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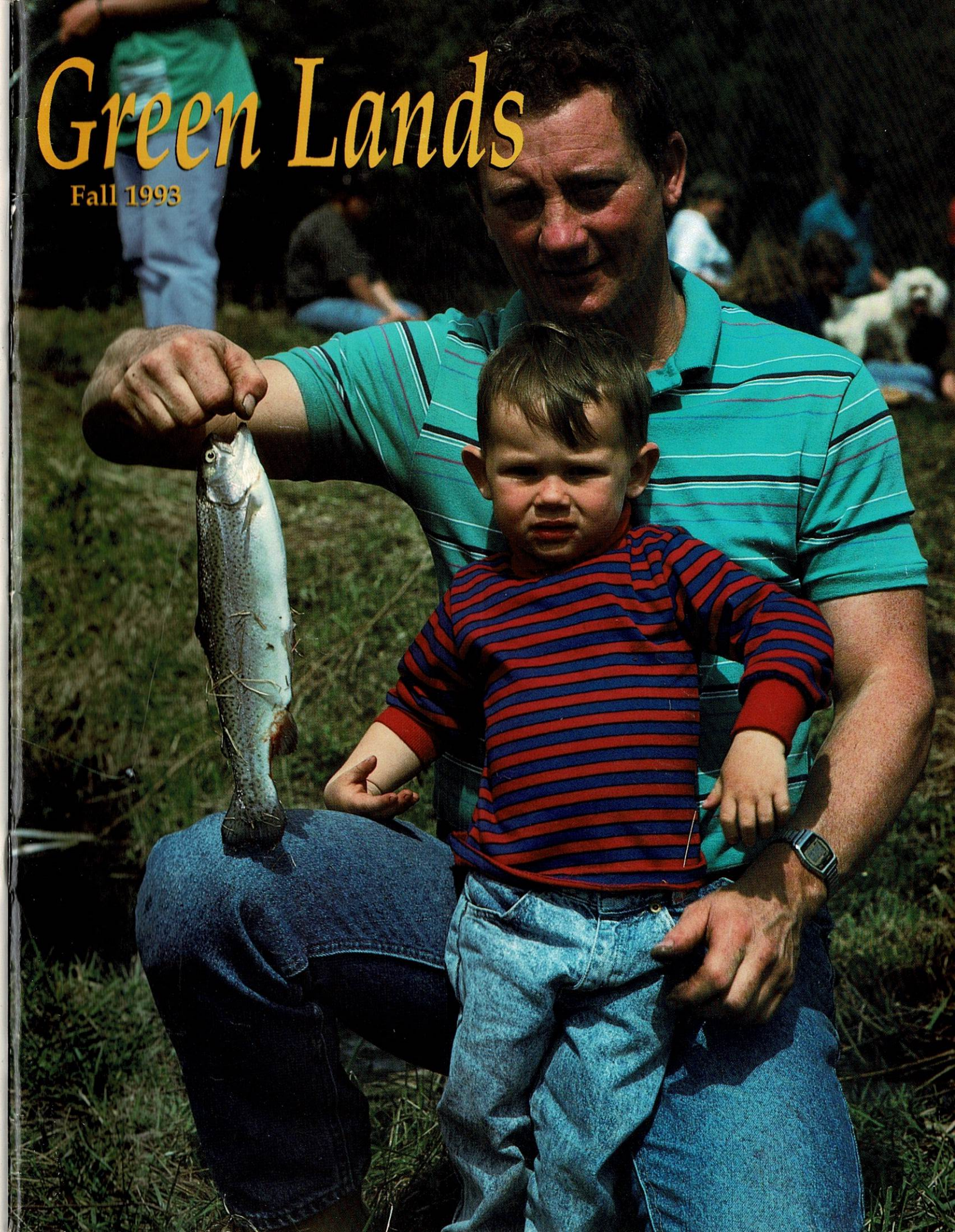
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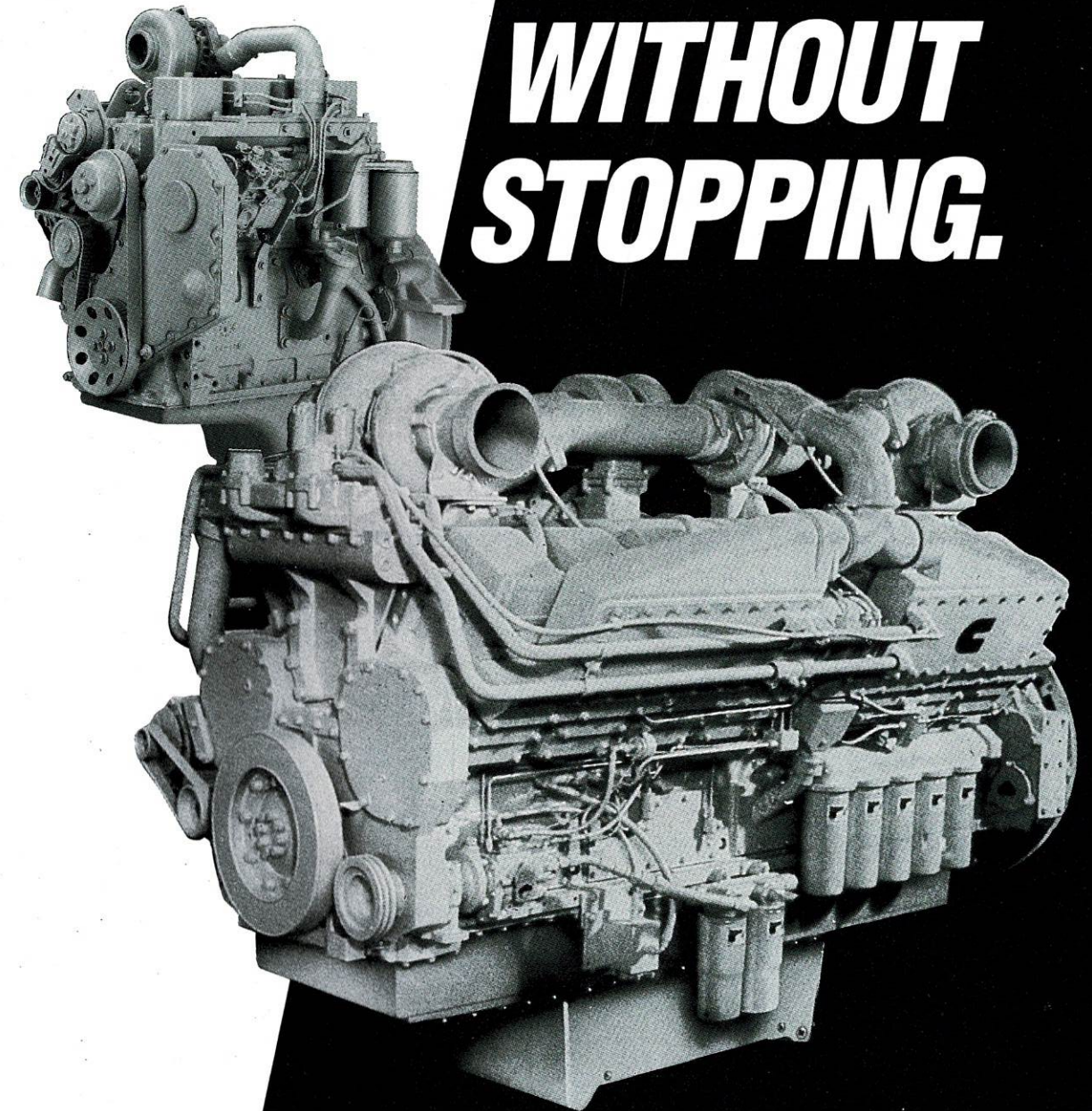


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Green Lands

Volume 23 Number 4

- 6 'Minefish thrive in Fayette County
- 12 Northgate rises from Charleston woods
- 18 John Bryan is WVMRA's 27th Chairman
- 30 Old and new win company pride awards
- 36 Acid Mine Drainage Treatment with the Aquafix System
- 43 Association Notebook

Green Lands

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Our Cover

Lawrence and Lemule Myers
pose proudly with the rainbow trout caught from
a Meadow River Coal Co. sediment pond
on Employee Appreciation Day
Our cover story begins on page 6. (photo by Tim Cox)

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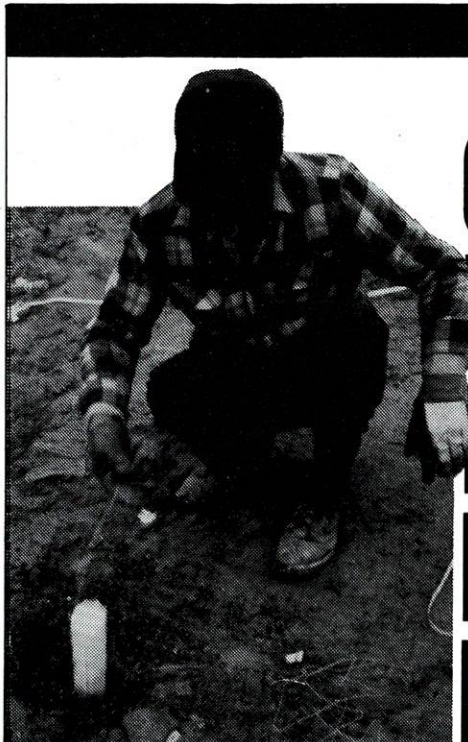
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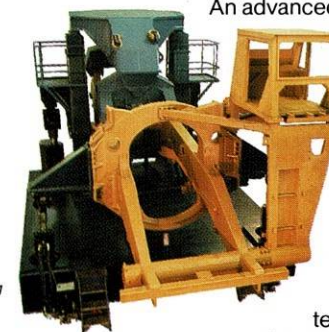
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Index to Advertisers

Akers Supply.....	44	ICI Explosives	39
Anderson of West Virginia	5	Kanawha Steel & Equipment.....	26
Austin Powder.....	41	Massie Reclamation.....	41
Beckwith Machinery.....	back cover	Miller & Miller.....	42
Bell Farms Reclamation Service.....	27	Mt. State Bit Service.....	4
Cardinal Construction.....	28	National Ammonia.....	15
Carter Machinery.....	2	Nell Jean Enterprises.....	44
Cecil I. Walker Machinery.....	22 & 23	New Directions Media.....	43
Crown Hill Equipment	17	Ohio Seed.....	27
Cummins Cumberland.....	1	Penn Line Service.....	33
DYNO NOBEL, Inc.	29	Petroleum Products.....	34
Eagle Carbon.....	28	REICHdrill.....	40
Flat Top Insurance.....	32	Rish Equipment.....	inside back cover
Forke Brothers	34	Rudd Equipment.....	inside front cover
Heavy Machines.....	16	Stowers & Sons.....	35
Hotsy Equipment.....	9	Terra Engineers.....	43
Ingersoll Rand.....	10 & 11	TerraSod.....	35
J & G Seeding	44		

'Minefish' thriving in Fayette County

by Dan Miller

The Meadow River Coal Co. belies the big coal image of its parent, Pittston Coal Co. Operating two small mines nestled on the green hillside of the New River Gorge in Fayette County, Meadow River blends in so well with its rustic environment that most folks probably don't know about the effect the company has had on the local fish count.

