

# BULLETIN

News from SubTerra, Inc.®

## ***Microtunneling for the Processing of Oil Sands near Fort McMurray Alberta, Canada***

*Microtunneling was selected as the method of excavation and installation of permanent steel pipelines to supply year-round water for the processing valuable oil sand deposits. The microtunneling alignments originated from a deep wet well shaft to the edge of the Athabasca River, where a large cofferdam was constructed for the retrieval of the microtunnel boring machine and subsequent construction. The project engineering consortium, Muskeg River Contractors, contacted **SubTerra, Inc.**, to provide expert review and guidance during all phases of tunnel construction.*



**SubTerra** provided support for all phases of the project including: preliminary design, contract specifications, pipe selection, equipment selection, jacking frame configurations, final design, construction methods, progress reporting, contractor review, and construction inspection during microtunneling operations.



The four alignments comprised approximately 1000 feet of installed Permalok steel pipe, and originated in the bottom of a 60-ft deep secant pile wall shaft. Ground conditions consisted of hard claystone that became extremely “sticky” when exposed to water, which limited the overall progress to less than 3-ft of excavation per hour.

The project was completed successfully, which enabled the owner, Albian Sands, to realize their initial production goals of 150,000 barrels per day.

