

PROJECT OVERVIEW

The proposed 516-kilometre long Bison pipeline will transport bitumen from the Athabasca Oil Sands near Fort McMurray to the Edmonton area. The project includes:

Pipeline

- Approximately 516 km of 762 mm (30 inch) insulated pipeline - from the True North Energy's Fort Hills site to the Edmonton Pipeline Hub (SE1/4 05-53-23 W4M).

Facilities

- Initially three pump stations located near Fort Hills, in the Meadow Creek area and about 35 km south of Wandering River.
- Initially six storage tanks, each with a capacity of 79,490 cubic metres (500,000 barrels) – three at Fort Hills and three in Edmonton.
- Cooling and blending facilities in Edmonton.

Both the size of the pipeline and the number of facilities along the route may change depending on shipper commitments prior to the construction of the project.

AN INSULATED PIPELINE

The Athabasca oil sands are composed of about 70% sand and clay, 10% water and 0-18% heavy oil, known as bitumen. Once separated from the sand, bitumen is a thick, black, slow-moving petroleum product not easily transported by pipeline.

To overcome the transportation challenges, bitumen and heavy oil have been transported through the use of "dilbit systems", which usually consist of two parallel pipelines. One pipeline carries diluted bitumen to markets and the other line transports diluent to production facilities where it is blended with bitumen. Another transportation approach involves upgrading bitumen to synthetic crude oil, prior to shipping.

In recent years, insulated pipelines have been successfully designed, built and operated. Bison proposes to use a single insulated pipeline to help retain the temperature of bitumen, which is heated as part of the oils sands processing. An insulated system uses the combination of a higher flowing temperature and insulation to keep the product at a pumpable, liquid state. The temperature of the bitumen inside the pipeline may range between 80° and 120° C.

HAS AN INSULATED PIPELINE BEEN USED ELSEWHERE?

Existing pipelines in Alberta and around the world use this technology. The ECHO Pipeline (originally constructed in 1997 and expanded in 2001) between Elk Point and Hardisty and the Caroline Pipeline (constructed in 1993) both have excellent operating histories. The Pacific Pipeline System in California (constructed in 1997) also uses the same design and operating principles as the Bison Pipeline. A new insulated pipeline in the Fort McMurray area, recently constructed by Enbridge, will begin operations in late 2002.



HOW DOES THE INSULATED PIPELINE WORK?

Bison will design and construct the insulated pipeline to meet all codes and standards. This will ensure that safety and environmental impacts are comparable to conventional lines. Features like the steel pipe wall thickness, valves, insulation and burial depth contribute to safe operation with minimal environmental impact.

Wall Thickness - The 762 mm steel pipe will be approximately 10 mm thick for most of its length. An extra thickness of up to 15mm will be provided under river, road and railway crossings.

Coating - The steel pipeline will be coated with an insulating layer of polyurethane foam, which is protected by an outer layer of polyethylene (plastic). The foam, similar to the expanding foam available in spray cans at hardware stores, helps retain most of the bitumen's heat as it flows through the pipe and dramatically reduces heat loss to the soil. The outer plastic protects the foam and ensures a water-tight system.

Burial Depth - The pipeline will be buried at a depth of approximately 1.8 metres. The increased burial depth provides further insulation, improves the operation of the pipeline and increases safety and security.

The bitumen in the pipeline will cool as it flows downstream. Initially, gas fired heaters at the pump stations will be used to provide additional heat to the flowing bitumen. These heaters will be designed to meet or exceed provincial and federal noise and emission standards. As flows on the system increase, the need for extra heat will be reduced or completely eliminated.

These features mean that when constructed and in operation, Bison Pipeline will behave like a conventional line. The temperature at the ground surface above the pipeline will be comparable to that of other pipelines.

FOR FURTHER INFORMATION:

Please check our website at www.bisonpipeline.com or contact:

BISON PIPELINE LTD.

Suite 2700, 300-5th Avenue S.W.

Calgary, Alberta, T2P 5J2

Toll Free: 1-866-514-6700

Fax: (403) 514-6459

E-mail: info@bisonpipeline.com