In addition to its mining operation, Meadow River Coal Co. is where Edsel Redden raises trout. Redden is a West Virginia University Extension Agent in Raleigh County. Part of his job is to conceive, organize and execute experimental projects for the benefit of wildlife, agriculture and West Virginia life in general.

A few years ago, he had this idea about raising trout. "All you need to raise trout are cool, clean, moving water, oxygen and food," he says, understating the rarity of that combination of elements. The main obstacle is the moving water part.

The hills of southern West Virginia are full of little underground springs. The water is clean, it's cool and it moves. The problem is volume. Most of these springs do not generate the high flow capacity needed to sustain trout.

But, Redden, a Raleigh County native and former coal miner, knew that worked out mine shafts collect underground spring water. "There's a tremendous amount of water in old deep mines in this area," he says. "They're really like underground lakes. Several of these springs collect in the old shaft areas and come out of the ground as one stream, clean, cool and with a terrific flow capacity."



Meadow River's Rainbows are growing from four inches to about a foot in length during their six months in the tank.

That's what brought Redden and the mining industry back together. "Coal miners have stocked trout in sediment ponds for years," Redden observes. "There is no question about the fish thriving in that environment. What I wanted to do was to see if trout could be raised in mine water. And I was fairly confident that it would work, simply because everything we need is there."

Even with Mother Nature on his side, Redden needed the cooperation of several other parties to get the project off the ground. WVU approved the experiment. The Freshwater Institute, headquartered near Shepherdstown, explores economically feasible, scientifically valid, innovative approaches to the wise use of inland water resources. The Freshwater Institute provided \$25,000, through a grant from the U.S. Department of Agriculture, the Appalachian Regional Commission, the Benedum Foundation and the Steele-Reese Foundation.



Water is oxygenated before flowing into the fish tanks by a simple mechanical means of exposing to fresh air.



The Pittston Coal Group was really the key player, lending its mine site, manpower, expertise, additional funding and general cooperation.

"This project has proven to be the perfect marriage of industry and environment," says Redden. "I can't overemphasize the effort put into this by Pittston. Mine Manager Vince Calvert and Superintendent Jim Lively have been particularly helpful."

"What we've been doing for the last two years is mainly perfecting fish management techniques for this environment. Vince, Jim and their people have been invaluable in that regard. You know, mining people are some of the greatest innovators around. They're used to problem solving and that's the kind of role they've played here. Without Pittston, this project just wouldn't have gone anywhere."

The result is the first known instance of fish being raised in quantity on an active mine site.

The mechanics of the "minefish" operation are remarkably uncomplicated. At the New River Mine, water comes out of the old Kayford underground mines at the rate of 1000 gallons a minute, ten times the rate needed for trout. Some of the water is used for the active mine operation. The excess is diverted through a simplified oxygenation system into eight six-foot round holding tanks where it serves as a thriving environment for rainbow trout. The trout water and the mine water, both untreated, drain into a sediment pond, then flow down the mountain to the New River, clean as a whistle.

At the Meadow River Mine, water is pumped 400 feet through ten holding tanks and on to the pond. The trout tanks actually sit between the mine and the sediment pond.

Initially, the holding tanks were "stocked" with 400 4-inch fish. Redden and his Pittston partners provided food, monitored the water for oxygen content and shipped a few fish off for health test purposes.

"We have yet to experience a health problem with our fish," reports Redden. "In fact, they are doing so well that the growth rate has been around 1.5 inches per month, which is very good." At that rate, the fish are a foot long and ready for market after about six months.

"Market" is part of the point of the experiment. Most of the trout consumed worldwide come from "fish farms." The leading U. S. producer is Idaho.

At the Meadow River Mine, the trout tanks are situated directly between the mine and the sediment pond, demonstrating the ability of the fish to thrive in untreated mine water.



At the New River Mine, water flows from the fish tanks into the sediment pond

Redden thinks West Virginia can enter that market in a big way. "If we get a throttle on this resource, set up a production system, we can have a trout producing industry to rival that of Idaho. Fish is supposed to be the food of the 90's. Trout is a big part of that, and West Virginia is right for trout. This is a viable alternative living for West Virginia families."

Vince Calvert is thinking more in local terms for his fish mine/farm. "We'd like to use these fish to stock streams here in Fayette County. A lot of our people like to fish and this is an opportunity to do something good for the



. . . . and then whitewaters on down to the New River.

community. There's no doubt that would go over in a big way. Meadow River Coal employs some three hundred people.

In April the company held an "Employee Appreciation Day," picnic and fishing derby, stocking its Meadow River Mine ponds with its mine raised trout. "A lot of our people thought it was the best thing we'd ever done, says Calvert. "So we plan to do it again."

That's just fine with Edsel Redden, the presiding preacher of "the perfect marriage of industry and environment."



Vince Calvert is happy to demonstrate the success of the project, as well as his trout fishing technique.



Meadow River families turned out in force for the fishing derby on "Employee Appreciation Day."

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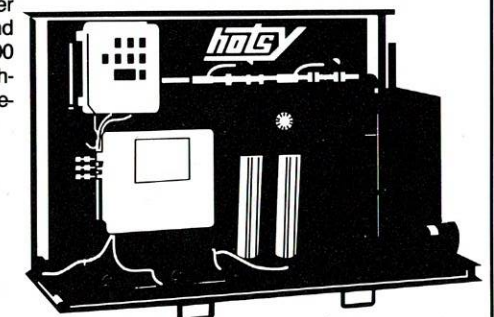
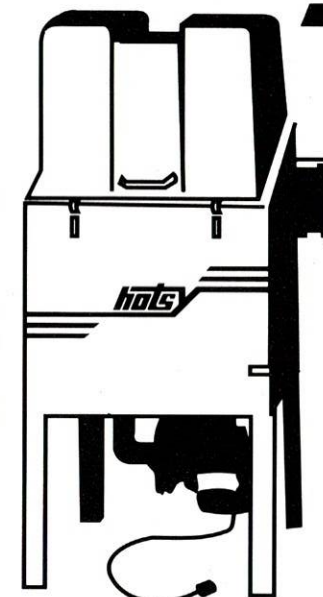
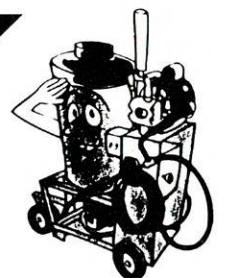
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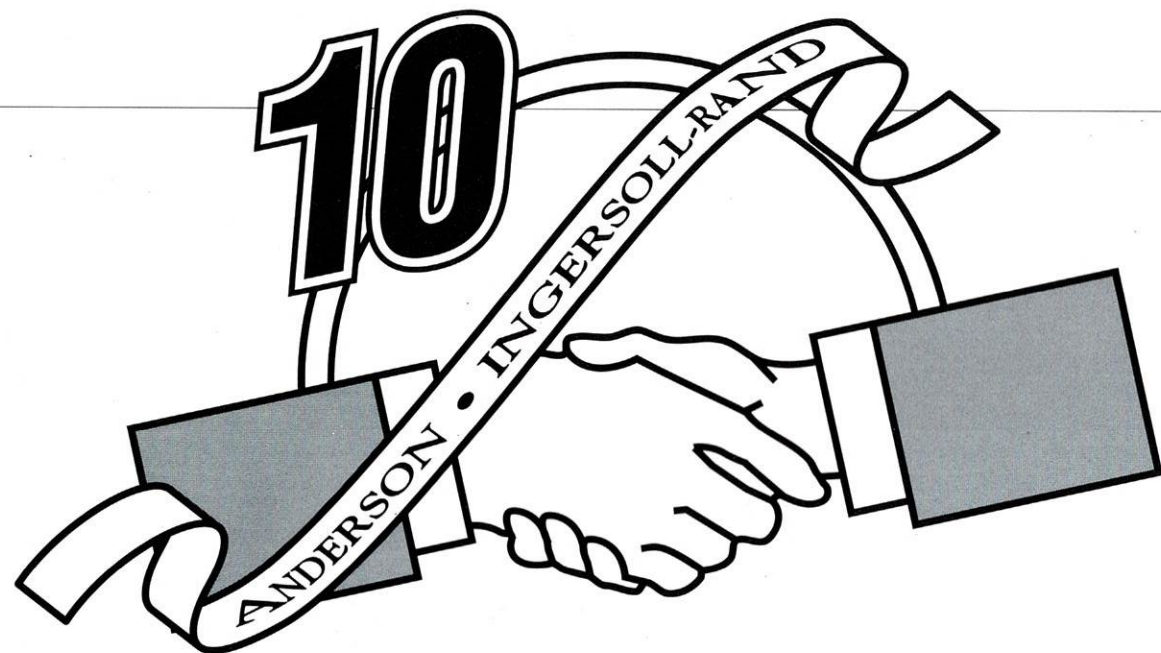
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The summit of NorthGate commands a view of downtown Charleston (background). To the extreme left is Greenbrier Street, which runs from Yeager Airport to the West Virginia State Capitol.

NORTHGATE

rises from Charleston woods

John Wellford has a vision for Charleston, for West Virginia, really.

