

WEST COAST OIL PIPELINE

Working Together to Protect Land and Water



Responsible resource development and environmental stewardship go hand in hand. **Protecting land, water and ocean ecosystems** is central to discussions about any potential pipeline and oil export project.

Working with **Indigenous communities**, Alberta's government is advancing a world-class oil export project designed to protect the environment while delivering long-term economic benefits for people across Canada.

As we advance planning for the proposed project, **safety—for people and the environment—is our top priority.**

That's why we want to share, listen and learn, so together we can design a project that protects what matters most.

LEARN MORE

Website: alberta.ca/west-coast-oil-pipeline

Alberta

PIPELINE SAFETY

High Standards, Proven Performance

Pipelines are a **safe, reliable and environmentally conscious** way of transporting oil and gas. Spills, leaks and ruptures are rare: on average each year, **99.999 per cent** of the oil transported on Canada's federally regulated pipelines **moves safely to its destination**.

Prevention is our top priority at every stage of the pipeline life cycle—from planning and design to construction and operations. **Indigenous communities are integral partners** in project design, providing local and traditional knowledge that informs planning and decision-making. Indigenous monitors oversee environmental and cultural compliance from planning through construction and operations.



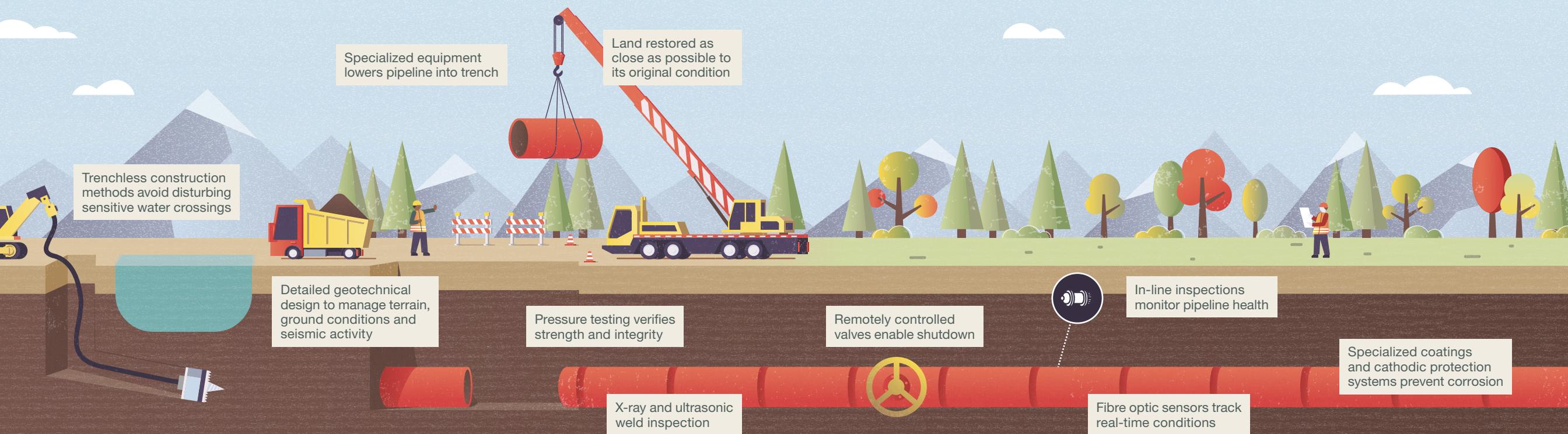
Regular aerial surveys and on-the-ground inspections



24/7 monitoring using satellite data

CONSTRUCTION

OPERATIONS



Pipeline construction follows a rigorously controlled process to **ensure safety and minimize environmental impact**.

Before work begins, the route is carefully selected **in consultation with Indigenous and local communities**. The most suitable construction methodologies are selected **based on the topography**.

The route is surveyed and marked, vegetation is selectively cleared, and topsoil is removed and **stored for later reclamation**. Pipe sections are then laid out, **bent to match the land's contours** and welded together.

