activity may happen. The benefits plan must be approved by the Minister of Indian Affairs and Northern Development before the National Energy Board (NEB) can approve any work or activity on Crown lands.

Benefits plans present the actions a company will take to consult with, and inform, communities and businesses before and during the proposed activity. Companies are also required to submit an annual report which describes the employment, training and business benefits that occurred from the oil/gas activity.

EXPLORATION

This is the first step in locating the underground (subsurface) rock formations that may contain oil and/or gas. Geologists and geophysicists study the exposed rocks on the surface, and use various techniques including low-impact seismic (with helicopter-portable equipment) and magnetic and gravity surveys to explore and determine what might be underground.



DRILLING

In order to find out whether or not oil or gas exists deep underground, companies must drill a well several kilometres below the surface: this is an exploration well. If nothing is found, the exploration well is a dry well. It is plugged with cement and the site cleaned up leaving little surface trace, except for a location marker.

If oil or gas is found, this is known as a discovery well.

If oil and/or gas is found in large enough quantities to produce oil and/or gas, it may become a production well.



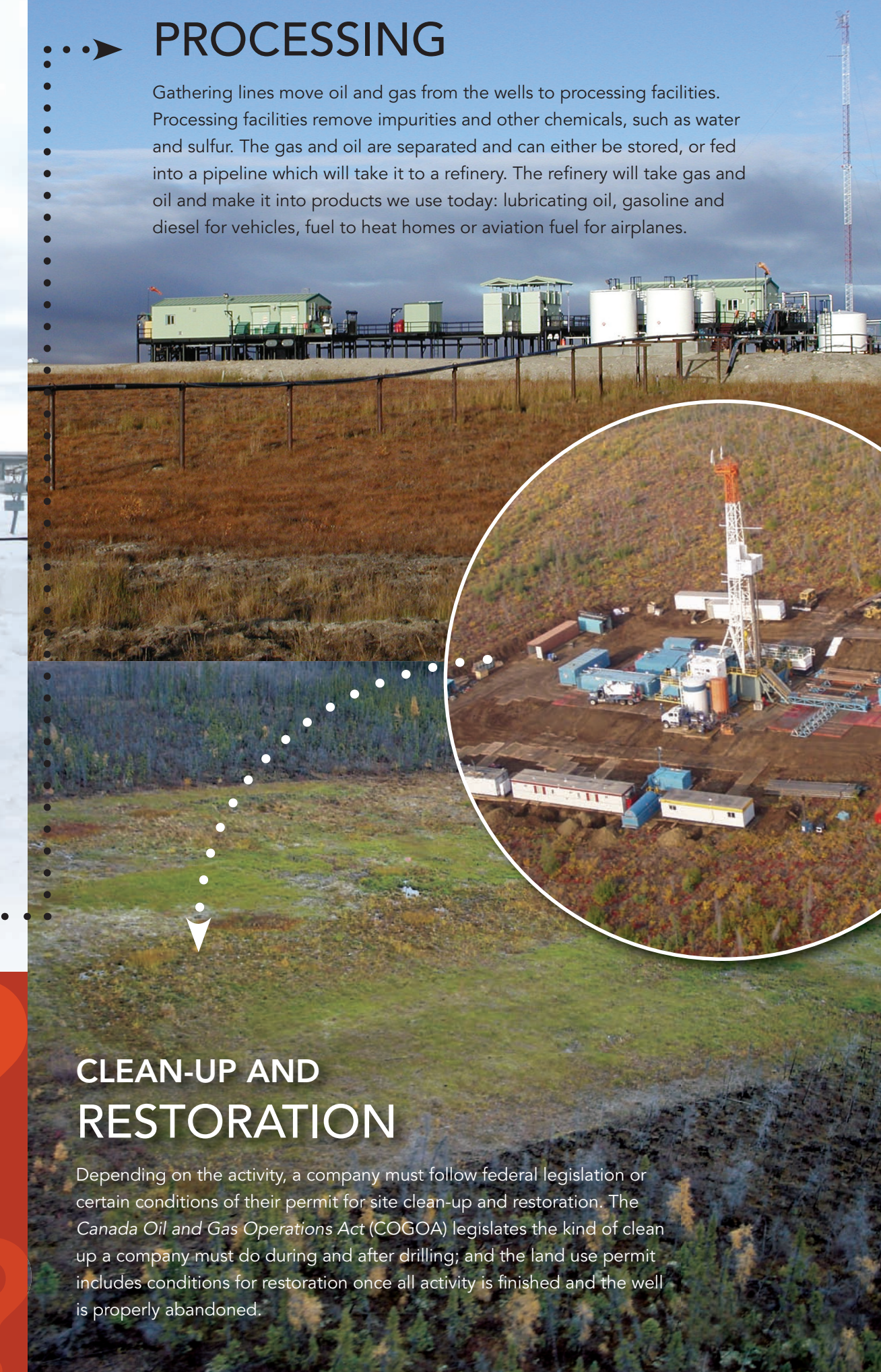
PRODUCTION

The production stage is about getting the oil or gas to the surface and to the markets.

Gas moves through the pores in the rock and to the surface more easily than crude oil, which usually has to be pumped to the surface by a pumpjack.

PROCESSING

Gathering lines move oil and gas from the wells to processing facilities. Processing facilities remove impurities and other chemicals, such as water and sulfur. The gas and oil are separated and can either be stored, or fed into a pipeline which will take it to a refinery. The refinery will take gas and oil and make it into products we use today: lubricating oil, gasoline and diesel for vehicles, fuel to heat homes or aviation fuel for airplanes.



ENVIRONMENT

The environment is a priority. Northern knowledge of the land, innovative techniques, changes in equipment, and new procedures and technology, have reduced the impact on the environment.

Strict environmental assessment and monitoring procedures, integrated land management plans and sharing information help to ensure the future of the land for many generations.



NWT STATS

In the NWT between 1996 and 2006, a total of 56 Exploration Licences have been issued and 192 wells drilled including:

101 EXPLORATORY WELLS – These wells are drilled at a spot where no oil or gas has been discovered before, but the geoscientists/company think there is a chance for a discovery. These are sometimes also called wildcat wells.

43 DELINEATION WELLS – These wells are drilled where oil or gas have already been discovered, and the geoscientists/company want to know how big the oil or gas pool is, so they drill some more wells close to the original discovery.

48 DEVELOPMENT WELLS – These wells are drilled to get the oil or gas out of the ground, or otherwise manage the production from the reservoir of oil or gas.

DID YOU KNOW?

A Canadian football field is approximately 1.5 acres making the average drilling rig site about 4 football fields.

The first well drilled in the NWT was near Norman Wells in 1920 – this was the most northerly well drilled at the time.

We believe that First Nations people used oil seeping from the ground to seal the seams on their canoes.

The Grandview Hills Well, drilled northwest of Fort Good Hope in 1947, was the most northern exploration well anywhere in the world at that time.

CLEAN-UP AND RESTORATION

Depending on the activity, a company must follow federal legislation or certain conditions of their permit for site clean-up and restoration. The *Canada Oil and Gas Operations Act* (COGOA) legislates the kind of clean up a company must do during and after drilling; and the land use permit includes conditions for restoration once all activity is finished and the well is properly abandoned.

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