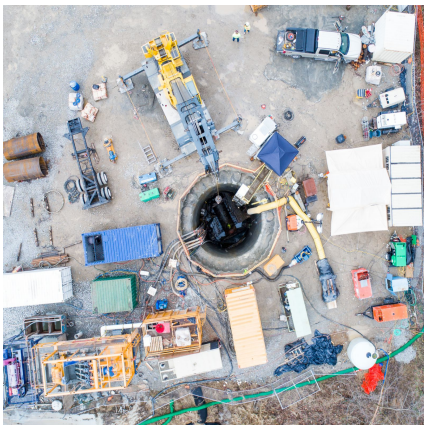


## Power Industry Raw Water Intake Southwest Pennsylvania, PA



### PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction installed a 320' tunnel into the Monongahela River in southwest PA. The 60" welded steel casing tunnel was installed through 25 ksi limestone which transitioned into the river bed consisting of sand and gravel. The tunnel was installed out of 60' deep secant pile shaft, with the tunnel 20' below the typical river elevation. Once driven to station, the MTBM was excavated and recovered subaqueously. Bradshaw then installed 24" HDPE and three 2" welded stainless steel airburst lines for the power plant raw water intake. Project challenges included transitioning from the very hard limestone into the river alluvium. This project was also constructed as the COVID-19 outbreak was first spreading, resulting in a one-week shutdown. Despite the delay, which jeopardized the drive due to the pipe string locking up from inactivity, Bradshaw was able to resume pipe-jacking operations and complete a safe and successful project.



### PROJECT INFORMATION - 600

#### OWNER:

Not Available (Private)  
Garney Companies, Inc (GC)  
Mark Peters  
703-794-6194

#### ENGINEER:

McKim & Creed  
412-385-4132

#### CONTRACTOR:

Garney Companies, Inc.

#### COMPLETION DATE:

5/22/2020

#### GEOLOGY:

Limestone, Alluvium

#### EXCAVATION METHOD:

Herrenknecht AVN-1200 MTBM

#### MINING DIMENSIONS:

320' x 60" Ø

#### FINAL LINING:

24" HDPE

#### FOR MORE INFORMATION:

Jordan Bradshaw  
410-970-8300  
jordan.bradshaw@bradshawcc.com  
Refer to Project 600