

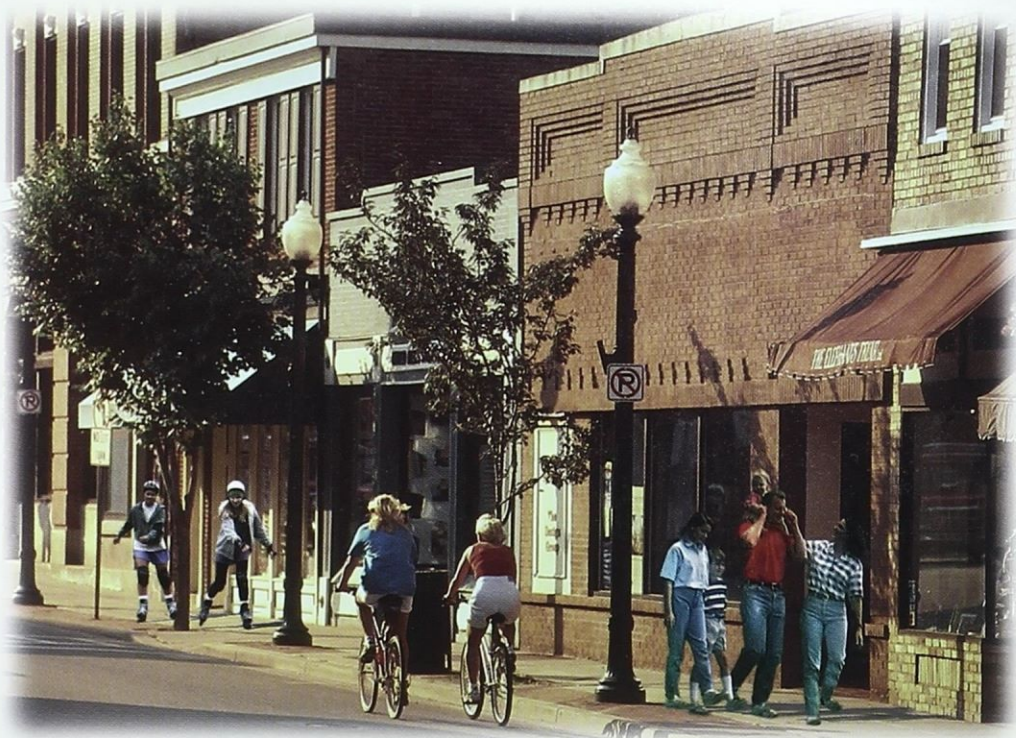
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Green Lands

Spring 1999

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To many people, coal is just something you dig out of the ground. But for this West Virginia town – and countless others just like it – coal is the bedrock of life.

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Look around the next time you're in town. See for yourself how much this community, as well as the one you live in, is counting on coal.



Green Lands

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Green Lands

is a quarterly publication of the
West Virginia Mining & Reclamation Association,
with offices at 1624 Kanawha Boulevard East
Charleston, West Virginia 25311
(304) 346-5318, FAX 346-5310
E-Mail: wvmra@newwave.net



On the Cover

A scenic view of No. 1 pond in the Left Fork of White Oak Creek at Catenary Coal Company in Kanawha County. Catenary was awarded the Callaghan Award at the 26th Annual West Virginia Mining Symposium in January. See story on page 18.

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West Virginia Mining & Reclamation Association

The West Virginia Mining & Reclamation Association ... Who We Are

With nearly 300 members, the West Virginia Mining & Reclamation Association is the largest state coal association in the nation. WVMRA was formed in 1966 from two regional organizations, the Southern West Virginia Mining Institute, and the North Central West Virginia Surface Mining Association.

WVMRA was founded for the immediate purpose of saving the surface coal industry from legislative extinction. Association companies helped bring about workable revisions to State mining law and just as importantly, conveyed to the public the message that mining productivity is compatible with environmental protection. At the same time, the union of responsible coal companies with widespread and diversified supplier industries served to emphasize the economic importance of the industry to the state.

Through its history, WVMRA and its members have set a national standard for technical expertise and innovation. The Association started the first reclamation awards program, to recognize extraordinary results in land renovation. Member companies perfected the revolutionary surface mining methods of haulback and mountaintop mining.

More than a quarter century ago, the Association established an annual technical symposium as a means of sharing technology. It was the only coal organization to support national reclamation legislation in 1977. It co-founded and continues to support a task force to combat acid mine drainage. It established a safety awards program to recognize mining operations for fatality free production.

All of these programs continue today, supplemented by specialized seminars and technical sessions, a quarterly magazine, a monthly newspaper, an annual membership services directory, a members-only newsletter and other special publications.

The Association also serves as the liaison for the industry with all three branches of government, including the great number of state and federal executive agencies charged with regulating the industry.

WVMRA's corps of dedicated and efficient coal producers is supplemented by a large and active associate membership, comprised of the myriad of companies from blasters to bankers, that depend on the coal industry for their livelihood.

For more information on "Coal's First Team," contact:

WVMRA
1624 Kanawha Boulevard East
Charleston, WV 25311
(304) 346-5318
FAX 346-5310
wvmra@newwave.net

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Rish Equipment Honored For Performance Excellence

For the first time, heavy equipment distributor, Rish Equipment Company, received Komatsu America International Company's highest honor, the Chairman Award, during its 1998 Excellence Program on January 15 in San Diego.

Rish also received the 1998 Merit Awards for: Outstanding Performance In Retail Finance Volume, Most Improved Market Share and Highest Sales Volume - Komatsu Mining Systems.

"For the most part, the discipline that the Excellence Awards focus on are the same areas in which we are trying to excel," said Dan Pochick, president of Rish. "I believe we get better every year. We must. Our competition is."

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Coal Calendar

April

- 7-8** **EXPO 99, Charleston Civic Center, Charleston, WV.** Contact Pat Parsons, (304) 342-3976.
- 8-10** **Coal Ops 99, Knoxville, TN.** Contact George Roman (510) 864-2875.
- 13-14** **West Virginia Surface Mine Drainage Task Force Symposium,** Ramada Inn, Morgantown, WV. Contact Patty Bruce, (304) 346-5318.
- 15** **Joint Meeting of Kanawha Valley and Tug Valley Mining Institutes,** Guest speaker, Bill Raney, president WV Coal Association. Contact Dave Akers (304) 426-4422. Meeting Site TBA.
- 15-17** **SME/CAS Annual Spring Meeting,** Marriott Griffin Gate Resort, Lexington, KY. Contact Kim King (606) 257-4634.
- 16** **Contractors Association of West Virginia State Dinner Meeting,** Embassy Suites, Charleston, WV.
- 17-18** **Tamarack's 3rd Annual Coal Heritage Festival,** Tamarack, Beckley, WV.
- 20-21** **Surface Subsidence Caused By Underground Mining,** University of Kentucky Mining & Mineral Resources Building, Lexington, KY. Contact Geaunita Caylor (606) 257-2820.
- 21** **North American Coalbed Methane Forum,** Holiday Inn Meadow Lands, Washington, PA. Contact Kashy Aminan (304) 293-7682.
- 21-23** **Kentucky Mine Safety '99,** Landmark Inn's Mark II, Pikeville, KY.
- 27-29** **Coal Prep '99,** Lexington Convention Center, Lexington, KY. Contact Sam Posa, (303) 770-0253.

May

- 2-5** **6th Annual Kentucky GIS Conference,** Drawbridge Estates, Ft. Mitchell, KY.
- 3-7** **International Coalbed Symposium,** Bryant Conference Center, University Alabama, Tuscaloosa, AL. Contact Gwen Hood, (205) 348-7192.

Calendar 1999

- 6 Kanawha Valley Mining Institute Meeting**, Heart-of-Town Hotel, Charleston, WV.
- 6-8 Joint meeting of the WV Coal Association and WV Coal Mining Institute**, Charleston Marriott, Charleston, WV. Contact Royce Watts, (304) 293-5695.
- 11-13 37th Annual Kentucky Coal Utilization Conference**, University of Kentucky Wyndham Garden, Carnahan Center, Lexington, KY. Contact Kim King, (606) 257-4634.
- 20 Tug Valley Mining Institute Meeting**, Brass Tree Restaurant, Williamson, WV. Guest speaker, Mike Miano. Contact Dave Akers, (304) 426-4422.
- 20-22 National Mining Association Annual Meeting**, The Greenbrier, White Sulfur Springs, WV. Call (202) 463-2625.

June

- 1-2 West Virginia Self-Insurers Association Annual Conference**, Charleston Marriott Town Center, Charleston, WV. Call (304) 340-3862.
- 3-4 Coal Lab Technical Training**, UK Mining & Mineral Resources Building, Lexington, KY. Contact Geaunita Caylor, (606) 257-2820.
- 8-10 International Surface Blasting Conference - Mineblast '99**, Duluth, MN.
- 12-13 4th Annual West Virginia Timber and Wood Products Show**, Barbour County Fairgrounds, Belington, WV. Contact Dick Waybright, (304) 372-1955.
- 24 Tug Valley Mining Institute Meeting**, Contact Dave Akers (304) 426-4422. Meeting Site TBA.
- 24-25 Ohio Mining & Reclamation Association Annual Meeting**, Holiday Inn East, Columbus Ohio.

15 States Represented at the 26th Annual West Virginia Mining Symposium

More than 600 people from 15 states, some from as far away as Texas, Illinois and even Utah, braved the winter elements to be a part of the 26th Annual West Virginia Mining Symposium, on January 13-15 in Charleston, WV.