"This is the kind of development that exists in other parts of the country, but not in West Virginia," says the enthusiastic Wellford. "This" means NorthGate, a 400 acre business park rising out of the woods between the State Capitol in the east end of Charleston and Yeager Airport, which serves the greater Kanawha Valley.

NorthGate is the product of a combination of drive and circumstances. The drive comes from John Wellford. The circumstances were his need for new office space.

NorthGate was conceived indirectly in 1984, when Armco Inc. decided to dispose of its West Virginia operations. Armco sold its coal properties to Peabody Coal Co. The construction unit went to a young employee named John Wellford.

"When we bought the construction company," he recalls, there was a very difficult job in progress at Kimberly, in Fayette County. The future of the company would be determined by the outcome of that project, so I named the company Kimberly Industries."

Inspired by the legendary independent entrepreneurs of West Virginia's coal industry, Wellford set about making his new company profitable.

"The main thing we did was to diversify our clientele. Our employees had been highly skilled coal construction employees. That meant they had tremendous adaptation skills and that they were used to dealing with stringent environmental conditions. These qualities made Kimberly well suited for all types of earth moving and heavy/highway construction. We have continued to work in the coal industry, but we have also branched off into landfills, golf courses, airports, haevy/highway and many other types of projects."



Kimberly's mine reclamation experience is apparent in its use of modern earthmoving techniques to minimize land disturbance.

In seven years, the Kimberly workforce expanded from 30 to nearly 100. With rapid growth came the need for roomier quarters. "I came up here to look at about three acres of this property and I wound up with over 400. When I saw what was here, I just fell in love with it. When you walk this property, you realize how beautiful it is."

Wellford set aside the three acres for a new Kimberly Industries office site. But by then he was planning on a much grander scale.

"What we want to do here is to allow downtown Charleston to grow to the north. Right now, there is a lack of modern, convenient office space with parking in this area. That's why I was up here looking in the first place."

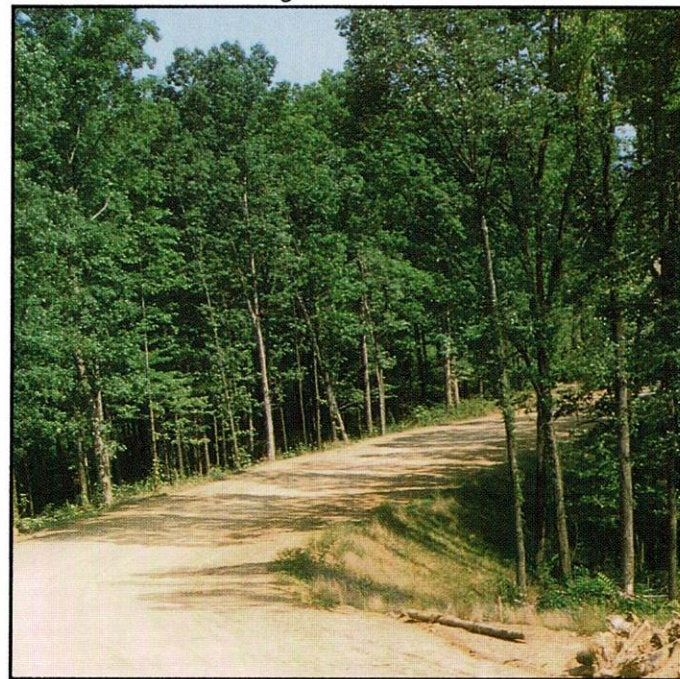
NorthGate's location is improbable in a city of Charleston's size. It's a five minute drive to the Capitol and downtown Charleston, less than that to the airport.

Wellford's plan for NorthGate encompasses a sizable business office park set into an impressively green environment. The land use plan envisions 300,000 square feet of office space in 79 buildings, subdivided by size and function. It also allows for spacious parking, ten miles of roadway, a day care center, car service center, a major hotel, several restaurants, three ponds, a lake, a golf driving range, hiking and biking trails and there's room left for facilities as yet unproposed.

"We looked at several other developments across the southeast and put together a very specific plan for the entire complex," says Wellford, displaying a 53 page book of restricted covenants. "The short version of this document is that we will exercise total control in the development phase, in order to maintain quality. We have a tremendous 'green space' here and we intend to keep that. There are deer and turkey up here now and I expect they'll still be here when the development is completed."

"Eventually, NorthGate will be governed by what I hope will be a vibrant and active owners' association. Right now, we have a terrific team of West Virginians, engineers, planners and construction people, at work on this project and we want to take full advantage of that. So, what we are doing is sitting down with potential clients to evaluate their needs and general situation in order to match them to a building site at a specific location within the park. Once we determine a client's needs, then we will put that package together. The key is to be able to build quickly and we're organized to do that."

Wellford says "we" a lot. The "we" refers to the entire Kimberly employee team. I've been blessed with good people. Steve Cvechko, for instance, and our operations crew. These are people who are very good at what they do." NorthGate is a Kimberly project from start to finish. The mining reclamation skills honed by Kimberly workers are apparent on the NorthGate construction site. There is no coal on the site, but otherwise the operation looks very much like a modern regraded surface mine.



More than ten miles of roadway will eventually be paved at NorthGate, but the "Country Roads" appearance will remain.



Kimberly Industries is already at home in its new NorthGate offices. To the right is the road leading to the main entrance. Greenbrier Street is at the upper left.

NorthGate has already had an impact on Charleston. In anticipation of heavier traffic, Greenbrier Street, which runs from the Capitol to the airport, has been widened to three lanes and traffic signals will be installed at the entrances to NorthGate and an adjacent housing development. Kimberly provided the engineering gratis, donated \$150,000 and freed up its access road grant, which enabled the Division of Highways to complete the total upgrade.

Kimberly's office has been open for about a year. The main corridor is graded and will be paved later in the fall. The next building, now under construction, will house Hewlett Packard sometime next spring. The National Association of Landscape Architects is looking at NorthGate as a potential headquarters. It is the only West Virginia location under consideration.

About 60 people are at presently at work in the park. A year from now it will be more like 600. Eventually it will be 6000. This is part of Wellford's vision.

"West Virginia will only grow from within. The state must be in other businesses besides coal. But coal will continue to be a staple industry of the state. We can all take a lesson from independent visionary men like Buck Harless and Lawson Hamilton. I don't think most people realize how fortunate this state is to have had men like them doing business here. What they have done is to create opportunities for West Virginia and that's what we want to do here."

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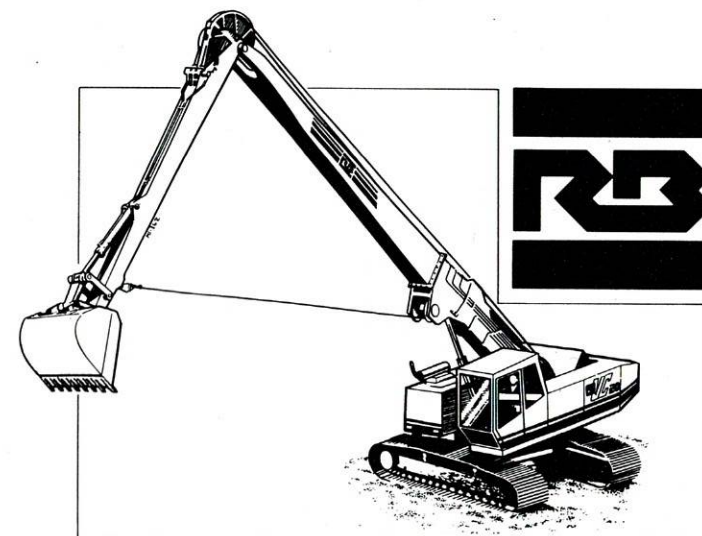
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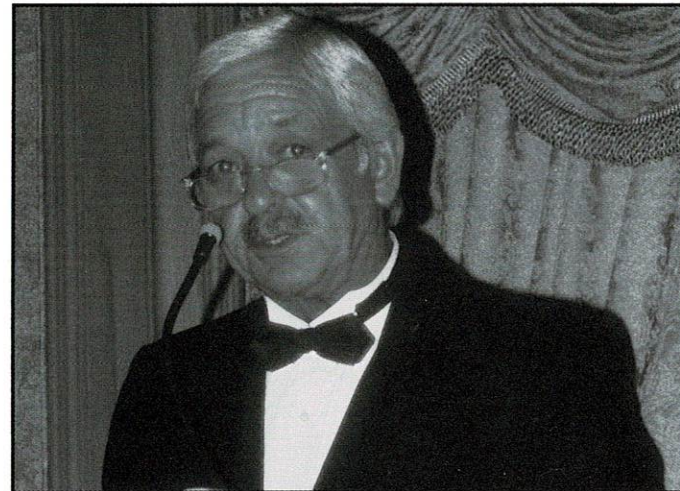
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Outgoing Chairman Gerald Ramsburg and his wife, Pat.



New Chairman John Bryan addresses the Association.

John Bryan is WVMRA's 27th Chairman

New chairman

John R. Bryan of The Pittston Coal Group, Lebanon, VA is the new Chairman of the Association's Board of Directors. He succeeds 1992-93 Chairman Gerald W. Ramsburg of C & W Coal Co., Clarksburg.

John is a native of St. Paul, VA and a graduate of East Tennessee State University, with graduate studies in environmental science. He has spent his entire mining career with Pittston, beginning in 1969 when he was hired as an environmental engineer. His current position as Vice president of Environmental Affairs & Government Relations divides his time primarily between the coalfields of southern West Virginia, southwest Virginia and eastern Kentucky.

John has been active in county and local politics in his home area, as well as economic development projects and youth sports programs. He has been affiliated with WVMRA for over 20 years and has been a member of the organization's Board of Directors for the past eight years, including a term as secretary. He makes his home in Castlewood, VA with his wife, Mary, and their children, Stephanie, John and Jenny.

Other new officers

Also at the Annual Meeting, James M. Compton of Grafton Coal Co., Clarksburg, was elected to the post of 1st vice chairman and W. Anthony DiRico, Jr. of Arch of West Virginia in Yolyn was chosen as 2nd vice chairman for the coming year.

