



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

Project Name: Richards Passive System Rehabilitation AMLIS #: \_\_\_\_\_

Latitude: 40.66306 Longitude: -78.98111 Determined by GPS? Y  N

Watershed Name: Blacklick Creek Receiving Stream: Two Lick Creek

USGS Quadrangle: Commodore, PA County: Indiana

Township/City: Cherryhill Township

Contact Person/Organization:							
<b>Name:</b>				<b>Address:</b>			
Blacklick Creek Watershed Association/Janis Long				297 Sarah Street			
<b>Telephone Number + Area Code:</b>				Homer City, PA 15748-6904			
724-349-9474							
<b>Email Address:</b>							
janis.long@gmail.com							
Organization responsible for operation/maintenance of project if different than above:							
<b>Name:</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 Constructed:</b> 2021				<b>Total Capital Cost:</b> \$ 939,524			
<b>Was this a Rehabilitation Project?</b>		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<b>Date of Original System:</b> 1999		<b>Costs Of Rehabilitation:</b> \$ 646,024	
<b>Describe Rehabilitation Activities:</b> See as-built plan and final report for additional detail. Three existing vertical flow reactors and a sludge holding basin were reconfigured to three Jennings-type vertical flow ponds. The settling pond and wetland were reconfigured and the mine drainage collection and distribution system was improved.							

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	\$528,024
PADEP Other	
PADCNR	
AMD Set Aside Funds	
EPA Section 319	
OSM Watershed Cooperative Assistance Program	\$100,000
NRCS	
EPA Watershed Protection	
USCOE	
University	
Bond Forfeiture	
Reclamation in Lieu of Penalty	
Consent Order	
Foundation for PA Watersheds	\$18,000
Private/Foundation	
In-kind Contributions	\$143,871
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	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	46,600 SF wetland after JVFP2 & JVFP3 (includes an artestion flowing corehole that discharges to the final 1/3 of wetland)
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		<input type="checkbox"/>	<input type="checkbox"/>	
Limestone Pond (Specify UP, DF or HF under comments)		<input type="checkbox"/>	<input type="checkbox"/>	
SAP (Specify UP, DF or HF under comments)		<input type="checkbox"/>	<input type="checkbox"/>	
Bio-Reactor (Specify UP, DF or HF under comments)		<input type="checkbox"/>	<input type="checkbox"/>	
VFP (Specify UP, DF or HF under comments)	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Two 1,500-ton (JVFP1 & JVFP3) and one 2,300-ton (JVFP3) Jennings-type Vertical Flow Ponds
Manganese Removal Bed		<input type="checkbox"/>	<input type="checkbox"/>	
Pyrolusite Bed		<input type="checkbox"/>	<input type="checkbox"/>	
Settling/oxidation Pond	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Settling pond after JVFP1

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	Outflow	Load Reductions (lbs/day)
Flow (gpm)	(see datashed)		
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>	See Datashed.

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.