Sponsored by the West Virginia Mining and Reclamation Association, this year's workshop, "Keys to a Successful Blasting Program," had standing room only and was considered to have the highest attendance ever for the first day of any mining symposium.

Topics of the workshop included preblasting surveys, monitoring equipment and community relations.

On Thursday, the Mountaineer Guardian awards luncheon was well attended with 27 companies being recognized for excellence in safety.

The Cowen Complex of Evergreen Mining Co., Webster County, captured the top safety recognition by being presented the Barton B. Lay, Jr. Milestones of Safety award for 1998.

Evergreen, noted for its outstanding safety program, was also recognized for 662 consecutive days without a lost time accident.

To be eligible for the Mountaineer Guardian award, a mine or preparation plant must have experienced no fatalities during the year and must be nominated by its local Miners' Health, Safety & Training inspector. Winners were selected on the basis of their overall safety programs.

A complete listing of the Mountaineer Guardian award winners begin on page 12.

In 1998, the West Virginia coal industry experienced a record low



Blasting was the main subject for the workshop at this year's mining symposium held in Charleston, WV in January. Topics included preblasting surveys, monitoring equipment and community relations.

six fatalities, eclipsing the record of seven set just one year ago.

"For the second straight year, the industry's safety record indicates the very real possibility of achieving our ultimate goal of zero fatalities," said Ron Harris, MSH&T director.

On Thursday evening, the WVMRA-sponsored legislative reception was the place to be. About 500 members and friends attended the reception with a good showing from state legislators and staff stopping to discuss issues and interests concerning the coal industry.

On Friday, 12 companies were recipients during the reclamation awards luncheon which included two new categories.

The reclamation awards are presented annually to companies that are judged to have outstanding achievements in mine development and construction, land reclamation, water quality enhancement and community involvement.

To be considered for this award, a company must be nominated by its local Division of Environmental Protection inspector.

The top honor, the David C. Callaghan award, was presented to Catenary Coal Company, Kanawha County, for achievements that included the elimination of more than 25 miles of abandoned highwall and reclaiming three abandoned



After a presentation by the DEP staff during the Mining Symposium, Ken Politan (second from right), of the DEP answers questions from (l-r) Monte Hieb and Bob Marsh, both of Pen Coal and Mark Heath, Heenan, Althen & Roles.

refuse piles that encompassed more than 150 acres.

Although these projects were eligible for Abandoned Mine Lands funds, Catenary's reclamation efforts saved the fund \$30 million.

"The operations at Catenary Coal Company continue to demonstrate the highest standards and long traditions we have come to expect from the West Virginia coal industry," said Ben Greene, president of the WVMRA.

The David C. Callaghan award is named for the former director of the West Virginia Department of Natural Resources and later, of the

West Virginia Division of Environmental Protection.

This year, the AML award was named in the honor of James E. "Pete" Pitsenbarger, who retired from the DEP in August 1998.

Pitsenbarger worked 30 years in various capacities and served more than 10 years as Chief of the Abandoned Mine Lands and Reclamation Office for the Division of Environmental Protection. He is best known for his dedication and passion for protecting and enhancing West Virginia's natural resources.

(See Symposium on page 10)

Symposium from page 7

The recipients of the James E. "Pete" Pitsenbarger AML award were: Eastern Arrow, Inc., Preston County (for northern West Virginia) and B.F. Foster Company, Inc., Clay County (for southern West Virginia).

For the first time ever, the newly created West Virginia Woodlands award was presented by the Society of American Foresters. This award recognizes a company that has demonstrated a commitment to the planning, growing and management of premium commercial woodlands on mining sites.

The first Woodlands award went to White Flame Energy, Inc., Mingo County.

Eight other companies were also recognized for their leadership in reclamation work during Friday's awards luncheon ceremony.

The complete listing of the 1998 reclamation winners begin on page 18.

A special thanks goes out to the companies having hospitality rooms as well as advertising in the Symposium program, exhibitors, presenters, and to Heenan, Althen & Roles for hosting the breakfast on Thursday.

These companies and individuals greatly contributed in making the 26th Annual West Virginia Mining Symposium an overwhelming success.



Wayne Stanley, WVMRA chairman (right), presents James E. "Pete" Pitsenbarger with a plaque during the 26th Annual West Virginia Mining Symposium in Charleston, WV on January 15th. Pitsenbarger, was honored by having the Abandoned Mine Lands award named after him.

Pete Pitsenbarger Honored At 26th Mining Symposium

James E. "Pete" Pitsenbarger is a person who will always be fondly remembered as someone who was dedicated to protecting and enhancing West Virginia's natural resources.

"I would much rather see a disturbance knowing that it will one day be green, rather than asphalt and buildings," he said.

Pitsenbarger, who retired from the West Virginia Division of Environmental Protection in August 1998, worked 30 years in various capacities and served more than 10 years as Chief of the Abandoned Mine Lands and Reclamation Office.

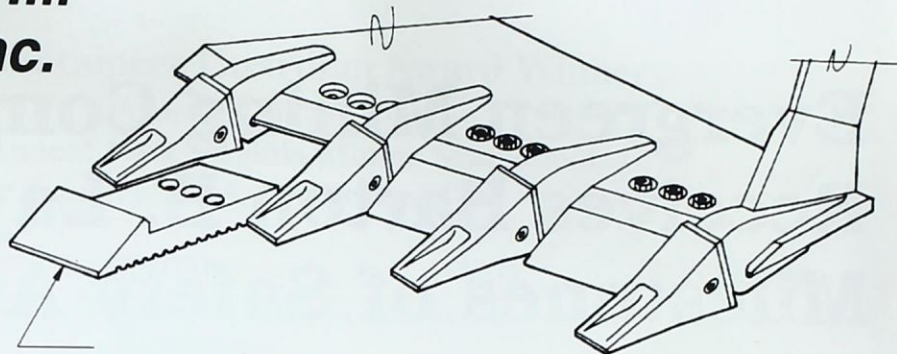
As a result of this distinction, Pitsenbarger was honored by having the annual Abandoned Mine Lands award expanded to the James E. "Pete" Pitsenbarger AML award during the awards luncheon at the 26th Annual West Virginia Mining Symposium on January 15th in Charleston, WV.

"This is the greatest honor I have ever received," he said.

The recipients of the 1998 James E. "Pete" Pitsenbarger AML Award were: Eastern Arrow, Inc., Preston County (for northern West Virginia) and B.F. Foster Company, Inc., Clay County (for southern West Virginia).

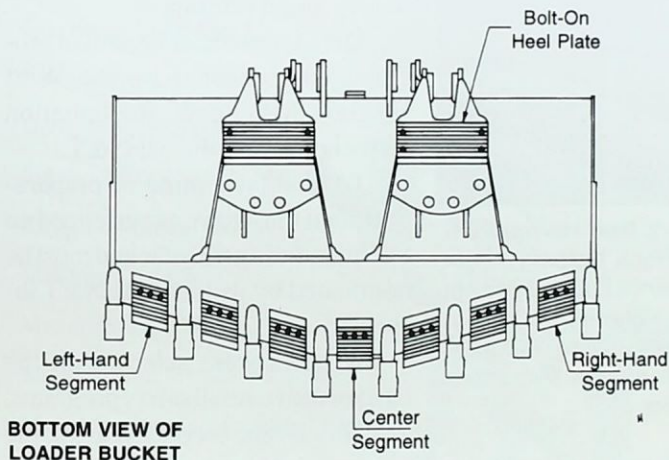
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Evergreen Mining Company Receives Barton B. Lay, Jr. Milestones of Safety Award



Evergreen Mining Company, Cowen Complex, was the winner of the 1998 Barton B. Lay, Jr. Milestones of Safety award during the 26th Annual West Virginia Mining Symposium awards luncheon in Charleston, WV on January 14th.

The Cowen Complex of Evergreen Mining Co. in Webster County was the recipient of this year's Barton B. Lay, Jr. Milestones of Safety award during the 26th Annual West Virginia Mining Symposium awards luncheon in Charleston, WV on January 14th.

About 600 representatives from coal operations, state and federal agencies, consulting firms as well as other business that are associated with the coal industry,

Pictured are (l-r): Ron Harris, Miners' Health, Safety & Training Director; Bob Applegarth; Eugene Brown; Craig Aaron; Wayne Stanley, WVMRA Chairman; Dave Matusik; Randy Smith; and John Meadows, MHS&T inspector.

attended the three-day event on January 13-15.

Evergreen was one of 27 West Virginia coal operations honored during the luncheon for having the most outstanding safety programs in the state for 1998.

Evergreen received tops honors for its overall safety record, which included 662 consecutive days without a lost time accident at any of its three allied facilities, a 0.76 accident rate and a 0.1 violation rate.

"Over a period of several years, the employees at these operations have exemplified the type of safety program that results in a safe and productive working environment for the mining industry," said Ron Harris, director of the West Virginia Office of Miners' Health, Safety and Training.

The Mountaineer Guardian program, co-sponsored by the West Virginia Mining & Reclamation Association and the MHS&T.

To qualify, a mine or preparation plant must have experienced no fatalities during the year and must be nominated by its local MHS&T inspector.


Winners were selected on the basis of their overall safety programs.

This is the second year of the revamped Mountaineer Guardian program, according to WVMRA Vice President Dan Miller.