Sidney R. Young, III of Hampden Coal Co., Inc., Gilbert, was elected secretary and Markus J. Ladd of Mingo Logan Coal Co. in Wharnccliffe is the new treasurer. Associate Division Chairman D. Steven Walker of Cecil I. Walker Machinery, Inc., Charleston, was reelected to that position.

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1983-84	Tracy W. Hylton
1984-85	Carl DeSignore
1985-86	Dwight M. Keating
1986-87	Theodore J. Brisky
1987-88	James W. Anderson
1988-89	Roy G. Lockard
1989-90	Paul F. Hutchins
1990-91	Kenneth G. Woodring
1991-92	R. Donald Cussins
1992-93	Gerald W. Ramsburg

Board members

Seven representatives from the General Division were reelected to the Board, including Compton and DiRico, as well as: James W. Anderson, Anderson & Anderson Contractors, Inc., Princeton; John J. Faltis, Anker Energy Corp., Morgantown; Tracy W. Hylton, Perry and Hylton, Inc., Beckley; Gerald W. Ramsburg, C & W Coal Co., Bridgeport, and Daniel B. Scherder, Eastern Associated Coal Corp., Charleston. James C. Justice, II of Bluestone

Coal Corp. in Beckley was named to fill the remainder of the term of the late James C. Justice, Sr.

The Associate Division elected two new members to the Board, including David E. Huffman, Beckwith Machinery Co., Bridgeport, and Robert L. Raines, Pocahontas Land Corp., Bluefield. Paul A. Laskody, Jr. of Mt. State Bit Service, Morgantown, who previously filled an unexpired term, was elected to the Board.

Membership Drive

Thanks to the "Each One -- Get One" membership drive spearheaded by outgoing Chairman Gerald Ramsburg, WVMRA was able to add an unprecedented 43 new members to its ranks.

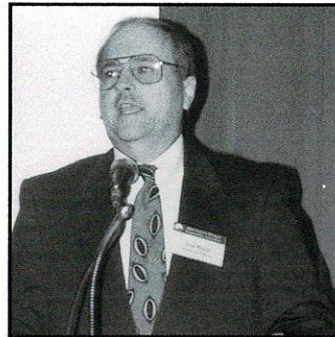
The latest members of "Coal's First Team" are:

Company	Location	Representative
General		
C & J Coal Corp.	Buckhannon	John Taylor
LJK Coal Mining, Inc.	Beckley	Stanley Edwards
The Lady H Coal Co.	Leivasy	Clyde See
Vandalia Resources, Inc.	Montgomery	G. O. Young
ASSOCIATE		
All Seasons Forestry	Arpin, WI	John Zalabak
Anthony Crane Rental	Nitro	Bob Giesler, Jr.
Appalachian Power Co.	Charleston	Scott Icard
Austin Sales, Inc.	Vansant, VA	Sam Hale
B & L Excavating Co., Inc.	Lynco	Betty St. Clair
Continental Conveyor & Equipment Co.	Winfield, AL	Richard Allen
Evergreen Reclamation Co., Inc.	Man	David Cochran
GH Hensley Industries	Dallas, TX	Wes Martin
Glenn Springs Holding Co.	Lexington, KY	Al Meek
Hi-Tech Construction Co., Inc.	Belfry, KY	Carl Runyon
J & M Seed Distributors	London, KY	Mike Rudder
John Henry Rock Drills, Inc.	Charleston	F. B. Nutter, Sr.
Komatsu Dresser Co.	Norcross, GA	Kelly Littlefield
M G C, Inc.	Bolt	Marcel Caron
Maxim Engineering, Inc.	Norton, VA	T. R. Collier
McGrew Tire Co., Inc.	Holden	Roger McGrew
Paper, Calmenson & Co.	St. Paul, MI	Warner Nibbe
Peakwood Capital Corp.	Roanoke, VA	Paul Head
Poskas Oil and Supply Co., Inc.	North Tazewell, VA	Larry Poskas
R & K Enterprises	Kingwood	Russell Bolyard
REICHdrill, Inc.	Philipsburg, PA	Robert Valli
Robco Mine Service, Inc.	Logan	Robert Fortner
Sammons Surveying, Inc.	Baisden	Phil Longenecker
Sauls Engineers, Inc.	Nashville, TN	Ron Dyer
Simpson & Osborne, CPA'S, A.C.	Charleston	Sandra Thomas
South-West Insurance Agency, Inc..	Big Stone Gap, VA	Winston Witt, Jr.
Special Forces International, Inc..	Lenore	Scotty Manns
Strategic Health Services, Inc.	Charleston	rita baker
Taylor Brothers Welding Service, Inc.	Tamaroa, IL	Roger Thomas
Triangle Insurance Agency, Inc.	Charleston	John Jacobs
Virginia Power - Mt. Storm Power Station	Mt. Storm	Michael Warner

Speakers



Jack Canfield
Chas. Area Medical Center
'Health Care Predictions'



Joe Price
Robinson & McElwee
'Employee Benefits'



Marshall Miller
Marshall Miller & Associates
'Global Warming'

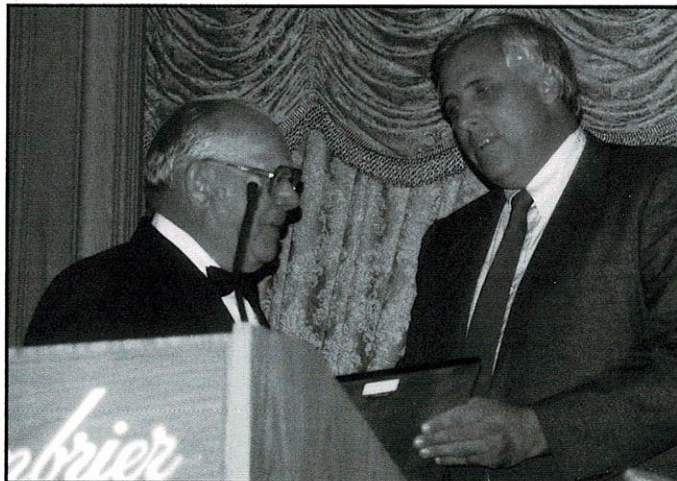


Forest Roles
Smith, Heenan & Althen
'BCOA-UMWA Contract'

Board honors Jim Justice with honorary membership

During the Annual Meeting, the Board of Directors designated the late James C. Justice, Sr. as an honorary member of the Board.

Jim was a former chairman and long-time key member of the Association who passed away June 11. His son, James C. Justice, II accepted the honorary member plaque from his father's long-time associate, Lawson Hamilton. In addition, the Association will honor Jim with a contribution of \$10,000 to the Association Scholarship Fund at West Virginia University's College of Mineral and Energy Resources (COMER). This fund was originally established to honor Jim's fellow honorary Board members Lawson Hamilton and Jim Compton, and has since grown to be COMER's largest single source of scholarship funds.



Lawson Hamilton presents a plaque to James C. Justice, Jr. commemorating the longtime service to WVMRA of his father, the late James C. Justice, Sr.

Those who wish to contribute should contact Jim Robinson at the West Virginia University Foundation, Inc., 3168 Collins Ferry Road, P. O. Box 4533, Morgantown, WV 26504, (304) 598-2700, or Royce Watt at the College of Mineral and Energy Resources, P.O. Box 6070, Morgantown, WV 26506, (304) 293-7680.

James C. Justice, Sr. 1924-1993

For long and dedicated service to the coal industry, to the West Virginia Mining & Reclamation Association, and to the State of West Virginia.

As a continuous member of the WVMRA Board of Directors for 23 years, as Chairman in 1974-75, as an innovative mine operator, as a responsible employer, and as an outstanding citizen of the community, Jim Justice contributed immeasurably to the success of the organization, and, thereby, to the standing of the coal industry, and to the prosperity of the State of West Virginia.

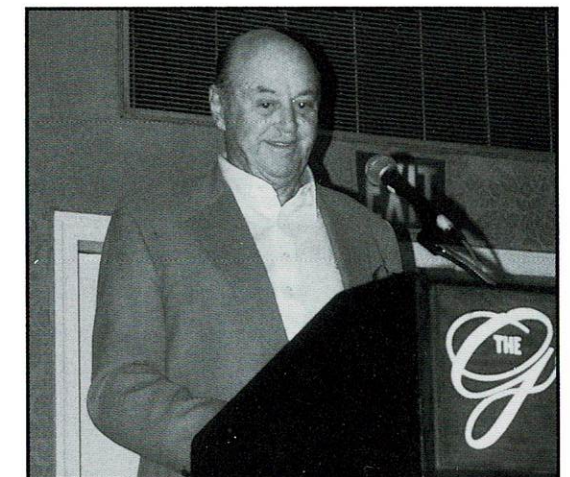


President Ben Greene with 'new' old member Tony Petitto and former Vice President Bill Raney, now president of the West Virginia Coal Association.

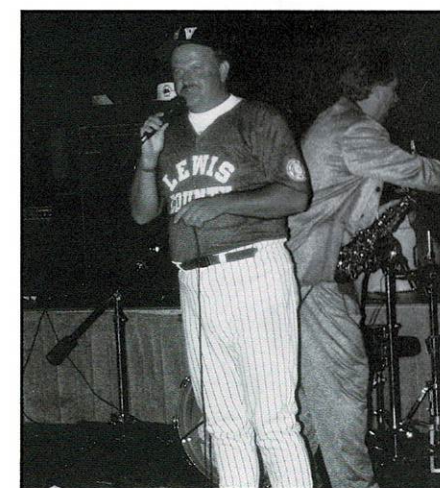


Joe & Charlotte Ison, John & Beverly Sturm.

Scenes from *The Greenbrier*



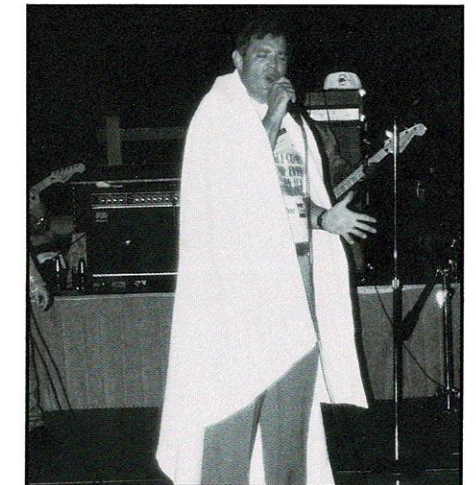
Sam Snead regaled the breakfast crowd with a variety of stories, not all of them about golf.