Each weld is **inspected using advanced testing methods** such as X-ray or

ultrasonic technology to confirm quality and integrity.

The pipeline is installed by excavating a trench and **carefully lowering pipe into place**, with trenchless methods like directional drilling used in **sensitive areas like water crossings** to avoid disturbance.

After backfilling, the pipeline is pressure-tested at levels **above normal operating conditions to verify its strength and integrity**.

The process concludes with cleanup and reclamation, **restoring the land as closely as possible to its original condition**.



Pipeline operations rely on **multiple overlapping safety systems** designed to prevent incidents and detect issues early.

Pipelines are monitored 24/7 from central control centres using real-time data, supported by regular aerial surveys and on-the-ground inspections.

Pipelines are **engineered and maintained to strict safety standards**, with protective coatings and corrosion-control systems in place. **Remotely controlled valves can quickly isolate and shut down sections of a pipeline** if abnormal conditions are detected.

A range of advanced technologies helps strengthen pipeline safety.

Flow meters **track changes in flow** that may indicate a leak, while fibre optic cables **monitor temperature, vibration, ground movement and external activity** along the pipeline route.

Internal inspection tools, known as smart pigs, **regularly scan pipelines from the inside**, and if potential issues are identified, targeted integrity digs are carried out to **inspect, repair and restore the affected area**.

SAFE SHIPPING

World-Leading Tanker Spill Prevention

Protecting the ocean matters because it **sustains communities, cultures and ecosystems**. It's also a **major transportation route for global trade**—moving more than 80 per cent of the world's goods and commodities by volume.

Oil is the **most widely traded** maritime commodity. And **a lot has changed** since the Exxon Valdez tanker spill in Alaska in 1989. Since then, Canada has implemented some of the **world's toughest safety standards** to prevent spills, strengthen oversight and **improve preparedness** on land and at sea.

Off the coast of British Columbia, there **hasn't been an oil tanker spill in more than 50 years**. That strong track record has continued even with increased tanker traffic.

MARINE SAFETY



READY TO RESPOND

In the **unlikely event** of a spill, certified response agencies are ready to act **day or night**. On British Columbia's coast, this role is carried out by **Western Canada Marine Response (WCMRC)**.

If a **spill is reported**, the Canadian Coast Guard assesses the situation and determines the response under Transport Canada's regulatory framework. Federal, provincial, municipal and First Nations **partners are notified**, and **vessels and equipment are deployed**.

A Unified Command coordinates operations as crews work to **contain the spill, protect shorelines and recover oil**.

Response efforts rely on **proven tools**: floating booms to **contain oil and protect sensitive areas**; skimmers to remove oil from the water's surface; and absorbent materials to recover **remaining traces**.

Shoreline cleanup follows, supported by **long-term monitoring** and recovery planning.



AERIAL SURVEILLANCE: Patrol aircraft monitor ships and can detect spills as small as one litre

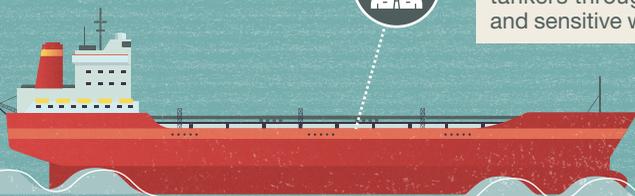
SPILL RESPONSE READINESS: Equipment is staged near shipping lanes for rapid response

ESCORT TUGBOATS: Ocean-going tugs provide added control and safety



LOCAL MARINE PILOTS: Licensed pilots guide tankers through busy and sensitive waterways

DOUBLE-HULLED TANKERS: Two watertight layers protect the oil cargo from the sea



VESSEL INSPECTIONS: Ships are regularly inspected and can be refused entry if standards aren't met

NAVIGATION AIDS: Buoys and lights mark hazards and safe shipping routes