"By last year, the safety program established by the state and carried out by coal companies had progressed to the point where it was time to significantly raise the standard for this award. Many companies were deserving and the ones selected represent a cross section of all aspects of the industry," Miller said.

1998 Mountaineer Guardian Award Winners

Presented During the
26th Annual West Virginia Mining Symposium,
January 13-15, Charleston, WV



<u>COMPANY</u>	<u>FACILITY</u>	<u>COUNTY</u>	<u>INSPECTOR</u>
Anker WV Mining Co., Inc.	Philippi Development Prep. Plant	Barbour	Bob True
Burn Coal, Inc.	No. 2 Mine	Upshur	Bill Tankersly
Catenary Coal Co.	Samples Mine	Kanawha/Boone	Terry Keen
C.J. & L. Mining, Inc.	No. 2 Mine	McDowell	Steve Womack
D&L Coal Co., Inc.	Rostosky No. 2 Mine	Mineral	John Lucas
Eastern Assoc. Coal Corp.	Harris No. 1 Mine	Boone	Bill Bently
Eastern Assoc. Coal Corp.	Rock Lick Preparation Plant	Boone	Ernie Pyles
Evergreen Mining Co.	Cowen Complex	Webster	John Meadows
Greenbrier Limestone Co.	Johnson Mine	Greenbrier	Lloyd Collins
Greer Limestone	Greer Quarry	Monongalia	Dave Barlow
Hobet Mining, Inc.	Old Hickory Mine	Boone	Rod Wallace
Independence Coal Co., Inc.	Twilight Chilton R Mine	Boone	Eugene White
Kingston Mining, Inc.	Glen Alum Mine	Fayette	Clark Gillian
McElroy Coal Co.	McElroy Mine	Marshall	Colin Simmons
Mountain Edge Mining	Red Cedar Surface Mine No. 1	Boone	Randall Bailey
Muddy Creek Mt. Stone Co., Inc.	Quarry	Greenbrier	Lloyd Collins
Mystic Energy, Inc. Candice	No. 2 Mine	Boone	Ernie Pyles
Pen Coal Corp./Kiah Creek Div.	Deep Mine No. 3 Mine	Wayne	Richard Boggess
Princess Beverly Coal Co.	Kayford Mine	Kanawha	Terry Keen
Roblee Coal Co.	Jesse's Run No. 2 Mine	Upshur	Bill Tankersly
Simmons Fork Mining, Inc.	Simmons Fork Surface Mine	Wyoming	John Miller
Stanley Industries, Inc.	Upshur No. 2 Mine	Upshur	John Meadows
Terry Eagle Coal Co., LLC	No. 1 Prep Plant	Nicholas	Lloyd Collins
U.S. Steel Mining Co., LLC	No. 50 Mine	Wyoming	William Tucker
Victory Mining Co.	Victory Mine	Mingo	Lee Sipple
White Buck Coal Co.	Grassy Creek Mine	Nicholas	Lloyd Collins
Windsor Coal Co.	Windsor Mine	Brooke	Colin Simmons

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Catenary Coal Company Captures

For the second time in three years, Catenary Coal Company's, Samples operation, has received the top honor for outstanding reclamation work.

Catenary Coal Company, located in Kanawha County, was presented the prestigious David C. Callaghan award during the 26th Annual West Virginia Mining Symposium awards luncheon in Charleston on January 15th.

The company was one of 12 West Virginia coal and contracting companies recognized for excellence in environmental enhancement for 1998.

Among Catenary's list of achievements included eliminating more than 25 miles of abandoned highwall and reclaiming three abandoned refuse piles that encompassed more than 150 acres.

Although cleanup funding for these projects could have been acquired through government funding, Catenary's reclamation work saved the Abandoned Mine Land fund \$30 million.

"The operation at Catenary Coal Company continue to demonstrate the highest standards and long traditions we have come to expect from the West Virginia coal industry," said Ben Greene, president of the West Virginia Mining and Reclamation Association.

The David C. Callaghan award



For the second time in three years, Catenary Coal Company is the recipient of the 1998 Callaghan Award presented during the 26th Annual West Virginia Mining Symposium awards luncheon in Charleston, WV on January 15th.

is named for the former director of the West Virginia Department of Natural Resources and later of the West Virginia Division of Environmental Protection.

Sponsored by the WVMRA in cooperation with the DEP, the reclamation awards are presented annually during the mining symposium to companies that are judged to have outstanding achievements in mine development and construction, land reclamation, water quality enhancement and community involvement.

Pictured are (l-r): Willie Hudson; Wayne Stanley, WVMRA Chairman; Jim Felber; Duane Stowers, DEP Inspector; Peter Lawson; David Callaghan, former DNR and DEP Director; Mike Miano, DEP Director; Eddie Turner; and Conrad Larrabee.

To be considered for this award, a company must be nominated by its local DEP inspector.

"These award winners continue to be a source of pride for the state's industry," Greene said. "In addition to evaluating the nomination, the selection committee visited each of the award winning sites and I can attest that these operations reflect very well on mining and reclamation in West Virginia."

(See Catenary on page 41)

s David C. Callaghan Award - Again



"In Kanawha and Boone Counties, for the voluntary elimination of more than 25 miles of abandoned highwall, remining more than 3 million tons of coal refuse and the total reclamation of two abandoned refuse piles totaling more than 150 acres. All of the completed sites were eligible for AML funding, but in a cooperative effort with the Division of Environmental Protection, more than 30 million dollars of environmental enhancement has been incorporated into the active mining operation with exemplary achievement in all phases of mining and reclamation representing the high standards of the West Virginia coal industry."

WILDLIFE WEST VIRGINIA AWARD

Mingo Logan Coal Company

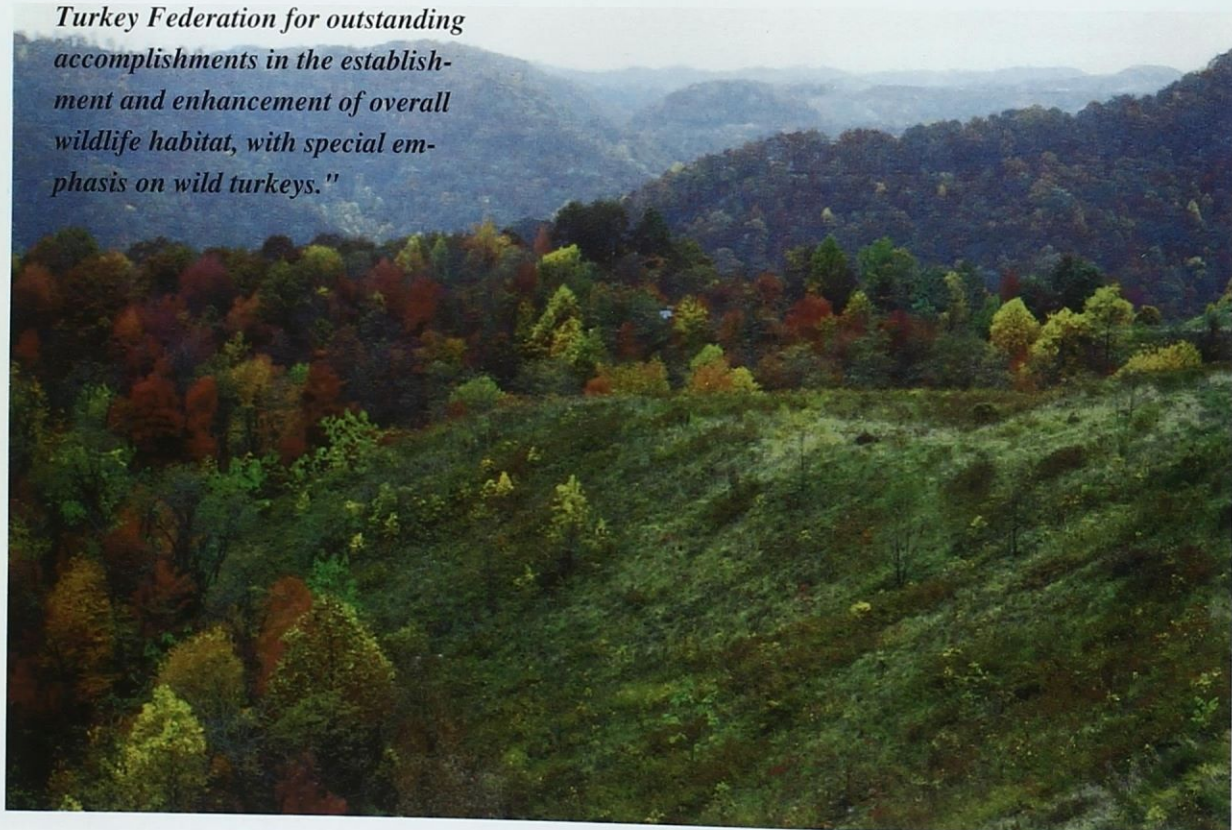
Logan County

Pictured are (l-r): Darrell O'Brien, DEP Inspector; Greg Gibbs, president of the West Virginia Chapter of the National Wild Turkey Federation; Clifton Frye; Gary Bennett; Rick Adams; Clinton Daugherty.



"Presented by the West Virginia Chapter of the National Wild

Turkey Federation for outstanding accomplishments in the establishment and enhancement of overall wildlife habitat, with special emphasis on wild turkeys."



WOODLANDS WEST VIRGINIA AWARD

White Flame Energy, Inc.

