Office of Active and Abandoned Mine Operations

CRESSON ACID MINE DRAINAGE TREATMENT PLANT
Acid Mine Drainage Abatement Project
Contract No. AMD 11(2724)102.1 DGS 193-39

Bureau of Abandoned Mine Reclamation
286 Industrial Park Road
Ebensburg, PA 15931-4119
FACT SHEET

Location: The site of the Cresson Acid Mine Drainage Treatment Plant is located along Cresson Shaft Road in Cresson Township, Cambria County. Starting in Ebensburg, PA, travel east on US Route 22 to State Route (SR) 53 exit to Cresson, PA. Travel 0.3 miles on SR 53 to Cresson. Cross Admiral Peary Highway and travel four blocks. Turn left onto Keystone Avenue for two blocks. Turn right at the stop sign onto Front Street. Travel one-tenth of a mile, pass under the railroad bridge and turn right on Webster Street (Webster Street becomes Cresson Shaft Road after leaving Sankertown Borough). Travel approximately six-tenths of a mile. The plant site is located on your left at a reclaimed refuse site. The entire footprint of the project from the conveyance pipelines, extraction wells and the Vampire Road Waterline extends into the Borough of Sankertown, Cresson and Gallitzin Townships, Cambria County; and Allegheny Township, Blair County.

Watershed: Headwaters of Clearfield Creek (CWF) and Sugar Run, Franklin Branch of Juniata River (CWF)

Official Start Date: July 10, 2017

Contract Completion Date: January 14, 2022

Contractor: HRI, Inc.

Property Owners: Jeremy P. and Susan M. Plummer
Edward J. and Amy Shuagis
Sankertown Borough
Bill and Kimberly Wilkinson
Phillip and Joan Fitzsimmons
Pristine Resources, Inc.
United States Government, National Park Service
Penelec/First Energy
RJ Corman Railroad
Pennsylvania State Game Commission
Paul Miller
Bill and Kimberly Wilkinson
David H. and Karen M. Fulton
Robert W. and Janice K. Smeltzer
Mainline Medical Associates, Attn: Dr. Larry Stem
Patrick K. and Stephanie A. Lenz
Kevin J. Slippy
William A. and Sylvia M. Sprangler
Gerald and Mary Ann Davis
Devonna Sue Morr and Shelly Ann Kirkpatrick
Gregory J. Degol
Andrew J. and Patricia A. Choros
Thomas V. and Brenda L. Orr
Robert A. and Lori A. Shaw
Timothy A. and Kathleen M. Rhodes
Martin R. and Brenda Sekerak
Patrick J. and Patricia L. Frank
James K. Jones and Joann Harris
David L. and Kathy J. Kleman
Donald E. and Darlene L. Tokarchic
Craig F. and Stephani R. Smithbower
Bernard J. and Amy M. Moschgat
Christopher and Julie Nagle
Robert Maloskey
Michael and Nicole L. Clapper

**Project Cost:**

$14,685,220.21 (Final Amount)
$12,671,212.00 (Bid Amount)

**Project Area:**

Approximately 23 acres (including the plant site, four extraction wells, three sludge injection wells, conveyance pipelines, and a 1.5-mile waterline extension along Vampire Road)

**Purpose:**

To pump water from three separate mine pools to eliminate three acid mine drainage (AMD) discharges that currently discharged into Trapp Run, Bradley Run and Sugar Run. The elimination of these discharges is expected to restore approximately 21 miles of stream. The mine water is now conveyed and treated at centralized treatment plant which has the capability to manage the mine pools to provide supplemental flow to the Susquehanna River Basin during low flow conditions. The plant discharges into Trapp Run which flows into Clearfield Creek and then into the West Branch of the Susquehanna River.