Outgoing Chairman Gerald Ramsburg took the 'redye' from a national youth baseball tournament in Chicago and made an 'effortless' transition from winning baseball coach to singer.

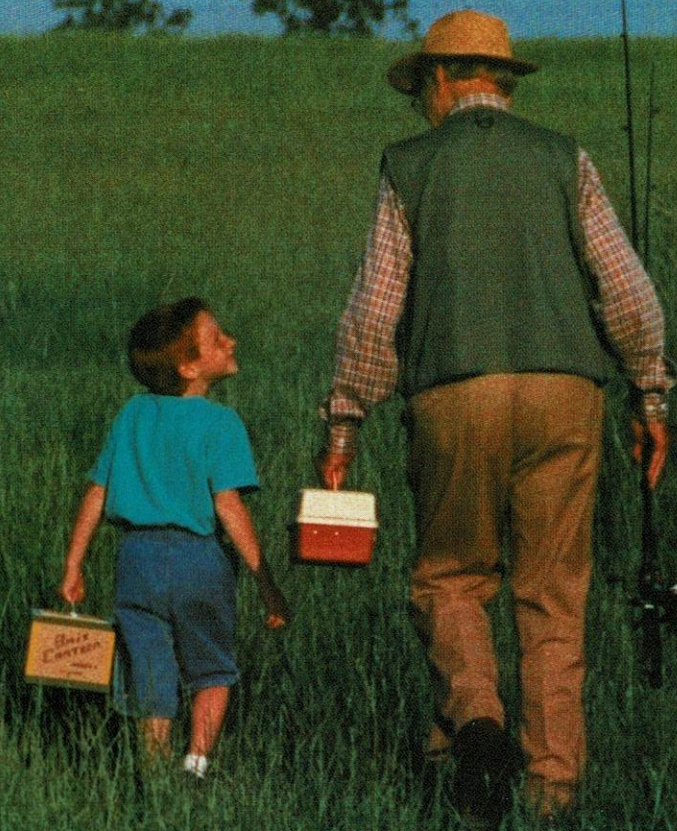


Marshall's Jim Donnan is multi-talented. Nevertheless, he coaches much better than he sings.



Steve Walker, on the other hand, sings great, but reportedly can't coach a lick.

"Are you sure this used
to be a coal mine,
Grandpa?"



This reclamation site at White Flame Energy in Mingo County exemplifies the reasons why Walker Machinery and Caterpillar strongly believe in keeping our environment green. Not only has this site been preserved for future generations, but it was mined successfully and uniquely recognized for its reclamation and safety record.



In the spring of '93 the folks at White Flame Energy, Inc. received a prestigious reclamation award from the West Virginia Mining and Reclamation Association. The

Association said that this mine has shown "extraordinary efforts and results in drainage construction, valley and durable rock fill construction and has gone beyond the call of duty in revegetation plans to maximize the post-mining land use of forest land in accordance with the wishes of the landowner."

At the same time, the Association gave White Flame Energy, Inc. a Mountaineer Guardian Award. These certificates are awarded to coal mines which achieved designated tonnage goals, based on employment, without a fatal accident.



This demonstrates the ability to compete in a tough coal market without compromising safety or the environment... meaning jobs for West Virginians while keeping our state green.

As a West Virginia company, Walker is proud to have provided the Caterpillar equipment used to mine and reclaim this land. We recognize that there is a delicate balance between mining West Virginia coal and preserving the land for future generations. Our goal is for West Virginia's grandchildren to say, "Are you sure this used to be a coal mine, Grandpa?"



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Associate Members' Welcoming Reception

Akers Supply, Inc.	Kanawha Steel & Equipment Company
Almes & Associates, Inc.	Kimberly Industries, Inc.
Amherst Industries, Inc.	L & S Chevrolet-Olds, Inc.
Anderson of West Virginia	Lilly Explosives Company
Appalachian Tire Products, Inc.	Logan & Kanawha Coal Co., Inc.
Austin Powder Company	Marathon LeTourneau Company
Austin Sales, Inc.	Marshall Miller & Associates, Inc.
Beckwith Machinery Company	McGrew Tire Company, Inc.
Beitzel Corporation	Miller & Miller Auctioneers, Inc.
Big Sandy Terminal, Inc.	Mountain Explosives Company
Black Diamond Construction, Inc.	Mt. State Bit Service, Inc.
Bowles Rice McDavid Graff & Love	Nelson Brothers, Inc.
Brackenrich & Associates, Inc.	The Ohio Seed Company
Buckhanan Explosives, Inc.	P & A Engineers & Consultants
Cecil I. Walker Machinery Company	Paul Weir Company
Coal Field Machinery, Inc.	Petroleum Products, Inc.
Crown Hill Equipment, Inc.	Pocahontas Land Corporation
Cummins Cumberland, Inc.	RMI, Ltd.
Driltech, Inc.	Rag Pickers, Inc.
Dyno Nobel Inc.	Reichdrill, Inc.
EIMCO Coal Machinery Inc.	Republic Industries
The Ensign Bickford Company	Rish Equipment Company
Flat Top Insurance Agency	Robinson & McElwee
Forke Brothers	Rudd Equipment Company
GAI Consultants, Inc.	Sammons Surveying, Inc.
G. H. Hensley Industries	Sii Smith International
Gary W. Turner & Company, P.A.	Skelly and Loy, Inc.
General Truck Sales Corporation	Songer Insurance Agency, Inc.
Gilbert Distributing Company	Stagg Engineering Services, Inc.
Green Mountain Company	Sturm Environmental Services, Inc.
Greenbrier Limestone Corporation	Summit Engineering, Inc.
Guttman Oil Company	Triad Engineering, Inc.
Heavy Machines, Inc.	Triangle Surety Agency, Inc.
ICI Explosives USA	Trimble Engineers & Constructors, Inc.
ICI Explosives - West Virginia Division	Trojan Corporation
Ingersoll-Rand Company	Van-American Insurance Company
Jackson & Kelly	Vibra-Tech Engineers, Inc.
John Henry Rock Drills, Inc.	Waters, Warner & Harris
John T. Boyd Company	Western Pocahontas Properties Ltd. Partnership
Johnson Railway Service, Inc.	Worldwide Equipment, Inc.

The Association extends its appreciation for the generosity of the many members who donated prizes for the various events of the 27th Annual Meeting.

Thank You

MONTE CARLO NIGHT

Austin Powder Co. (Herm DeProspero) - Blaster's Clock
 Beckwith Machinery (Dave Trueman) - Appalachian Quilt
 Black Diamond Construction (Bill Casto) - \$100
 Crown Hill Equipment (Chris Supcoe) - VCR
 Cummins Cumberland (Ed Surgeon) - Car Phone + \$50
 Eaglehawk Carbon, Inc. (Dave Brafford) - \$100
 Ingersoll-Rand Co. (Jim Green) - I-R Electric Tools & Knives
 K & P Mining (Mike Perilli) - \$100
 Kanawha Steel & Equipment (Cal Nelson) - Portable Telephone
 Mountain Explosives Co. (John Bussey) - \$50
 Mt. State Bit Service (Paul Laskody, Jr.) - Boom Box
 Nelson Brothers (Wade Bowman) - Portable TV
 Peter's Creek Coal Association (Mike Perilli) - Golf Umbrellas
 Republic Industries (George Sotsky) - Gold Coin
 Rudd Equipment Co. (John Smith) - \$100
 Worldwide Equipment (Mike Null) - Ping Golf Putter
 Vencill Corp. (Delmer & Ernest Vencill) - \$100

FUN RUN

Austin Powder Co. (Herm DeProspero) - \$50
 ICI Explosives USA (Waller Caldwell) - Running Shoes (2 pairs)
 Sturm Environmental Services (John Sturm) - \$50

GOLF TOURNAMENTS

Anderson of West Virginia (Tom Meehan) - \$10,000 hole-in-one
 Beckwith Machinery (Dave Trueman) - \$100
 Cecil I. Walker Machinery Co. (John Williamson) - \$100
 Crown Hill Equipment (Chris Supcoe) - \$100
 Cummins Cumberland (Dave Hibbs) - \$100
 Driltech Inc. (Tim Murphy) - \$100
 DYNOL NOBEL (Tim Zeli) - \$50
 Flat Top Insurance Agency (Ardie McMillion) - \$100
 Gilbert Distributing Co. (Fred Harless) - \$100
 McDonough Caperton Insurance Group (Charlie Morton) - \$100
 Miller & Miller Auctioneers (Bill Flynn) - \$200
 Mountain Explosives Co. (John Kelly) - \$100
 Mt. State Bit Service (Paul Laskody, Jr.) - Blaster's Lamp
 Penn Line Service, Inc. (Larry Roberts) - \$50
 Petroleum Products, Inc. (Tom Taylor) - \$100
 Rish Equipment Co. (Jay Mullen) - \$100
 Rudd Equipment Co. (John Smith) - \$100
 Trimble Engineers & Constructors (Bill Trimble) - \$100
 Union Carbide Corp. (John Rader) - Trophy
 Vencill Corp. (Delmer & Ernest Vencill) - \$100

FISHING TOURNAMENT

ICI Explosives USA (Bruce Wood) - Fishing & Camping Equipment
 Ingersoll-Rand Co. (Jim Green) - \$50
 Mt. State Bit Service (Paul Laskody, Jr.) - \$50
 Nelson Brothers (John Holliday) - \$50
 Rish Equipment Co. (Jay Mullen) - \$50

TRAP TOURNAMENT

Austin Powder (Herm DeProspero) - \$50
 Cecil I. Walker Machinery Co. (John Williamson) - \$100
 Mt. State Bit Service (Paul Laskody, Jr.) - \$50
 Mountain Explosives Company (John Bussey) - \$50
 National Wild Turkey Federation - Wildlife Print
 Nell Jean Enterprises (Warren Hylton) - Vest
 Nelson Brothers (Wade Bowman) - \$50
 Penn Line Service (Larry Roberts) - TBA
 Robinson & McElwee (Joe Price) - Trophies