Mingo County

Pictured are (l-r): John Flesher, DEP Inspector; Don Nicewonder; Mike Vines; Barbara Breshock, Chair of the West Virginia Division of the Allegheny Society of American Foresters; Kenny Nicewonder; Kevin Nicewonder; and Raymond Maynard.

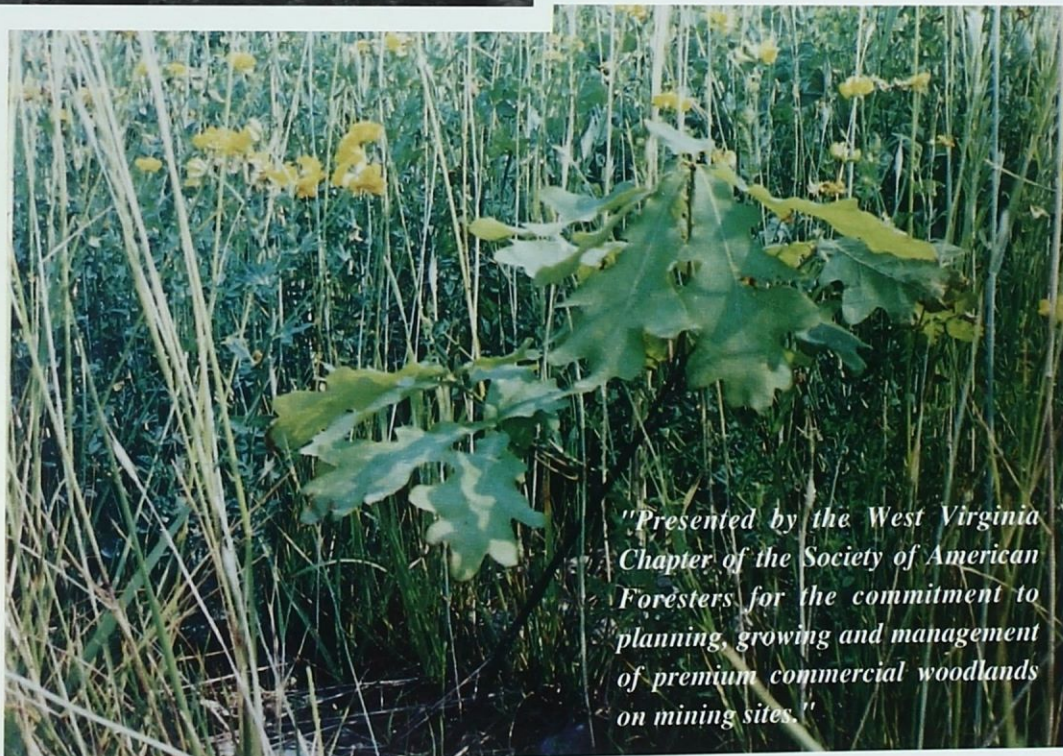


West Virginia Woodlands is an award newly created by the West Virginia Mining and Reclamation Association in conjunction with the Society of American Foresters.

Recipients of this award are being recognized of their commitment to establishing multiple-use forests for the future. The replanting of timberlands on mined sites today, are the productive forests of tomorrow.

To be nominated for the award, a mining operator must have a forest management plan for a post mining land use, which is developed by a professional forester.

The SAF is the national organization representing forestry professionals who are dedicated to improving the health and productivity of forests. It is the largest professional society for foresters in the world. SAF members include nearly 18,000 nationwide and more than 200 in West Virginia.



"Presented by the West Virginia Chapter of the Society of American Foresters for the commitment to planning, growing and management of premium commercial woodlands on mining sites."

JAMES E. "PETE" PITSENBARGER AML AWARD - SOUTH

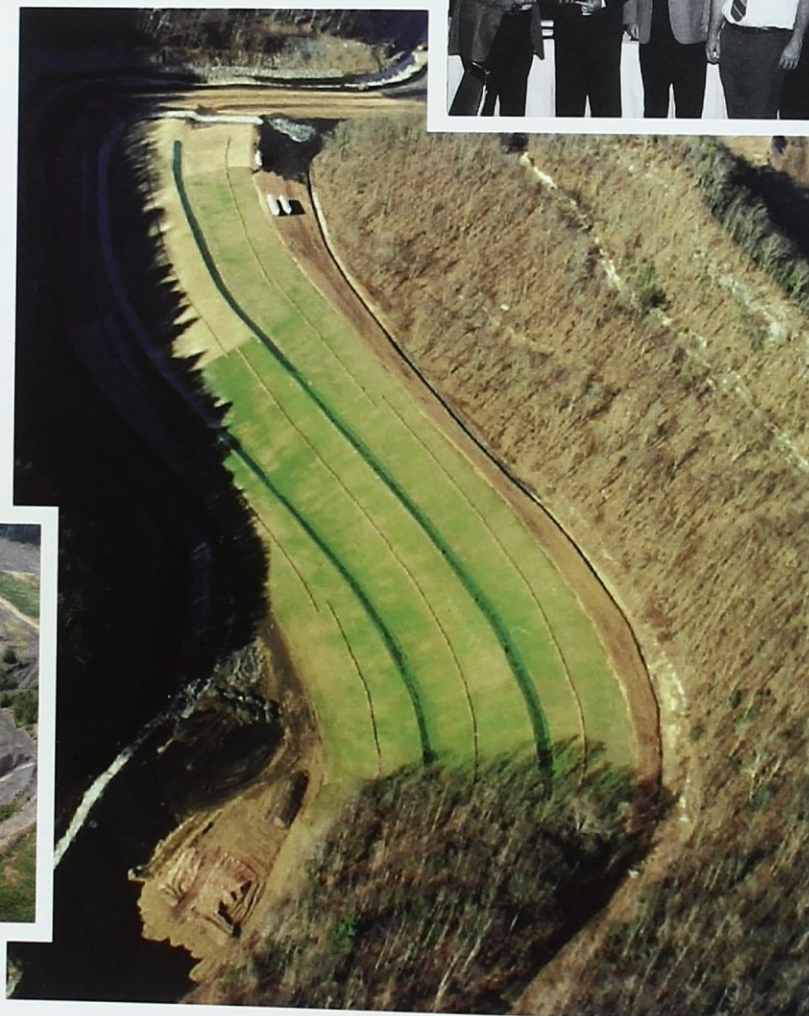
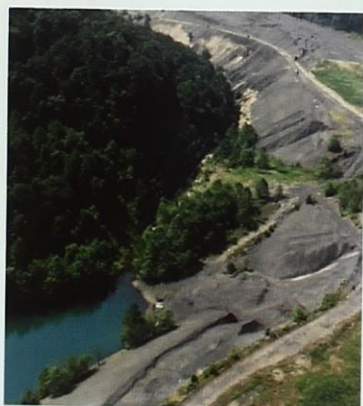
B.F. Foster Company, Inc.

Clay County

The Taylor Creek Impoundment project, costing more than \$4 million, was completed in the spring of 1998. Water quality has already shown major improvement with increased benefits downstream to Buffalo Creek.

Pictured are (l-r): Pete Pitsenbarger; Barry Foster; Wayne Stanley, WVMRA Chairman; Allen Wood, and Claude Straight.

"In Clay County, near Widen, for the elimination of a 20-acre hazardous impoundment formed by nearly vertical refuse, the reconstruction of more than 3,500 feet of Taylor Creek and the overall regrading and stabilization of 2 million cubic yards of excavated refuse, all transforming the total area to a stable and aesthetically pleasing site."



JAMES E. "PETE" PITSENBARGER AML AWARD - NORTH

Eastern Arrow, Inc.

Preston County

The Turner-Douglas Complex is located near the West Virginia/Maryland border. This pleasing 58-acre site contained coal refuse piles, collapsed mine portals, and red dog suspected to have burned around the time of World War II. Reclamation work greatly improved water quality to Laurel Run and the Youghiogheny River.



Pictured are (l-r): Wayne Stanley, WVMRA Chairman; Pete Pitsenbarger; Ann Wardwell; David A. Smith; and Mike Wardwell.

"In Preston County, near Terra Alta, for the removal, regrading and stabilization of a 58-acre refuse site that had impacted Laurel Run for more than 50 years. This outstanding work included the sealing of several portals and a vertical shaft. The area, now stable, blends in and compliments the beautiful countryside."





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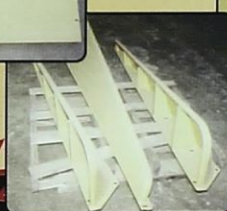
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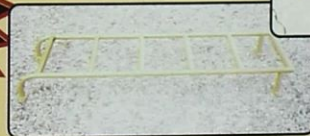


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Anker West Virginia Mining Company, Inc., Spruce Fork Division

Upshur County

"In Upshur County, for the installation of a major underground mining complex in close proximity to Buckhannon-Upshur High School. By utilizing the boxcut method of overburden removal, providing several sediment control structures and upgrading the local county road, mining is being carried out in complete harmony with the surrounding area."



Pictured are (l-r): Joe Altieri, DEP Inspector; Wayne Stanley, WVMRA Chairman; Scott Rotruck; Bruce Sparks; and Mike Miano, DEP Director.



1998 Reclamation Awards

Beth Energy Mines, Inc.

Nicholas County

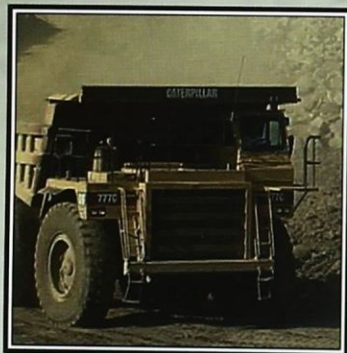
"In Nicholas County, for the thorough and complete reclamation of a major deep mine, coal preparation plant and refuse facility. By close attention to complete drainage control covering all areas with topsoil and providing a dense vegetative cover, the total area blends in with and complements the surrounding topography."