**Description:**

The Cresson Acid Mine Drainage Treatment Plant project involved the construction of an AMD treatment plant along Cresson Shaft Road in Cresson Township, Cambria County. Extraction wells were drilled to pump water from the Cresson No. 9, Gallitzin Shaft, and Argyle Stone Bridge mine pools. The Argyle Stone Bridge extraction well pumps water from the Lower Kittanning (B) Seam and discharges it through an injection well into the Tunnel Coaling Mine Upper Freeport (E) Seam. This water flows by gravity into the Gallitzin Shaft mine pool. Two extraction wells were installed to pump from the Gallitzin Shaft mine pool and convey the water to the treatment plant through a 4,300-foot pipeline. An extraction well was installed into the Cresson No. 9 Upper Freeport (E) Seam workings to pump water from this mine pool and convey it to the plant through a 3,600-foot pipeline. The treatment plant consists of a decarbonation unit, a 66-foot diameter solids contact clarifier and a polishing wetland. The plant is capable of treating 4,400 gallons per minute (gpm) or roughly 6.3 million gallons per day. It is
anticipated that the treatment plant will average 2,200 gpm. Treatment consists of using hydrogen peroxide to oxidize the metals and hydrated lime to adjust the pH. Polymer is added to promote the flocculation of solids. Alkaline sludge is disposed of in one of three injections wells. A 1.5-mile municipal waterline extension was constructed for properties along Vampire Road where lowering the mine pool may likely impact their private water well supply. Residential water supply wells were installed for two residences along State Route 53 where the lowering of mine pools may likely impact their current water supply wells.

**Funding:**
$10,000,000 of Capital Budget, $2,000,000 of 2016 AML Economic and Revitalization, and $2,685,220.21 of Set-Aside Program funding. ($23,576.00 Bond Forfeiture)

**Project Management:**
Bureau of Abandoned Mine Reclamation
Cambria District Office
Contact Craig Treese at 814.472.1800

**Accomplishments:**

<table>
<thead>
<tr>
<th>PRIORITY</th>
<th>AMLF #</th>
<th>AMLF KEYWORD</th>
<th>MEASUREMENTS</th>
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<tbody>
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</tbody>
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AMLF = Abandoned Mine Lane Feature
WA = Water Area
GPM = Gallons Per Minute
CRESSON ACID MINE DRAINAGE TREATMENT PLANT
CONTRACT NO. AMD 11(2724)102.1 DGS 193-39

Location Map

Cresson Acid Mine Drainage Treatment Plant
AMD 11(2724)102.1 DGS 193-39
Sankertown Borough and Cresson and Gallitzin Townships
Cambria County
CREASEN ACID MINE DRAINAGE TREATMENT PLANT
AMD 11(2724)102.1 – DGS 193-39
Location of plant facilities and discharges to be abated.
Pre-Construction

Cresson No. 9 discharge located off of Plank Road in Cresson Township, Cambria County.

Gallitzin Shaft discharge located off of Route 53 in Gallitzin Township, Cambria County.
Pre-Construction

Argyle/Stone Bridge discharge into the headwaters of Sugar Run located off of State Route 4002 in Allegheny Township, Blair County.

Future site of Cresson AMD Treatment Plant off Cresson Shaft Road in Cresson Township, Cambria County.
<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/21/17</td>
<td>Project site from Shaft Road prior to construction.</td>
</tr>
<tr>
<td>10/1/17</td>
<td>Gallitzin Shaft mine water pipeline right-of-way through residential lawn areas prior to construction.</td>
</tr>
<tr>
<td>9/28/17</td>
<td>Project site after clearing and grubbing and coal refuse removal prior to plant construction.</td>
</tr>
<tr>
<td>2/12/18</td>
<td>Gallitzin Shaft mine water pipeline right-of-way to the extraction well site (utilizing existing overhead power line ROW) prior to construction.</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
</tr>
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<tr>
<td>5/2/18</td>
<td>Installing the 12-inch HDPE mine water pipe, the 2-inch communication line and the 1 ½-inch sanitary sewer line from the Gallitzin Shaft well site into the treatment plant site.</td>
</tr>
<tr>
<td>5/7/18</td>
<td>Placing steel and concrete forming constructing the clarifier tank floor.</td>
</tr>
<tr>
<td>5/24/18</td>
<td>Placing steel and concrete forms constructing the 18-foot high clarifier tank walls.</td>
</tr>
<tr>
<td>9/11/17</td>
<td>Installing 8-inch PVC watermain extension along Vampire Road.</td>
</tr>
</tbody>
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Post-Construction

9/7/17 – Installation of the 7,150 LF of 8-inch PVC watermain extension along Vampire Road completed. Note: Fire hydrant bagged, line not yet in service.

6/20/18 – Lime silo installed at the treatment plant site.

5/22/19 – Completed treatment plant site.

5/22/19 – Appx. 1-acre polishing pond at the treatment plant.