



## TransCanada Humber River Mainline Extension

### CLIENT

TransCanada

### GENERAL CONTRACTOR

Bannister Pipelines

### LOCATION

Humber River  
Vaughn, Ont.

### EXECUTION

2017

A failed Horizontal Directional Drilling Installation (HDD) by another contractor allowed IPC to rise to the challenge of completing this crossing with the Direct Pipe method.

This 800m of 42" diameter pipeline installation brought several unique challenges to the IPC team. This crossing was completed in one 800m long pipe string - the longest single pipe string installation completed in Canada. The crossing also presented a 60m elevation change from the lowest point in the drilling alignment to the highest point of the pipe string. Paired with a 10-degree entry angle, equipment and fluid handling needed to be designed to suit the unique project requirements.

During the course of the project, the IPC team drilled up to 218m in 24 hours, which is a notable accomplishment and was recognized as a Performance World Record for 2017. This is a testament to the skill and diligence of the IPC team and to the capability of the technology.

This crossing was executed by IPC simultaneously to another Direct Pipe Installation IPC was working on in the province of British Columbia. This was the first Direct Pipe simultaneous installation by a contractor in North America.



## CHALLENGES

- The DPI drill path was designed between the failed HDD borehole and the surface.
- The drill path needed to pass through disturbed and fractured zones.
- Crossing of the Humber river and tunneling through a high water table.
- Steep entry angle and slope combined with extreme weather conditions created safety concerns.
- 60m elevation change - first time for Direct Pipe.

## ACTION

IPC's experienced crews prepared the equipment and site to be able to handle these obstacles. Close communication with the Clients and General Contractors on site personnel allowed a safe and on-time execution.

## RESULT

Aside from the typical technical and construction challenges that occur during trenchless installations, IPC delivered the client a product pipe and saved the project schedule.