Pictured are (l-r): Wayne Stanley, WVMRA Chairman; Bill Little (accepting for Beth Energy); and Mike Miano, DEP Director.



reclan



(rek'lə mā'shən)

It's a big word with an important meaning to West Virginians. And with reclamation, previously mined sites like the one transformed by Catenary Coal in Kanawha County are now more beautiful than ever.

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Logan

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Jackson, Ohio

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Jackson, OH 45640
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Parkersburg

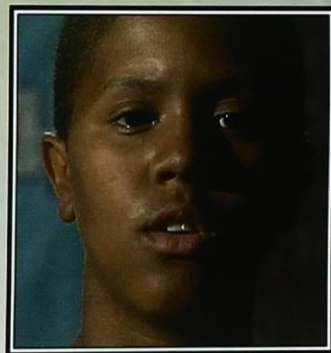
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Beckley

Route 16
Crab Orchard, WV 25827
(304) 253-2706

Summersville

815 Main Street
Summersville, WV 26651
(304) 872-4303

**Walker**

Black Oak Mining, Inc.

McDowell County



"In McDowell County for close attention to detail in mining a multiple seam operation near the town of Gary. A blending terrace with sediment cell drainage control compliments the contemporaneous site. Post mining land use will feature emphasis on managed hardwood forestland."

Pictured are (l-r): Wayne Stanley, WVMRA Chairman; Arnold Fortner, DEP Inspector; Christopher Whitt; and Mike Miano, DEP Director.



Buffalo Coal Company

Tucker County

"In Tucker County, near Blackwater Falls State Park and the Monongahela National Forest, for attention to detail in every phase of the operation, in the elimination of more than 25 acres of abandoned mine area, the cleanup and enhanced water quality of Pendleton Run and the complete transformation of the environmentally sensitive area to golf course quality."

Pictured are (l-r): Wayne Stanley, WVMRA Chairman; Dennis Dolechek; David Idleman, DEP Inspector; Steve Shaffer; Don Cussins and Mike Miano, DEP Director.



Land joins U.S.
Forest Service
property.



Hampden Coal Company, Inc.

Mingo County

Pictured are (l-r): Wayne Stanley, WVMRA Chairman; John Flesher, DEP Inspector; Eddie Grimmett; and Mike Miano, DEP Director.



"In Mingo County, for exemplary reclamation of several underground mining permits with extremely steep slopes located on Horsepen Mountain. By utilizing a valley fill, creating drainage control in concert with the natural drainageways and providing a dense, lush vegetative cover this site has completely restored the original contour, providing an aesthetically pleasing view of the total area."



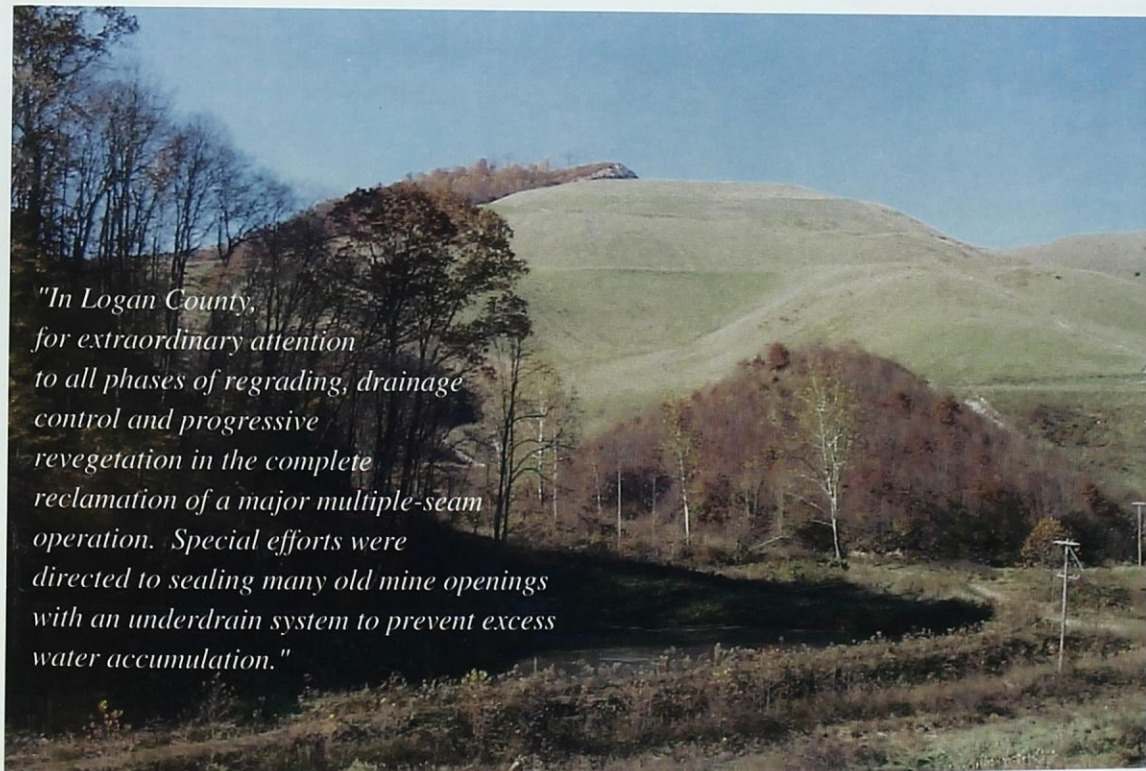
Hobet Mining, Inc., Spruce Valley Division, Dal-Tex Complex

Logan County

Pictured are (l-r): Wayne Stanley, WVMRA Chairman; Ray Horrocks, DEP Inspector; Mark White; Mike Miano, DEP Director; and Kent DesRocher.



"In Logan County, for extraordinary attention to all phases of regrading, drainage control and progressive revegetation in the complete reclamation of a major multiple-seam operation. Special efforts were directed to sealing many old mine openings with an underdrain system to prevent excess water accumulation."



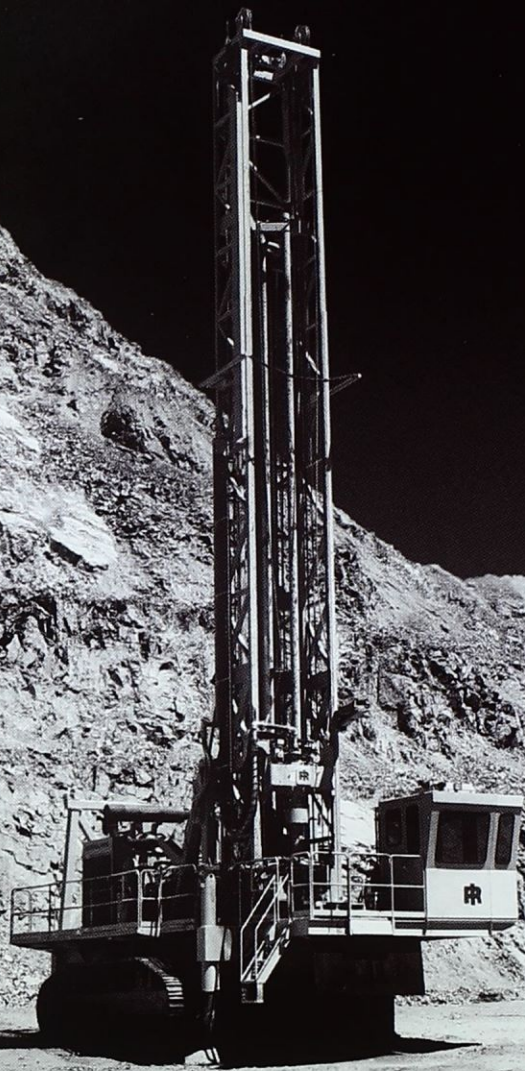
Mepco, Inc.

Monongalia County

"In Monongalia County, for attention to detail in toxic material handling, top-soil storage and the use of fluidized bed coal ash as a soil amendment. This site, near Interstate 79, provides the land-owner with a highly productive meadow of perennial grasses and legumes for future use."

Pictured are (l-r): Wayne Stanley, WVMRA Chairman; Terry Flemming, DEP Inspector; James L. Laurita, Jr.; and Mike Miano, DEP Director.