BOWLING TOURNAMENT

Lilly Explosives Co. (Tim Warden) - Children's Trophies
 Mountain Explosives Co. (John Bussey) - Children's - \$25
 PNC Bank, N.A. (Dale Stein) - Children's - \$50
 Triangle Surety Agency (John Jacobs) - Children's - \$50 Bonds (2)
 Anker Energy Corp. (Bruce Sparks) - \$100
 Austin Powder Co. (Herm DeProspero) - \$50
 Beckwith Machinery (Dave Trueman) - \$50
 Fairfax Fuel (Dave Maynard) - \$100
 Flat Top Insurance Agency (Tom Griffen) - \$50
 Mt. State Bit Service (Paul Laskody, Jr.) - \$50
 Spilman, Thomas, Battle & Klostermeyer - \$50

CHILDREN'S PUTTING TOURNAMENT

Lilly Explosives Co. (Tim Warden) - Trophies
 Mountain Explosives Co. (John Kelly) - \$25
 Triangle Surety Agency (John Jacobs) - \$50 Bonds (2)

TENNIS TOURNAMENTS

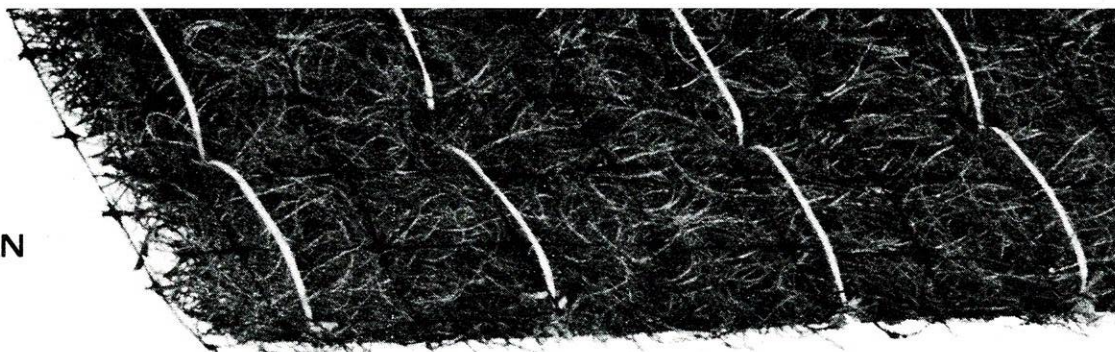
Cecil I. Walker Machinery Co. (John Williamson) - \$100
 Cummins Cumberland (Ed Surgeon) - \$50
 Ingersoll-Rand Co. (Jim Green) - \$50 + Trophy
 Mellon Bank, N.A. (Bob Heuler) - \$100
 Penn Line Service (Larry Roberts) - \$100
 Skelly and Loy (John Gunnett) - \$150
 Sturm Environmental Services (John Sturm) - \$50

NEW CHAIRMAN'S BREAKFAST

Crown Hill Equipment (Chris Supcoe) - \$100
 Evelyn Streets - Painting
 Ingersoll-Rand Co. (Jim Green) - \$100
 Nelson Brothers (Wade Bowman) - \$50

NAME TAG DRAWING

Austin Powder Co. (Herm DeProspero) - \$150
 Crown Hill Equipment (Chris Supcoe) - \$100
 Cummins Cumberland (Ed Surgeon) - Lenox Glassware
 The Greenbrier Hotel - A weekend at The Greenbrier
 Ingersoll-Rand Co. (Jim Green) - \$100
 Lilly Explosives Co. (Tim Warden) - Portable Boom Box/CD Player
 Nelson Brothers (Wade Bowman) - \$50
 Worldwide Equipment (Terry Dotson) - Ping Golf Putter

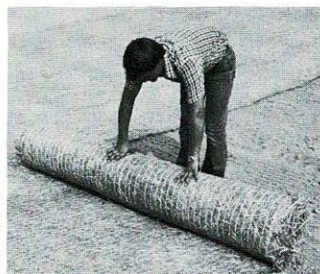


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Control Erosion In Heavy Rains. Conserve Moisture When There Is No Rain.

North American Green offers a variety of Erosion Control Blankets to suit a variety of situations:

Just Roll It On



Starting at the top of the slope to be covered just unroll the Blanket. The Blanket should never be stretched so that contact with the soil can be maintained. Follow the simple instructions included with each roll.

Staple It Down



As you unroll the Blanket, staple it firmly to the ground using North American Green Surelock. Generally one staple per square yard will be sufficient. Under adverse conditions more staples might be required. Staple patterns are illustrated in the installation instructions.

Let Nature Do The Rest



North American Green Erosion Control Blankets create an ideal environment for seed to germinate. Because the Blankets are so well constructed, they help prevent the loss of moisture through evaporation, yet because the Blankets are porous, the ground will accept additional moisture through rainfall.

North American Green Products

\$75	Straw Blanket for moderate runoff 4:1
\$150	Straw Blanket for heavy runoff 3:1
SC150	Straw/Coconut Fiber Blanket for heavy runoff 2:1
SCC225	Straw/Coconut Fiber Blanket with seed for heavy runoff 2:1

C125

100% Coconut Fiber Blanket for extreme conditions and ditches.

P-300

100% Nylon Permanent Ditch Liner

Write or call North American Green for more information on the complete selection of Erosion Control/Revegetation Blankets.

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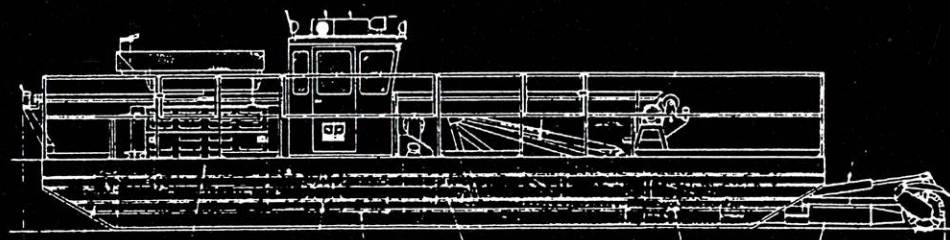


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- Pond can be used on remote sites where access is a problem
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1993



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(304) 296-1783



'Buck's Bunch,' the 'Threepeat' winner of the General Division Company Pride Award.

'Old and new' win Company Pride Awards

"Buck's Bunch" threepeated and DYNOL NOBEL Inc. overpowered a strong field of competition to capture the bronze buckets in the "Company Pride" competition at the Annual Meeting.

A crowd of 500 was rained off of Kate's Mountain at The Greenbrier, but simply redirected their spirit to Colonial Hall for the annual "Coal Miners' Party" midway through the meeting. A good portion of the crowd expressed their company pride with matching shirts, hats and, in the case of Worldwide Equipment, head-to-toe outfits.



'Sheik' Fred Shewey accepts the permanent 'Company Pride' plaque from new Chairman John Bryan.

But it was DYNOL who put together a coalition of blasting distributors to form "Rockbusters," a raucous crowd of 30 or so who appeared with blasting backpacks, balloons, complimentary hats, and somehow managed to squeeze an old time fire engine through the venerable double doors of Colonial Terrace. The judges (a secret panel of qualified experts who live the rest of the year in the Greenbrier bunker) were impressed and "Rockbusters" got the bronze bucket.

The silver bucket, initiated in 1992 to relieve the enormous pressure on the judges, went to Petroleum Products, which made quite an impression with two dozen red-shirted partiers. The equally red-shirted former champions from Austin Powder turned in their usual strong performance. Other outstanding efforts came from Walker Machinery, whose "Jurassic Park" style jerseys had to be individually read to be appreciated, and the dual entry of Ingersoll Rand/Anderson of West Virginia.

The General Division took on a "Battle of the Oil Barons" look. "Buck's Bunch" which has dominated this division lately, did not rest on its laurels. Though firmly entrenched in the coal business, the "Bunch" appeared as "Sheiks," whatever that is. Lawson Hamilton countered by mustering as many grandchildren as he could and giving them a Texas oil look as the "Ford Coal Cowboys (and girls)."

"Buck's Bunch" prevailed when most of the Ford gang had to go to bed early, and the "Company Pride" competition had its first threepeat. In anticipation of next year's event, Lawson and Buck are looking for a little competition and Associate Division contenders are out recruiting.



DYNOL NOBEL wowed the crowd by showing up with its Rockbuster fire engine. DYNOL NOBEL's all out effort earned the Company Pride award in the highly competitive Associate Division.



COMPANY PRIDE - Petroleum Products, Inc.,



COMPANY PRIDE - Cecil I. Walker Machinery Co.



COMPANY PRIDE - Austin Powder Co.



COMPANY PRIDE - Anderson of West Virginia

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Through it all, there's been one insurance agency that has worked alongside the coal industry, from 1897 to today. That agency is Flat Top Insurance. For more than 96 years, Flat Top Insurance has been at the cutting edge of industry change, always available and ready to assist the coal industry as it meets each new challenge.

The specialists at Flat Top Insurance lend valuable assistance in the important reclamation bond requirements and in many other areas of insurance for the coal industry. We invite you to check us out and see for yourself why, for more than 96 years, Flat Top Insurance has been a leader in the insurance field in serving the nation's most abundant and valuable energy source.

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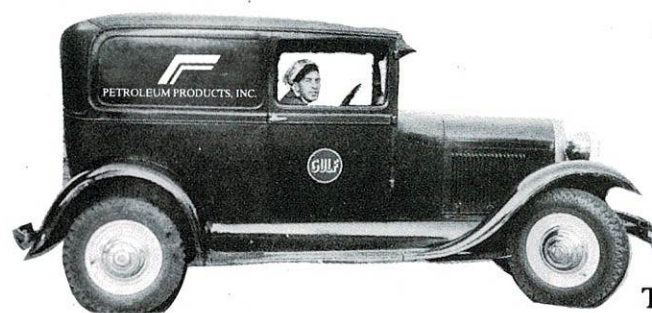
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Our recent Auction in Webster Springs, West Virginia for C.C. Conley Coal/Green International, prompted this owner's response:

'From the signing of the contract to the final settlement there was never a time when Green's interest was not first and foremost. We thank you, Bryan Brooks, Ron McClain and the entire Forke crew for a job well done and a phenomenal sale'

J. Scott Tuel, Equipment Manager
Green International, Inc.

We would like to visit with you about our services!

