

**AMD Treatment System Form for Datashed  
 AML/AMD Remediation Projects**

Project Name: Ferris System (Slippery Rock Passive Treatment Rehab & Maintenance) AMLIS #: PA 7130

Latitude: 41.1022222 Longitude: -79.858611 Determined by GPS? Y  N

Watershed Name: Slippery Rock Creek Receiving Stream: Slippery Rock Creek

USGS Quadrangle: Hilliards, PA County: Butler

Township/City: Venango Township

Contact Person/Organization:							
<b>Name:</b>				<b>Address:</b>			
Cliff Denholm/Stream Restoration Incorporated				PO Box 837			
<b>Telephone Number + Area Code:</b>				Slippery Rock, PA 16057			
(724)-279-5080							
<b>Email Address:</b>							
sri@streamrestorationinc.org							
Organization responsible for operation/maintenance of project if different than above:							
<b>Name: Same</b>				<b>Address:</b>			
<b>Telephone Number + Area Code:</b>							
<b>Email Address:</b>							
Source of AMD:							
Underground	<input checked="" type="checkbox"/>	Surface	<input type="checkbox"/>	Refuse	<input type="checkbox"/>	Oil-Gas well	<input type="checkbox"/>
Treatment System Information:							
<b>Year Re-Constructed:</b>	2021			<b>Total Capital Cost:</b>	\$ 345,216		
<b>Was this a Rehabilitation Project?</b>	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<b>Date of Original System:</b>	1997	<b>Costs Of Rehabilitation:</b>	\$440,797.74	
<b>Describe Rehabilitation Activities:</b> See as-built plan, final report and Datashed for additional detail. Two vertical flow ponds on the SR85/86 side were reconfigured as Jennings-style vertical flow ponds to operate in parallel. A terraced iron formation (TIF) and flow splitter box were installed to treat and split water before entering the Jennings-style vertical flow ponds. VFPs on the JP system were worked on to clean the limestone only VFP (JP2) and to have water bypass the first VFP (JP1).							

If this project includes land reclamation as more than 50% of the total cost, what is the estimated cost of the land reclamation? \$ \_\_\_\_\_

Primary Funding Partners and Funding Provided				
Source		Amount		
Title IV, Appalachian Clean Streams				
PADEP Growing Greener		\$375,191.95		
PADEP Other				
PADCNR				
AMD Set Aside Funds				
EPA Section 319				
OSM Watershed Cooperative Assistance Program				
NRCS				
EPA Watershed Protection				
USCOE				
University				
Bond Forfeiture				
Reclamation in Lieu of Penalty				
Consent Order				
Foundation for PA Watersheds		\$7,500		
Private/Foundation				
In-kind Contributions		\$58,107		
Other Funding Partner (Please note)				
Treatment Technology: Select all that apply at the site.				
Treatment System	# of Treatment Cells	Contain Siphon Automatic Flushing		Comments
		Y	N	
<b>Typical methods</b>		<input type="checkbox"/>	<input type="checkbox"/>	
Aerobic Wetland	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Constructed 1997
Anaerobic Wetland		<input type="checkbox"/>	<input type="checkbox"/>	
ALD		<input type="checkbox"/>	<input type="checkbox"/>	
Limestone Sand Dosing		<input type="checkbox"/>	<input type="checkbox"/>	
Diversion Well/Mechanical Limestone Addition		<input type="checkbox"/>	<input type="checkbox"/>	
Oxic Limestone Drain (OLD)		<input type="checkbox"/>	<input type="checkbox"/>	
Oxic Limestone Channel (OLC)		<input type="checkbox"/>	<input type="checkbox"/>	
Low pH Fe Oxidation Channel	1	<input type="checkbox"/>	<input type="checkbox"/>	
Limestone Pond ( <i>Specify UP, DF or HF under comments</i> )	1	<input type="checkbox"/>	<input type="checkbox"/>	DF – Constructed 1997, stone washed in 2021
SAP ( <i>Specify UP, DF or HF under comments</i> )	1	<input type="checkbox"/>	<input type="checkbox"/>	DF Constructed 1997. Not functioning – serving as a forebay
Bio-Reactor ( <i>Specify UP, DF or HF under comments</i> )		<input type="checkbox"/>	<input type="checkbox"/>	
VFP ( <i>Specify UP, DF or HF under comments</i> )	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Two of the VFPs were rehabilitated to Jennings-style VFPs (labelled VK1 and VK2).
Manganese Removal Bed		<input type="checkbox"/>	<input type="checkbox"/>	
Pyrolusite Bed		<input type="checkbox"/>	<input type="checkbox"/>	
Settling/oxidation Pond		<input type="checkbox"/>	<input type="checkbox"/>	

UF = Upflow

DF = Downflow (like in a traditional SAP)

HF = Horizontal Flow

Other Methods	Comments
Well Plugging	
Steel Slag	
Land Reclamation to cover toxic material or prevent water infiltration.	
In-Situ Treatment <i>(Include type under comments)</i>	
Chemical Addition Treatment Plant <i>(Include Chemical used under comments)</i>	
Lime Doser <i>(Include Chemical used under comments)</i>	
Mechanical Aeration <i>(Include type under comments)</i>	
Others <i>(discuss in comments)</i>	

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Project Designer:			
BioMost, Inc.			
Organization:			Telephone Number + Area Code:
See above.			724-776-0161
Water Information:			
	Inflow (average of sample points TIF, SR88, SR87)	Outflow	Load Reductions (lbs/day)
Flow (gpm)	See Dashed	See Dashed	See Dashed
pH			
Total Iron (mg/L)			
Ferrous Iron (mg/L)			
Hot Acidity (mg/L)			
Alkalinity (mg/L)			
Total Aluminum (mg/L)			
Total Manganese (mg/L)			
Date of Collection			

If more detailed water quantity and quality data is available, please provide the following:	
Contact:	Uploaded to datashed.org
Telephone:	
Email:	

<b>If receiving stream or macroinvertebrate information is available please provide the following:</b>		
<b>Contact:</b>		
<b>Telephone:</b>		
<b>Email:</b>		
<b>Comments:</b> <i>(specific to O&amp;M; performance; impact on receiving stream. Include date of inspection and name and telephone number of person making comment)</i>		
<b>Date</b>	<b>Name</b>	<b>Telephone Number + Area Code</b>
<b>Comment:</b> <u>As-Builts and OM&amp;R Plan posted on <a href="http://www.datashed.org">www.datashed.org</a></u>		

<b>Any links specific to this watershed that should be included?</b>	
<b>Web Address</b>	Datashed.org and srwc.org

Send to your DEP Project Advisor with your Final Report Paperwork: One digital copy of the AMD Treatment System Form for Datashed, the Operational, Maintenance and Repair/Replacement (O, M & R) Plan that includes the “as-built” drawings and site schematics in PDF, and any water quality information in EXCEL format.