

# FROM MONROEVILLE TO THE SUDAN:

## INNOVATION WORKS HELPS CARDINAL RESOURCES GROW A BUSINESS TO DELIVER PORTABLE WATER PURIFICATION DEVICES TO UNDEVELOPED COUNTRIES

BY TIM HAYES, CONTRIBUTING WRITER



**S**olving the global problem of a lack of clean water across the undeveloped world - all from a single unassuming site in Monroeville. Sound farfetched? Not at all, thanks to Cardinal Resources.

And the fact that Cardinal Resources is poised for long-term growth is thanks to a recently implemented program from Innovation Works (IW) that provides management assistance and commercialization preparation to promising technology companies outside its traditional investment portfolio.

### GROWING A BUSINESS

"When they came to Innovation Works, Cardinal Resources was an environmental consulting firm with a product concept positioned for growth potential," said Stefanie Lattner, the IW Portfolio Executive who has worked with the Monroeville-based firm. "They developed the design of the system after identifying the unmet need. Their water purification idea was unique. It didn't require a utility company infrastructure, and was portable. It performs recycling and refiltering of water from sources easily found in undeveloped countries.

"The question became: How do you grow a business with this technology and how compelling is the proposed solution?" Lattner recalled.

The Cardinal Resources integrated system performs filtration and disinfection using salt. In this fairly straightforward system, the uniqueness comes in two features. First, it uses solar power, which contributes to the second unique feature - the portable system comes in pre-assembled components and is completely self-contained at the point of operation.

"It's a very simple idea that we have patented," noted Kevin Jones of Cardinal Resources. "The elegance comes in how the system meets this critical need."

But even beyond elegance, Jones said his company's system serves a higher purpose.

"Look at the human statistics," he said. "Twenty percent of the world's population has no clean

water. A child dies every six seconds as a result. This is a chance to help the world, and have significant global impact by providing clean water in remote locations while building a great company.

"Our solar-powered treatment system for drinking water can go anywhere in the world," Jones explained. "It's a high-tech solution for low-tech environments."

### DEVELOPING A PLAN

All true. It's a long way from Monroeville to the Sudan, however. Which meant Cardinal Resources had a lot of work to do, attracting investors and growing its capabilities to meet this pent-up global demand for its water treatment system. That's where IW entered the picture.

"There are certain basic challenges entrepreneurs face," said Terri Glueck, IW Communications Director. "Developing a business plan, validating the technology, arranging financing, serving beta customers, commercializing the product and entering the marketplace. All the things IW has traditionally helped its portfolio companies formulate and implement, we now are expanding to companies getting ready for investment, and companies we see as having high potential.

"This wider reach by IW is good for building the technology landscape in this region," said Glueck. "The reason being that business assistance has as much value to entrepreneurs as financial investment. IW's internal expertise and external referral sources can serve these high-potential technology companies well."

Jones would agree with that sentiment.

"In talking with IW about our system, they helped us identify what pieces of information investors need to evaluate," said Jones. "We weren't getting access to potential investors, and IW helped with that, too. They also perform what I'll call a cheerleading role. That keeps us going and provides resources beyond our expertise."

"We kept the focus on defining appropriate market segments, determining the value of each, deciding how to target customers within each and

**Discussing Cardinal Resources' growth plan are (from left to right) V. Susanne Cook, Cohen & Grigsby Attorney at Law; Kevin Jones, President of Cardinal Resources; and Stefanie Lattner, Innovation Works Portfolio Executive.**

figuring out the sales cycle between segments," said Lattner, describing her tasks with Cardinal Resources. "Once industrial customers in undeveloped countries were identified as the best entry point, the company's strategic plan began to crystallize."

### OPENING DOORS

Cardinal Resources was selected to present at the Pittsburgh Angel Fair, and received numerous follow-up calls from interested investors in Chicago, Washington, D.C. and Pittsburgh. The company also has been asked to present at Bluetree Angels as a result of the Angel Fair.

"All of this couldn't have been done without Innovation Works," Jones said. "A lot of it is how you tell the story, and they helped us to identify the critical elements of our business and communicate that clearly to the investment community."

IW will stay in the picture with Cardinal Resources "as long as the company finds value in working with us," according to Lattner. "They are becoming a very interesting investment target. As they grow, they will have to seek venture capital funding."

"There are good companies like Cardinal Resources that can be even better with our wealth of business experience," said Glueck. "There are more high-quality companies in our region than IW has been able to reach in the past; the requests for our assistance are up about 50 percent from two years ago.

"We're seeing an increase in both the quantity of requests and the quality of technologies and business plans, but our resources to fund these companies are not increasing at the same pace. To provide meaningful assistance to more of these high potential companies, we're providing the business expertise they need to grow." ●

**Reality Tech Ventures (TV) is a special editorial series detailing how Innovation Works assists promising technology companies in southwestern Pennsylvania. Look for Reality TV in every other issue of TEQ in 2006.**