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4200' HDD CROSSING FOR 20" PIPELINE COMPLETED IN SOLID ROCK IN SUB ZERO WINTER CONDITIONS.

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ABSTRACT: Mears has recently completed a HDD crossing of an environmentally sensitive river in a remote area of the Yukon Territory in the Canadian North.

The Labiche River, an spawning ground for trout, was crossed with a HDD crossing during the winter months of January and February when typical daytime temperatures dropped below minus 20 degrees Fahrenheit. The replacement crossing for an existing 20 inch diameter high pressure sour gas pipeline was drilled through solid rock over its 4200' length.

The work crossing was installed at a location 60 miles from the nearest permanent road. This necessitated the use of ice roads and bridges to traverse the difficult and environmentally sensitive terrain. The work had to be done after freeze up at the beginning of January and had to be complete before start of the thaw early in March. The tight schedule and the cold temperatures required that the work be done on a grueling 24 hour per day 7 day per week basis.

Difficult ground conditions that included boulders and a water bearing gravel seam with high artesian pressures required the installation of a large diameter steel casing to deep depths before the HDD work could begin. The bedrock proved to be highly reactive shale that further complicated the drilling operations.

Completion of the project required that operation of the high pressure natural gas pipeline be interrupted to allow the new crossing to be tied into the existing line.

The project was successfully completed within the tight schedule while complying with stringent environmental controls.