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Acid Mine Drainage Treatment with the Aquafix System

by Jeff Skousen and Mike Jenkins

Introduction

Mary Ruth Corp. was formed in 1955 by Milford Jenkins. Mary Ruth Corp. has operated surface and deep mine operations in northern West Virginia and Maryland for the past 38 years. In 1972, Mike Jenkins returned from the Air Force to take part in the mining operations and has been working with his father, Milford Jenkins, for the past 21 years. During the 1970's, Mary Ruth Corp. operated as many as seven active mines and a coal preparation plant employing nearly 100 people.

Problem

Several of Mary Ruth's surface mining operations are in the Upper Freeport seam of coal, which often produces acid mine drainage (AMD) upon disturbance in northern West Virginia. Some of Mary Ruth's sites required constant water treatment. In the mid to late 1970's, caustic soda was used to treat the water on these sites. Within a few years, however, it became too costly to use caustic for treating AMD.

Hydrated lime was substituted for caustic soda wherever possible. Lime was a much cheaper chemical to purchase, but application of the lime required a pump to circulate the pond, plus a man to feed lime slowly to the pump for mixing. These two factors made the use of hydrated lime very labor intensive. Also, about 50% of the lime that was applied still did not dissolve or react and ended up on the bottom of the pond. If labor costs could be reduced or eliminated, treating AMD with hydrated lime could reduce chemical treatment costs by 50 to 80%.



Seepage of acid mine drainage from a reclaimed backfill.



Some site preparation is normally required to make/build a level place for the Aquafix Machine to set. It usually straddles the stream.



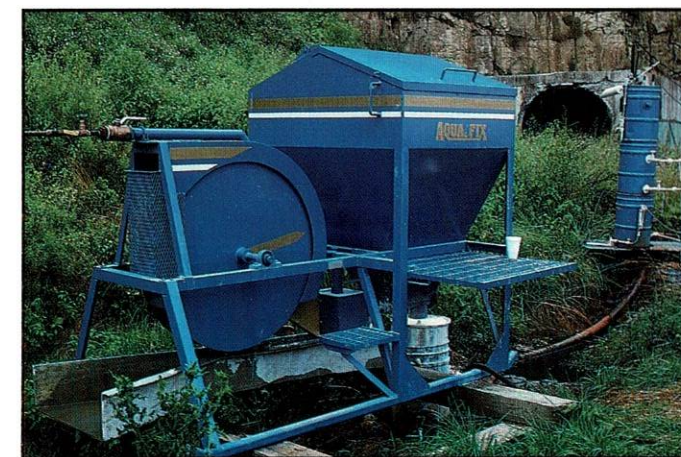
The machine weighs about 900 pounds and can be lifted into place by a tractor with a backhoe or a truck with a hydraulic lift.



The Aquafix Machine is then situated over a fiberglass sluice carrying water beneath the unit.



Water from a pipe is then introduced into the unit to power the water wheel, which then turns a screw feeder in the hopper. Approximately 2000 pounds of pelleted quicklime can be loaded into the hopper.



The Aquafix System requires no electricity and very little maintenance for consistent AMD treatment in remote locations.



This system is also compatible with other chemicals that may be needed for AMD treatment.

Development of the Aquafix Machine

As time went on, it became obvious that if hydrated lime could be introduced to the pond continuously, treatment of the water could be controlled and water quality could be enhanced. Close to 95% of Mary Ruth's sites where AMD treatment was occurring had no power to operate any kind of feeder or mixing system. So, Mike Jenkins decided to use a "water wheel" concept which could be driven by the flowing water itself. Through the efforts of Darwin Ringer (Mary Ruth's first employee in 1955), his son, Robbin Ringer, Milford Jenkins and Mike Jenkins, the first water-powered lime feeder was built in 1980. Hydrated lime was initially used in the machine, but even with several modifications over time, the hydrated lime did not feed continuously without bridging and plugging in the hopper. After approximately one year of working with this original machine, Mary Ruth's water problems lessened due to reclamation and so the "water wheel" machine was placed behind the shop to collect rust.

In 1989, Mary Ruth resumed water treatment. The rusted old lime feeder was dragged out from behind the shop and a pelletized lime material was sought for use in the machine. Pelletized hydrated lime was unavailable, but a pelletized calcium oxide product (pebble quicklime) was. This pebble quicklime material was loaded in the hopper of the "water wheel" and it fed continually, solving the bridging and feeding problems.

Quicklime is highly reactive, economical, easy to handle in 50 pound bags (or can be bought in bulk if necessary) and feeds without sticking. In addition, the AMD sludge generated with quicklime is denser and precipitates quicker than caustic-generated AMD sludge.

Since 1991, the Jenkins' have been manufacturing and selling the Aquafix Machine to coal, clay, and sand mining

Table 1. Treatment costs for treating acid mine drainage on a site in northern West Virginia with ammonia, caustic and pelleted lime with the Aquafix Machine.

Year/Month	Ammonia-\$	Caustic-\$	Lime-\$	Total-\$
1991 Apr	\$ 63	\$5195	\$ 0	\$5258
May	\$ 63	\$1870	\$ 0	\$1933
Jun	\$101	\$2375	\$ 0	\$2376
Jul	\$ 57	\$2047	\$ 0	\$2104
Aug	\$ 88	\$ 903	\$ 0	\$ 991
Sep	\$ 6	\$ 148	\$ 0	\$ 154
Oct	\$ 13	\$ 0	\$ 0	\$ 13
Nov	\$ 69	\$ 0	\$ 0	\$ 69
Dec	\$269	\$3740	\$ 0	\$4009
1992 Jan	\$ 13	\$2635	\$ 0	\$2648
				\$19,547
1992 Apr	\$ 32	\$ 0	\$862	\$ 894
May	\$ 82	\$ 96	\$578	\$ 756
Jun	\$ 13	\$ 62	\$445	\$ 520
Jul	\$ 19	\$ 44	\$387	\$ 450
Aug	\$ 95	\$ 57	\$560	\$ 712
Sep	\$ 0	\$ 74	\$139	\$ 213
Oct	\$ 13	\$ 151	\$ 0	\$ 163
Nov	\$ 13	\$ 82	\$ 0	\$ 95
Dec	\$334	\$1560	\$540	\$2434
1993 Jan	\$126	\$ 564	\$473	\$1163
				\$7400
				62%

Table 2. Average monthly costs for caustic vs lime for treating AMD from three deep mines in Kentucky.

Site - Year	Caustic	Lime	Total	Difference
Site 1 - 1991	\$2600	\$ 0	\$2600	
- 1992	\$ 0	\$726	\$ 726	72%
Site 2 - 1991	\$2080	\$ 0	\$2080	
- 1992	\$ 0	\$605	\$ 605	71%
Site 3 - 1991	\$2080	\$ 0	\$2080	
- 1992	\$ 0	\$484	\$ 484	77%

Table 3. Average monthly costs for treating AMD on sites in Preston and Monongalia counties.

Site - Year	Ammonia	Soda Ash	Lime	Total	Difference
Site 1 - 1990	\$ 0	\$ 900	\$ 0	\$ 900	
- 1991	\$ 0	\$ 0	\$160	\$ 160	82%
Site 2 - 1990	\$ 0	\$5000	\$ 0	\$5000	
- 1991	\$ 0	\$ 0	\$600	\$ 600	88%
Site 3 - 1990	\$2400	\$ 0	\$ 0	\$2400	
- 1991	\$ 800	\$ 0	\$560	\$1360	43%

companies, with machines set up in West Virginia, Maryland, Virginia, Tennessee, Louisiana, Pennsylvania, Ohio, Kentucky, Indiana, Colorado and Montana. Favorable reports are received from virtually all users. Tables 1-3 document treatment cost savings from several companies using the Aquafix Machine.

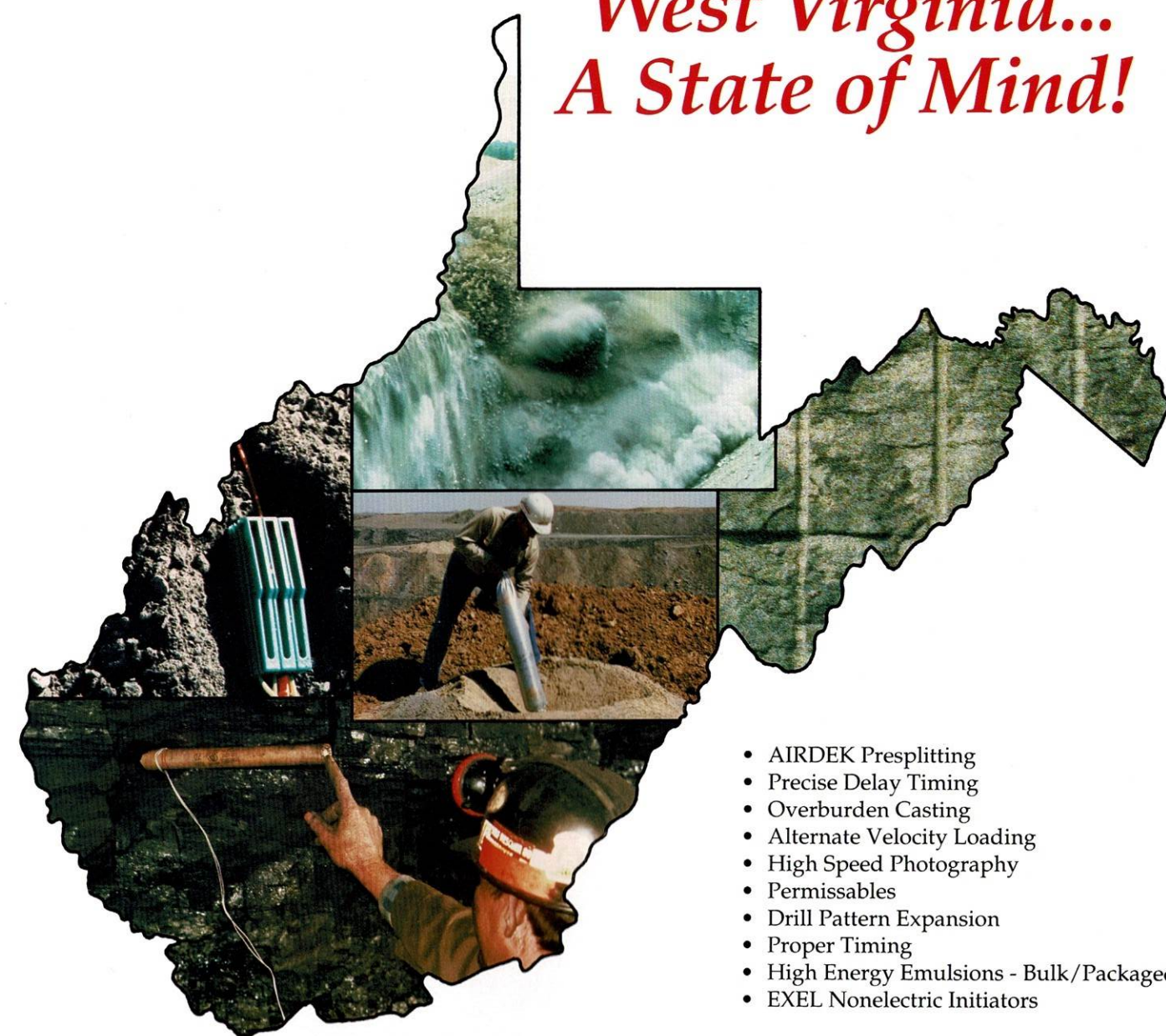
One operator in northern West Virginia calculated the Aquafix unit paid for itself in just 105 days of operation at their site. This calculation included the cost of the machine, labor, installation, and all costs related to using pelleted quicklime (purchasing and transportation from Germany Valley). Caustic soda was used previously to treat an average flow of 25 gpm and 1100 mg/l of acidity at a cost of \$245 per day, or about \$80,000 per year. With the Aquafix System, the same water was treated at a cost of about \$75 per day or about \$28,000 per year, a cost savings of about 70%.