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Settlement
Agreement
target only
West Virginia?
RESOURCES

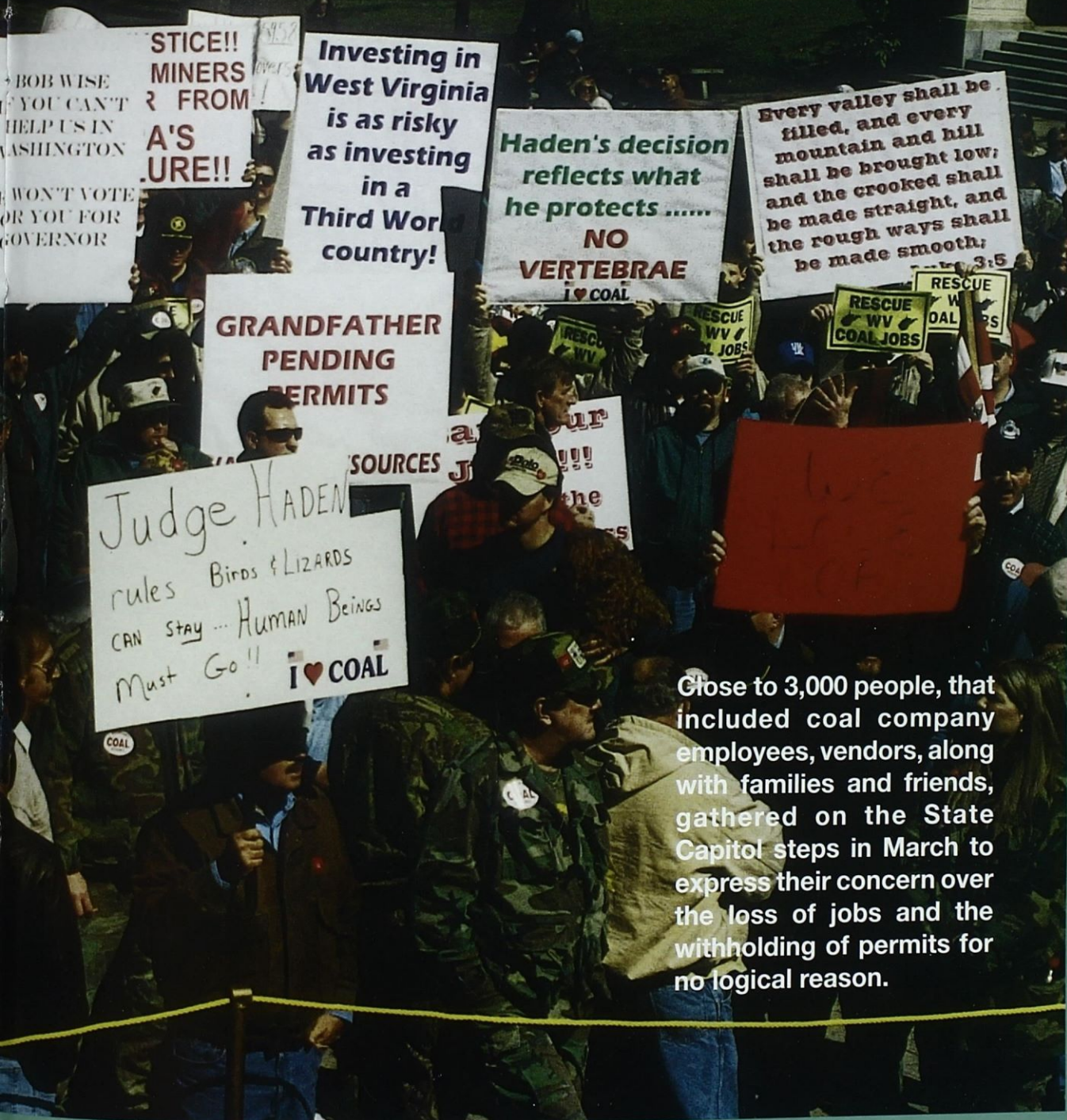
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MINERS
S.O.L.

How
Are you
Sleeping. Knowing
families are
Hurting

Environmentalists -
Have the
mountain
you own!!

Justice Rally

March 12, 1999



Close to 3,000 people, that included coal company employees, vendors, along with families and friends, gathered on the State Capitol steps in March to express their concern over the loss of jobs and the withholding of permits for no logical reason.



(Left) UMWA President, Cecil Roberts responds to cheers from the crowd as he walks with Governor Cecil Underwood, House Speaker Robert Kiss and Senate President Earl Ray Tomblin at the beginning of the Rally.

Cecil I. Walker Machinery Company employees (below), like many other coal vendors, came out in force to support the industry.

The Logan County Coal Vendors Association, organized a caravan of about 100 vehicles that circled the Federal Courthouse and the Capitol as a part of the Rally.





(Clockwise beginning at upper left): Several women wear veils to mourn what could be the beginning of the end of West Virginia's coal industry; Terry Vance, one of the leading organizers of the Rally, expresses what impact the recent court decision has on his family; a daughter of an employee shows it is more than just miners' jobs that will be affected; and numerous legislators demonstrate their support for the coal employees and the industry by standing on the Capitol steps during the brisk day in March.



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Catenary From Page 18

The Samples mine property was extensively mined by surface and underground methods during the 1950s and 1960s.

Mining during this time left old highwalls, abandoned refuse sites, open auger holes and drift mine entries.

All of these sites were potentially eligible for AML funding as well as created a hazard to the public and the environment.

Through the mining practices employed by the Samples operation, the total of the area will be eliminated.

To date, the Sample operation has eliminated more than 25 miles of abandoned highwalls with just over 22 miles remaining to be reclaimed, removed over 3 million tons of coal refuse, and reclaimed the abandoned coarse refuse pile.

Old highwalls have generally been eliminated through the normal mining operations.

The upper seam highwalls were eliminated by the mountaintop mining operation while large portions of the lower seam highwalls were covered with spoil in the valley fills.

In August 1994, Catenary and the DEP entered into a unique agreement whereby Catenary adopted the Tenmile site and integrated the reclamation of the site into its ongoing surface mining operations presented opportunities for both the State of West Virginia and Catenary.

The state would have the benefit of having the site reclaimed in an accelerated time frame and at a lower cost than if handled under the AML program.

Separately, in 1997, Catenary entered into an agreement with the state of West Virginia to participate in the reclamation of a second site in the headwaters of Cabin Creek.

Like earlier projects, Catenary undertook the reclamation of a substantially unreclaimed refuse area approximately 60 acres in size, to mitigate further degradation of water quality in Cabin Creek due to uncontrolled erosion, high iron concentrations, and low pH in the effluent leaving the site.

Similar to the Tenmile Fork project, a portion of the Kayford project, consisting of the construction of a wetlands and the relocation of a portion of an existing stream channel and private road, is being reclaimed in an accelerated time frame and at a lower cost than if handled under the AML program.



A scenic view of an area reclaimed by Catenary Coal Company.

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Mountain State Coal Classic

Whoever named it the "Mountain State Coal Classic," had the foresight of Nostradamus.

It has indeed become a classic.

This basketball tournament has become a legend in its own time and put Beckley on the "one of best high school basketball tournaments in the nation" map.

Overall, this basketball tournament has existed for 10 years. However, due to the lack of interest in Charleston five years ago, the tournament moved to Beckley and has grown by leaps and bounds ever since.

Under the watchful eye of Jim Justice, his staff has labored uncountable hours to make this a well-established tournament in a very short time.

This year, the Mountain State Coal Classic, played on January 18-23, had three high school teams nationally ranked at the time of the tournament. Mt. Zion Christian Academy, Durham, N.C. (last year's Coal Classic runner-up); Oak Hill Academy, Mouth of Wilson, VA; and Simon Gratz, Philadelphia; were

Tucker County's Derek Simmons (gold) takes on 6'7" Richwood standout, Jay Hewitt, during the Coal Classic's Division AA Championship game. Richwood won the game 59-56 and finished the regular season 22-0.



ic Draws National Attention

ranked nationally as 3rd, 4th and 12th, respectively, in the Associated Press' preseason poll. (Oak Hill Academy, finished the season ranked in the number one spot with a 31-0 record and Mt. Zion Christian Academy finished 16th at 23-4 in the *USA Today* poll.)

In the Coal Classic's AAA Division, the heavily favored Oak Hill Academy defeated Mt. Zion Christian Academy, 68-60, to capture Classic honors.

It was Mt. Zion who edged out Beckley's Woodrow Wilson in nail-biter earlier to make it to the championship round.

Mt. Zion was up at the half 26-25. However, with 1:59 remaining in the game, Woodrow Wilson had taken a 53-49 lead.

Then with just 12 seconds left, Woodrow Wilson's Brad Lambert made both foul shots to tie the game at 55.

But Mt. Zion had the advantage and the ball, and scored with just 3 second remaining sealing the fate for the Woodrow Wilson team.

Last year, a sold-out crowd saw Woodrow Wilson upset Mt. Zion in double overtime. This year's rematch, although having a different outcome, proved to be just as exciting.

In the AA Division, Richwood, behind standout Jay Hewitt, came on strong and defeated the Classic's

defending champions, Tucker County, 59-56.

Other game division winners were: Park Jr. High (Boys); Park Jr. High (Girls); Charleston Catholic High (Boys - A); George Washington High (Girls); and the College of WV.

Congratulations to Jim Justice, Terry Miller, June Akers, Byrd White and the numerous other people behind the scenes for putting together

another top notch tournament.

Classic fans wonder just how Justice and company can continue to outdo themselves every year.

As each Mountain State Coal Classic keeps drawing larger crowds, nationally ranked teams and national media, many people are already anxiously awaiting what promises to be a fantastic line up next year.

Good things are always worth waiting for.

High School and College Tournament Champions of the 1999 Coal Classic

Scores of Classic Championship Games

AAA	Oak Hill Academy	68
	Mt. Zion	60
AA	Richwood	59
	Tucker County	56
A	Charleston Catholic	60
	Marsh Fork	48
H.S. Girls	George Washington	52
	Tucker County	41
College	College of West Virginia	81
	Southern Wesleyan	60

College Scholarships: The Coal Classic's Best Kept Secret

\$97,000 Awarded in College Scholarships

The Mountain State Coal Classic basketball tournament has been in Beckley a mere five years.

It already draws national attention, sold out crowds and scads of college scouts.

