

# Crandall mine opens 1,450 foot shaft

HELPER — Miners have taken their first elevator ride down the new intake shaft at Price River Coal Co.'s Crandall Canyon Mine, located north of Helper and west of U.S. 6.

The shaft is 26 feet in diameter and reaches to a depth of 1,450 feet. It connects the surface with seams of coal called the Sub-3 Seam, A Seam and D Seam. The \$14 million shaft project started in the summer of 1981.

A spokesman for American Electric Power Service Corp., Lancaster, Pa., the mine's operators, said the new shaft gives access to 31 million tons of coal in the Sub-3 Seam, plus 15 million and 14 million tons in the A and D

seams, respectively.

"A new 20-foot diameter return shaft, sunk to a depth of 1,444 feet, has also been completed in Crandall Canyon," said the spokesman. The new shafts were designed to extend the life of the mining operations by at least 30 years.

Eventually, they are to provide improved ventilation for the operation and reduce travel time for employees to reach active mining sections.

Price River Coal is a mining subsidiary of the American Electric Power System, which terms itself "the nation's largest consumer of coal."

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## Test helps farmers spot spud bruises

PARMA, Idaho (AP) — Idaho potato farmers now have a quick way to find out whether harvesting and handling equipment is bruising their spuds.

The test will be a major breakthrough for the potato industry, said University of Idaho plant pathologist Gary Beaver, who adapted the process.

"It just amazes me that somebody else hasn't done this before," Beaver said. "It's so simple and it seems to work so well."

The test involves peeling a potato and placing it in a solution of tetrastannic chloride, available through scientific chemical supply houses. Within 10 to 45 seconds, bruised spots are revealed as pink areas on potatoes.

The stain highlights the bruised areas on the potato before the normal blackening occurs. The more severe the bruise, the more quickly it shows.

The same solution has been used for some time by the citrus industry to determine the presence of bruises, but never by potato growers, Beaver said.

The only way spud farmers previously could determine whether equipment was causing blackspot bruises was to set samples aside for two days before peeling and evaluating.

"By the time you knew for sure, you could be in a different field, under different conditions, and the bruise would be different," Beaver said. "There was no way of making rapid adjustments in your equipment."

Beaver and technical aide Mary Devoy began developing the test in February at the University's Northwest Idaho Research and Extension Center in Parma.

## Herd management with computers

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# GET EVEN

# Mountain States looking beyond cyclical oil, coal as it rebuilds for future

As Mountain States Resources rebuilds for the future, the 15-year-old oil and coal company is looking at other areas of business besides the cyclical oil and coal business, president Ray H. Albrechtsen said.

Mountain States, which has suffered along with most oil and gas companies of late, has completed an agreement with the private MARMAC Corp., Cypress, Calif., for the development and financing of Mountain States' energy properties and the examination of short-term, non-energy ventures.

Albrechtsen said MARMAC offers outstanding expertise to Mountain States, including valuable experience in oil and gas production and pipeline transmission in



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the city of Los Angeles where Mountain States has an oil and gas prospect known as L.A. Highland Project.

The prospect, which has been cored and logged, is estimated by geologists to contain substantial potential recoverable oil reserves and is surrounded by three other major producing fields, he said.

"MARMAC has already done considerable work on the design and engineering of the production facility for the potential Highland Project and will also be involved in arranging the financing," Albrechtsen said. "The agreement calls for MARMAC to assist with the short-term planning and financing of Mountain States near-term objectives to increase cash flow."

MARMAC, he said, is a diversified engineering and development company engaged in engineering and construction of pipelines, production facilities, fiber-optics telecommunications and alternative-energy power plants.

Mountain States booked up with MARMAC after seeking approval from Los Angeles for its Highland Project, Albrechtsen said. "The city administration recommended them to us and we began working with them 18 months ago."

No drilling has yet begun on the Wilshire Boulevard property just south of the Great Salt Lake Field drilled in 1908 by a group of Salt Lake people. Albrechtsen said the Utah discovery has produced about 100 million barrels so far.

He expects Mountain States will drill 20-25 wells on its property, but the permit process takes a long time

and he figures it will take at least two more years before the first hole is started.

Mountain States has an interest in eight producing wells in the Uintah Basin and is a partner in a \$7.5 million deep test well in the Altamont-Bluebell Field which will be the deepest well drilled in the field.

The company was originally formed in 1969 to develop coal properties in Sevier County, but it got caught in the 1972 coal-leasing moratorium in which the federal government denied coal leases for a four-year period. Although Mountain States was one of the first companies to receive a lease in 1976, the coal business has turned soft and development was dropped.

"The coal business swings with the oil business and by the time we were ready to go, the coal industry had turned down and there was an overproduction of oil. But it's not unlike the industry to bounce back," Albrechtsen said.

"We're starting to see the oil business pick up and the oil glut lessen. Usually the coal industry follows about a year or year and a half later."

He said Mountain States is looking at compatible industries that don't have the swings of coal and oil, such as cogeneration.

On a long-term basis, MARMAC will provide its expertise in the evaluation of Mountain States' assets with the idea of maximizing and translating them into future growth areas.

The agreement calls for MARMAC and its associates to receive up to 1 million shares of restricted common stock to be issued on a performance basis to coincide with MARMAC's completion of its work under three separate phases of planning and obtaining financing for Mountain States.

Mountain States recently reached a settlement between it and Ute Energy Co. of Tulsa, Okla., that dismisses suits filed by it and Ute more than two years ago over a sublease agreement on 14,000 acres of Mountain States coal properties for which it received \$4.9 million in lease payments.

Ute has reassigned all of its interests in the coal leases to Mountain States and Mountain States has filed the reassignment application with the federal government. Albrechtsen said the company has received notification from the government that the reassignments have been approved and the leases are in good standing.

For fiscal 1983, Mountain States had revenues of \$753,021, down from \$1.3 million in the previous year, primarily because of a drop in the coal sublease payment. The company, with some 15 million shares outstanding, had a loss of \$242,775 for fiscal 1983.

## U.S. hoping foreign investors will help ease deficit burden