To estimate the potential treatment cost of using pelleted quicklime on your site, experience shows that two pounds of quicklime (CaO) neutralizes the same acidity as one gallon of 20% caustic (NaOH), or one pound of ammonia. Based on 1993 prices, chemical costs are 5-7¢ per pound for quicklime in northern West Virginia (10¢ per pound in southern West Virginia), 50-60¢ per gallon for 20% caustic and 24-28¢ per pound for ammonia. These estimates are similar to the costs shown in Tables 1-3. However, each site is different and titration tests should be conducted to determine the right chemical for each acid mine drainage source.

Conclusion

On sites where the Aquafix Machine has been used, companies have realized a AMD treatment cost reduction of about 50 to 80%. The Aquafix Treatment System may not be suitable for every site because of site constraints, water flows, or water chemistry. However, on sites where it has been used, operators can expect similar cost savings.

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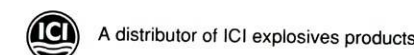


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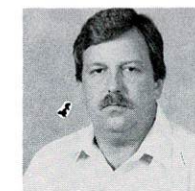
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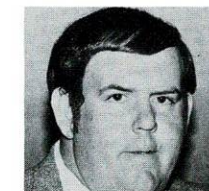
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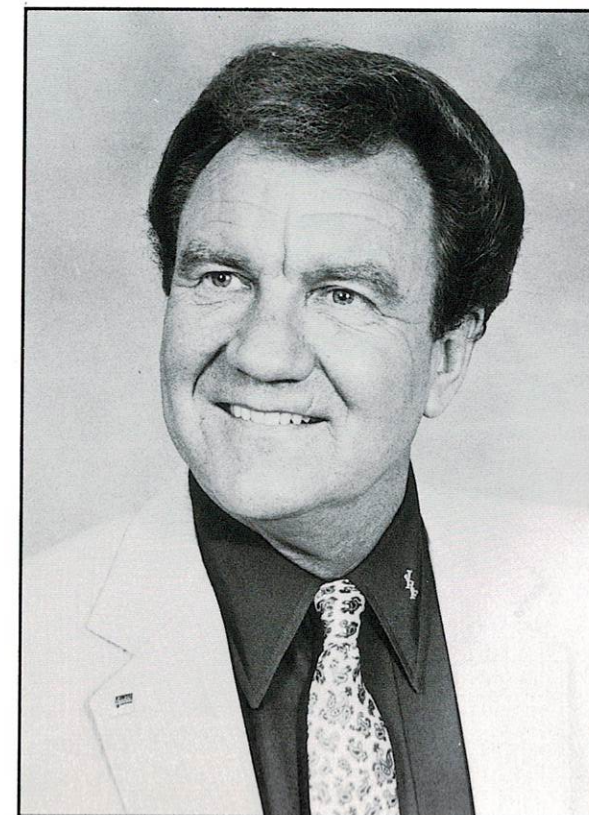


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Association Notebook

WVMRA mourns the loss of Jack Fairchild



Jack R. Fairchild

Jack R. Fairchild, Chairman and Chief Executive Officer of Fairchild International, died on July 27 after a courageous battle with cancer. Fairchild and his wife, Myrleen founded the company in 1965. They worked together over the past 28 years to build Fairchild International, based in Glen Lyn, VA, into the world's largest independently owned mining equipment company.

Jack played an active role in numerous coal industry associations. He served on the Board of Directors of the West Virginia Mining & Reclamation Association, the West Virginia Manufacturing Association, Bituminous Coal Research, Mining and Reclamation Council of America, Kentucky Coal Association, the West Virginia Coal Commission, National Independent Coal Operators Association and the President's Coal Council. Jack was also a member of the American Mining Congress, West Virginia Coal Mine Institute, West Virginia Roundtable, West Virginia Coal Association, National Coal Council and American Coal Foundation.

Jack also was active in community affairs, serving on the Board of Directors of the Bank of Raleigh and Flat Top Lake Association.

Fairchild International is recognized worldwide as leaders in thin seam continuous mining system technology. They design and manufacture a full range of continuous miners, continuous haulage, lo-low belt systems, battery powered scoops and roof drills.

Fairchild's wife and three sons have worked closely with him for many years and will carry on his legacy of strength.

"He was a strong-willed person, a motivator and a fighter," said his wife Myrleen. "He taught us to be strong in tough times, but most of all, he shared with us a vision for the future and the path we need to follow to get there."

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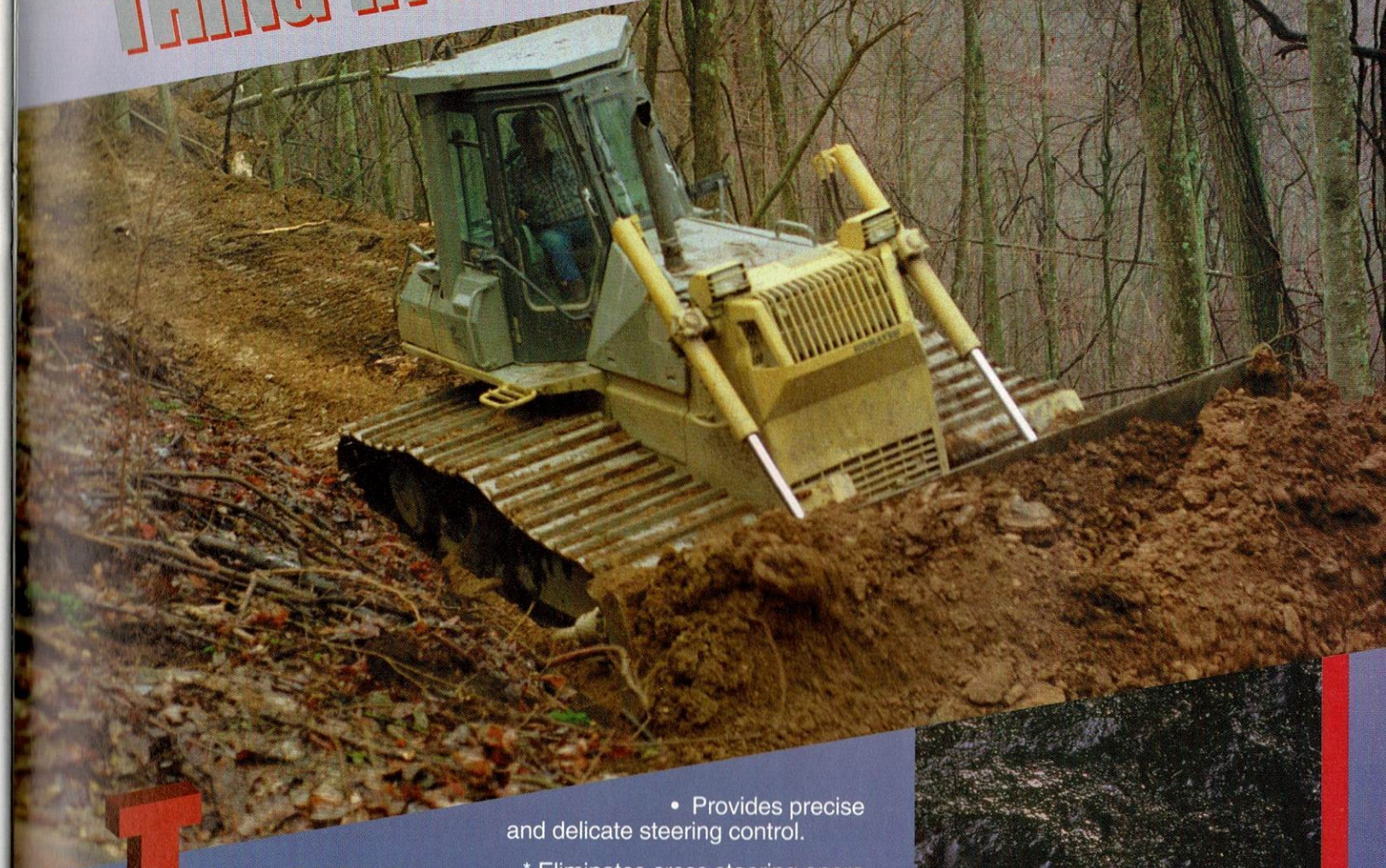
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