It even has famed keynote speakers at its pregame banquet like Terry Bradshaw, Jerry West, and this year, Kareem Abdul-Jabbar.

However, there is one thing missing from the tournament, recognition for its scholarships given to the participating athletes.

Every year, \$500 college scholarships are given to one player and one cheerleader on each team in the

tournament. This year a total of \$19,000 in scholarships were awarded.

Since the Classic moved to Beckley five years ago, more than \$97,000 in college scholarships have been presented and \$170,000 given in direct support to participating schools.

Jim Justice, Coal Classic chair, continues to remind everyone that the tournament is for the kids. Everyone involved with the tournament agrees.

To many of the fans, awarding scholarships may not be as exciting as the games themselves, but to the athletes, they are just as important.

Athletes Who Received \$500 College Scholarships at the 1999 Mountain State Coal Classic

School	Player	Cheerleader
Baileysville	Danny Swank	Mandi White
Burch	Bub Crum	Tracy Slone
Charleston Catholic	Tommy Gibbons	Samantha Zaldivar
Elkins	Ryan Vance	Angie Bickle
Fayetteville	John West	Shannon Walls
George Washington	Shawntay Smith	Becky Heath
Marsh Fork	Roger Fraley	Lana Gwinn
Parkersburg South	Josh Edman	Carrie Williams
Princeton	Donald Pendergrass	Heather Burks
Richwood	Pat Caufield	Amy Cottrill
Oceana	Seth Morgan	Stephanie Browning
Nicholas County (Girls)	Jennifer Justice	Kristina Lerosé
Tucker County (Boys)	Jim Aliff	Gara Bowley
Tucker County (Girls)	Nikki Nelson	Jillian Roberts
Woodrow Wilson (Boys)	Drew Smith	Kenneth Bradley
Woodrow Wilson (Girls)	Monishia Howard	Tiffany Smyre
Wyoming East	Jason Blankenship	Stephanie Brown
College of WV		Lorinda Burgess

Oak Hill Academy, Mt. Zion Academy and Simon Gratz high schools each received a \$500 donation to the school's scholarship fund.



THE ISSUE ISN'T JUST BLACK AND WHITE.

It's not a simple matter. And there are many West Virginians with very strong feelings regarding West Virginia coal.

But from education to recreation, from economic security to community support, the coal industry plays a large role in our lives.

West Virginia communities enjoy clean water, better sewer facilities, ambulance and fire service, even lower electric rates than many other states, thanks to the contribution that coal makes to our economy.

Last year, the West Virginia coal industry contributed \$181 million in coal severance taxes alone to support these vital services.

KEEP IT IN PERSPECTIVE.

Surface mining affects less than one percent of West Virginia's surface. Certainly, housing developments and new shopping malls have had more total impact on West Virginia's landscape.

IN FACT:

- Coal is important to jobs. West Virginia coal employs 50,000 people directly, and about 200,000 people indirectly, in West Virginia.
- The mining industry is one of the most regulated in the world.
- Of all the coal exported by the United States, 50% comes from West Virginia.
- Coal is a necessity of life – it produces 99% of all electricity in West Virginia and 56% nationwide.
- West Virginia coal is important to our economy. Coal and coal-powered utilities pay an incredible 60% of all business taxes in the state and provide \$1 billion in West Virginia wages.

The issue isn't as simple as black and white. But it is urgent that we understand what's at stake. Issues affecting the very existence of West Virginia coal are being debated now in Washington and Charleston.

WORK IN PROGRESS.

Anyone who has built a home understands. When it's under construction it's not a pretty sight. It's similar to surface mining. When regrading and revegetation takes place, it's like a newly landscaped home site. We are committed to reclaiming the land – and, in fact, if you walk some of our older sites, you'd never know mining had ever taken place.

If you're concerned about the future of coal and our way of life, call or write your State Legislators, United States Senators and Congressmen. Urge them to consider these facts as they make decisions that affect our future.



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ADDING ALKALINITY TO WATER BY LIMESTONE LEACH BEDS

By

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Introduction

The Big Bear Lake Campground lies in the headwaters of Beaver Creek in Preston County, West Virginia. The watershed is impacted by pre-law mining in its lower stretches, but the headwaters are unaffected by mining.

However, timber harvesting around the turn of the century removed almost all trees from the headwaters. Subsequent storm events caused erosion and loss of topsoil in much of the area and exposed the underlying sandstone bedrock. Slightly acid conditions are present in the surface runoff water of the area. So the streams in this area are characterized by low pH (from 4.0 to 5.5), low acidity (between 20 to 75 mg/L as CaCO_3), and no alkalinity.

The 35-acre Big Bear Lake receives this acidic, unbuffered water containing no metals. The lake, which discharges into Beaver Creek, typically exhibits a pH of 5.5 and has an acidity concentration of 20 mg/L as CaCO_3 . Beaver Creek flows into Little Sandy Creek, then into Big Sandy Creek, and finally into the Cheat River.

The West Virginia Division of Environmental Protection, Stream Restoration Group began sampling the Beaver Creek watershed in conjunction with its water quality inventory of the Lower Cheat River Sub-basin in 1996. Their data also confirm the slightly acidic nature of the headwaters of Beaver Creek. If a small amount of alkalinity could be added to the headwaters in the Big Bear Lake area, the possibility exists for Beaver Creek to support fish.

In order to add alkalinity to the headwaters, several methods were considered. The first was limestone sand addition. The WVDEP has had great success in raising the water quality in similar watersheds using limestone

sand. The method involves adding limestone sand to the banks of a small stream and allowing the sand to gradually wash into the stream. Most of the limestone sand dissolves in the water and some of the undissolved limestone may become incorporated into the stream bed. This method requires periodic replenishing of the limestone sand as it is exhausted. Various passive systems were also considered.

Another method, developed under the Office of Surface Mining's Clean Streams Initiative, is the use of limestone leach beds. In this method, cells containing varying sizes of limestone are constructed, and water containing no metals is passed through them (Figure 1).

The water slowly dissolves the limestone and the effluent water generally contains an alkalinity concentration from 50 to 80 mg/L as CaCO_3 . Other materials can generate higher alkalinities in water but they are usually more expensive to acquire.

For this project, one large cell of limestone was designed to add alkalinity to the water entering Big Bear Lake. It was anticipated that a small alkaline leach bed, coupled with future work planned by the Abandoned Mine Land Reclamation Program of WVDEP further downstream, has the potential to restore a fishery in Beaver Creek.

Project Description

A limestone leach bed was designed to add alkalinity to the water entering the 35-acre Big Bear Lake. The amount of limestone to place in the leach bed was estimated by a spreadsheet developed by Paul Ziemkiewicz. The input variables and the resulting values are displayed in Table 1. A total of 48 tons of alkalinity are predicted to be released from the system per year. The initial design of the system was completed

by the National Mine Land Reclamation Center at West Virginia University and a final detailed design of the structure was completed by Triad Engineering, Inc. of Morgantown, WV (Diagram 1).

The land area contributing drainage to the alkaline leach bed covers approximately 835 acres. The water from this area is collected into a small lake, which is used as a swimming area for the Big Bear Lake Campground. The water exits this small lake through two culverts under a road. The current culverts on the site could only handle about 4% of a 100-year storm event. After conversations with the landowner, it was agreed to place larger culverts under the road to reduce the potential of flooding and to protect the leach bed from being washed out during a storm event. Triad Engi-

neering designed additional culverts and the contractor installed these culverts underneath a redesigned and raised road bed to protect the leach bed from flooding (Figure 2). The additional culverts, to the left in figure 3, now handle greater than 15% of a 100-year storm event.

The limestone leach bed receives water from one 8-inch inlet pipe. This pipe was installed just below the elevation of the lowest culvert and receives water from the swimming lake. The inlet allows from 100 to 120 gpm into the leach bed. Any amount of water over what the 8-inch pipe can take will flow through culverts under the road into Beaver Creek.

An area of about 200 feet in length, 50 feet across and 4 feet deep was excavated near the stream and

