## Transporting crude oil.

At TC Energy, ensuring our pipelines and other facilities operate safely is the most important aspect of our business.

Making sure that the oil is safe to transport is a top priority for TC Energy.

## Making sure it's safe to transport

TC Energy transports many different types of crude oils to market, including light crude, synthetic crude, heavy oil and diluted bitumen. We all rely on these critical products for the energy we use every day to heat homes, fuel vehicles, power businesses and manufacture the goods and materials that enhance our lives.

Before any type of oil enters our pipelines, we conduct multiple tests to ensure the oil is the highest quality and safe to transport. It must meet or exceed standards including viscosity, temperature and sediment and water content, and it can not contain sand, dust, dirt or other impurities. Raw bitumen is not transported through TC Energy pipelines. Instead, raw bitumen is blended with other types of petroleum products, resulting in a product called diluted bitumen. Diluted bitumen is similar to other types of crude oils in terms of composition and physical characteristics, and has been proven to be safe for transport through pipelines.

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Every batch of oil is rigorously tested to ensure it meets proper specifications before it enters the pipeline.



## Facts about diluted bitumen

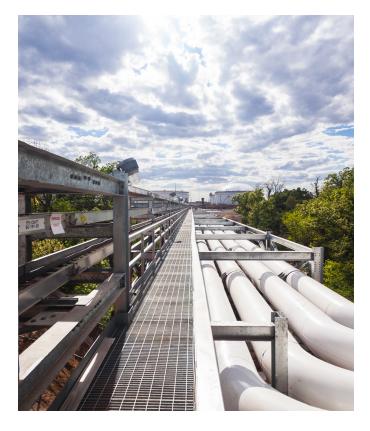
Multiple studies conducted by some of the world's leading and most respected scientific research organizations have all concluded that diluted bitumen does not pose any additional risk when transported through pipelines.

Studies performed by the National Academy of Sciences, Natural Resources Canada, Battelle Memorial, Penspen Institute, Alberta Innovates and the American Petroleum Institute all found that:

- Diluted bitumen does not cause pipeline failure or ruptures
- The chemical and physical properties of diluted bitumen are similar to other types of crude oils
- There is no evidence that transporting diluted bitumen through pipelines is more likely to cause a pipeline failure than other types of crude oils

• Diluted bitumen which flows through a pipeline has density and viscosity levels similar to other types of crude oils

There is no evidence that transporting diluted bitumen causes internal corrosion or erosion to the interior walls of a pipeline. For over 65 years we have demonstrated a world-class safety performance and have one of the best safety records across our industry. Getting it right is more deeply important than ever, and we care deeply about the safety and people who work at, and live near, our facilities.



No one has a greater interest than we do in ensuring that our assets operate safely.