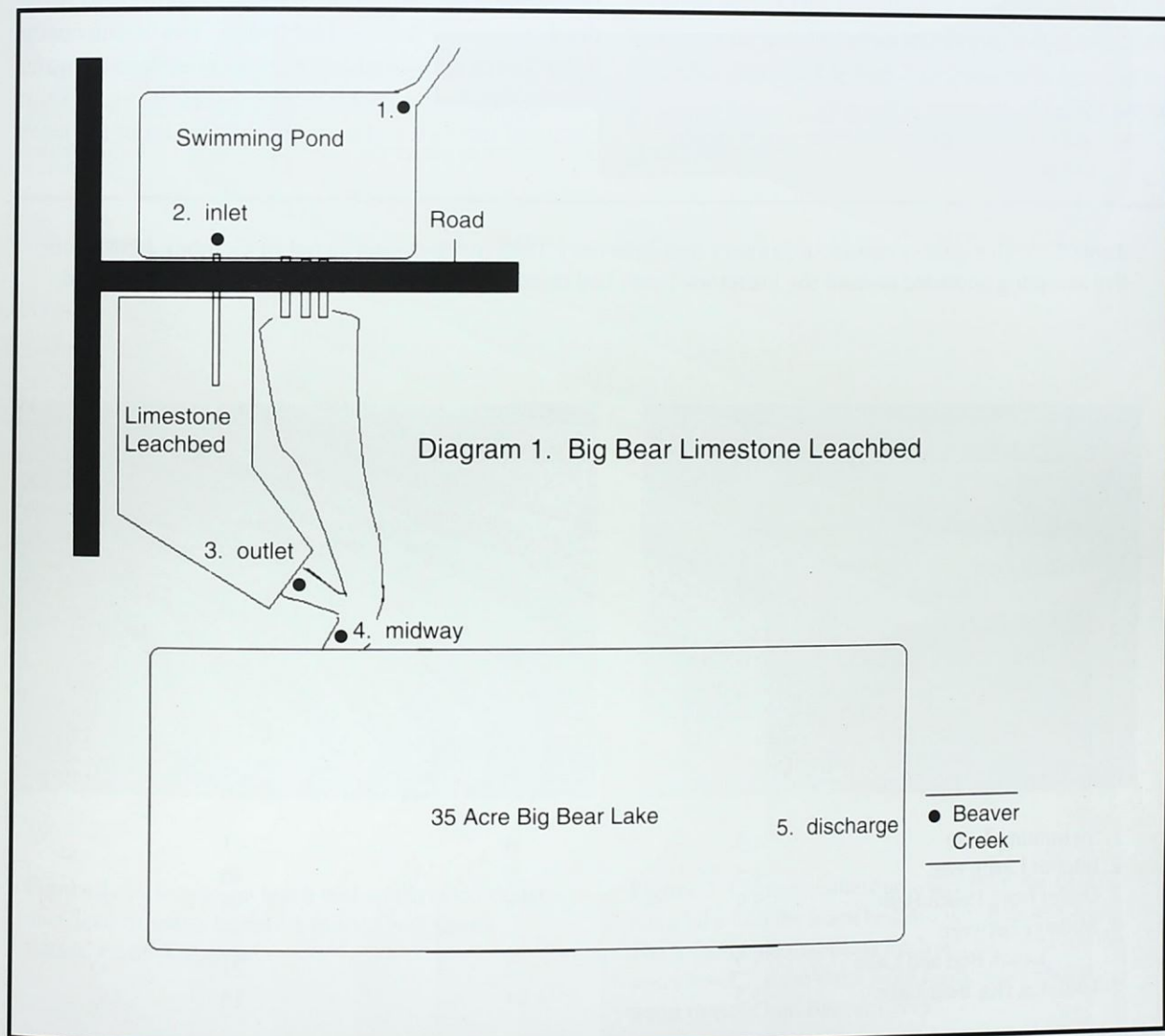
Table 1. Input variables and the expected results from the construction of a limestone leach bed near Big Bear Lake.

<u>Input Variable</u>	<u>Leach bed</u>	<u>Units</u>
Original Alkalinity	-20	ppm
Flow	120	gpm
Channel Cross Section	200	Sq. Ft.
Depth	4	Ft.
Width	50	Ft.
Length	200	Ft.
Void Ratio	50	%
 <u>Results</u>	 <u>Leach bed</u>	 <u>Units</u>
Velocity	0.0033	Ft./Sec.
Residence Time	16.6	Hrs.
Final Alkalinity Conc.	54	PPM
Original Alkalinity Load	-18	Tons/Yr.
Final Alkalinity Load	48	Tons/Yr.
Limestone Required	2,200	Tons

below the swimming lake. A synthetic liner was placed in the excavation to make sure water does not leak from the leach bed. Approximately one foot of limestone chips was first placed in the bottom of the limestone leach bed to increase surface area and reaction between limestone and water (Figure 3). Next, about three feet of large, 2- to 4-inch limestone rock was placed on top of the layer of limestone chips. A total of about 2,000 tons of limestone was placed in the leach bed.

In addition to the concerns with leaking and flooding, the site is frequented by campers, which may find

the leach bed interesting. As mentioned, the leach bed is located just downstream from a small lake used for swimming by property owners and campers at Big Bear Lake Campground. A wooden split rail fence was built around the leach bed to restrict access to the limestone leach bed (Figure 4). To prevent the 8-inch pipe inlet from being clogged, a gate system was devised so that Big Bear Lake Campground personnel could periodically clean the inlet from debris. The leach bed is also designed so that no water will extend above the limestone.



Initial Performance

Water samples were taken from five points to evaluate initial performance of the limestone leach bed. The first water sample was taken from the small swimming lake above the limestone leach bed. The second came from the inflow pipe and the third sample came from the outflow of the leach bed. The fourth water sample was taken between the limestone leach bed and Big Bear Lake, and the fifth sample was taken at the outflow of Big Bear Lake.

Prior to construction, Big Bear Lake exhibited a pH of 6.0 and an acidity of 20 mg/L as CaCO_3 . The analysis of water samples taken in January 1999, approximately two months after construction, and February 1999 are shown in Table 2.

At the January sampling date, the water quality of

the swimming lake was much like we expected: the pH was around 5.0 and acidity was 20 mg/L as CaCO_3 . At the inlet to the leach bed, the water quality had improved slightly. At the outlet, the water pH was 7.2 and the water had gone from net acid to slightly alkaline (15 mg/L as CaCO_3). At the outlet of Big Bear Lake, the discharging water had a pH of 6.8 with low acidity and low alkalinity.

At the sampling time in February, much of the swimming lake, the leach bed and the sides of Big Bear Lake were frozen. According to our analysis, the limestone leach bed raised water pH from 4.5 to 5.8, but did not generate net alkaline water. The frozen conditions did not allow sufficient contact between the water and the limestone, and it is likely that the water short circuited through a channel in the middle of the leach

Table 2. Water quality results in January and February 1999 (project completed in October 1998) from five sampling locations around the limestone leach bed constructed at the Big Bear Lake Campground.

<u>Location</u>	<u>pH</u>	<u>Alkalinity</u> mg/L as CaCO_3	<u>Acidity</u>
<u>January 1999 Data</u>			
1. Swimming Lake	5.0	0	20
2. Inlet to Leach Bed	6.0	2	15
3. Outlet from Leach Bed	7.2	15	0
4. Midway between Leach Bed and Lake	7.0	9	6
5. Outlet at Big Bear Lake	6.8	6	7
<u>February 1999 Data</u>			
1. Swimming Lake	4.3	0	41
2. Inlet to Leach Bed	4.5	0	46
3. Outlet from Leach Bed	5.8	5	35
4. Midway between Leach Bed and Lake	5.2	2	21
5. Outlet at Big Bear Lake	5.5	4	14

bed allowing very little treatment. Cold temperatures also slowed limestone reaction and dissolution. By the time the water discharged from Big Bear Lake, water pH remained about the same as that coming from the leach bed, and some of the acidity had been neutralized. In this area of Preston County, February is normally a very cold and snowy period and sampling water at this time is an unpleasant experience.

Personnel at Big Bear Lake will continue to monitor the water quality at these five points in the Big Bear Lake area.

In the spring of 1999, a depth profile of Big Bear Lake is planned. Parameters of interest include pH, acidity, alkalinity, conductivity, iron and aluminum at

various depths in the lake. Water quality will also be monitored in Beaver Creek downstream of Big Bear Lake. Benthic sampling is planned for the fall of 1999 and in future years to monitor the health of Beaver Creek.

Acknowledgments

This project was funded by Friends of the Cheat, Inc. through a grant from the U.S. Environmental Protection Agency. The work was performed by Groundbreakers, Inc. of Bridgeport, WV. Project design was provided by Triad Engineering, Inc. and the National Mine Land Reclamation Center at West Virginia University.



Figure 1. A limestone leach bed constructed under the Clean Streams Initiative in the Cane Creek watershed of Alabama.

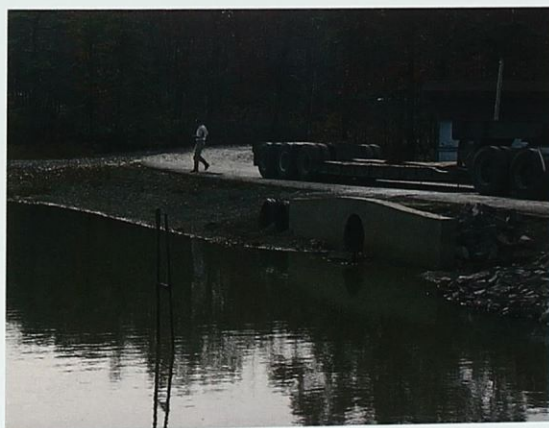


Figure 2. Culverts outletting water from the swimming lake into the leach bed and into Beaver Creek. The 8-inch pipe that feeds the leach bed is below the water level and the three large pipes allow excess water to flow into Beaver Creek.

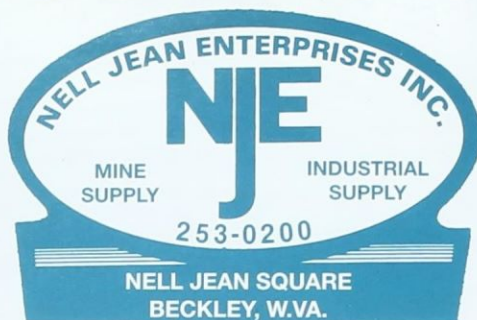


Figure 3. Construction of the limestone leach bed with limestone chips placed at the bottom overlain with large limestone rock. The 8-inch inlet pipe is the green pipe in the foreground.



Figure 4. The leach bed inlet pipe in the foreground delivers approximately 100 to 120 gpm from the swimming lake into the leach bed. The leach bed is about 50 feet wide, 4 feet deep, and 200 feet long. The split rail fence restricts access to the leach bed.

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