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Growth a specialty for chancellor Massengale

By Patti Gallagher

Martin Massengale is a man well acquainted with growth.

Massengale, whose appointment as the new UNL chancellor is awaiting approval of the NU Board of Regents, held five positions in 17½ years at the University of Arizona.

With each move up the ladder, Massengale's audience and responsibilities grew.

Daily Nebraskan Photo
UNL chancellor-designate Martin Massengale

His research at Arizona, too, involved growth. His specialty in agronomy was water use and food-for-plants manufacturing.

When he moves two doors down the hall into the chancellor's office June 1, Massengale will be accountables to his broadest audience ever.

Growth will be vital then. His immediate task will be to add the total Lincoln campus perspective to that of the Institute of Agricluture and Natural Resources, where he is now vice chancellor.

Monday, just 10 days after his appointment, Massengale defined and discussed that new audience.

He said that in addition to students, the university must serve the needs of at least two other groups.

"In addition to our traditional on-campus students, we serve adults through continuing education, we serve people across the state through extension services. I have to work with all of those."

Transition work

He admits he has a lot of transition work to do in switching from vice chancellor to chancellor.

"One of the things I hope to do before I officially take over is familiarize myself with all parts of the university. I believe if I'm going to represent them I need to know as I can about them."

But Massengale said he has the advantage of being an "in-house" appointee. Since he has been at UNL for five years and he knows most of the the administrators he will be working with.

"Hopefully, we'll be able to be more right on, and lose minimum momentum in the change," he said.

Massengale declined to identify the areas of the UNL campus he believes are most important right now.

"It behooves me to get more information before I make a decision," he said.

Getting more information is his style of dealing with problems, the 47-year-old Massengale said.

There are different viewpoints and I think we need to see all of them before making a decision that's in the best interest of the university," he said.

According to various deans interviewed last week, Massengale has the ability to consider all sides of an issue objectively, but he won't stall when making important decisions. His assessment of himself is similar.

"I think I'm characterized by an open mind, and objective mind, so I don't think there will be any biases from my previous experience with the university," he said. "I've always felt I could work in the position that I was in."

An investment

Massengale said he views the university as an investment in the future.

"It is an investment because it's training our future leaders, investing in research that we will be using in Nebraska."

He added that the importance of research and resources should be conveyed to the citizens of the state.

"Frequently, I think the people don't appreciate the resource that the university actually is," he said. "If you want information on any item, whether it be in art, literature, engineering or agriculture, why you can most always go to the university and get that."

Although at least one dean reportedly resigned, Massengale said it is premature to worry about resignations. Those decisions will be made after he assumes his position.

Ned Hedges, vice chancellor for academic affairs, submitted a letter offering to resign, Massengale said. It has not been finalized.

Massengale was born and raised in Kentucky. He received his bachelor's degree there, and earned a master's and doctorate degrees from the University of Wisconsin.

After two years in the military, Massengale began at Arizona in 1958. He was an assistant professor of agronomy, associate professor, head of the agronomy department, associate dean, and then director of agriculture.

He came to UNL in 1978 as vice chancellor.

Massengale said his salary will be determined by the regents at their April 18 meeting, along with approval of his appointment. He currently earns $55,200 a year. Former chanceloor Roy Young made $59,500.

The soon-to-be chancellor and his wife, Ruth, have two children, Alan 15, and Jennifer, 11.

Crawford uranium site may use 'in-situ' mining

By Bob Glissmann

Editor's note: This is the second story in a three-part series on the proposed uranium mining in northwest Nebraska. Wednesday's Daily Nebraskan will feature a section on the reactions of people in the Crawford area that were gathered by Daily Nebraskan reporters.

With about 25 "in-situ" uranium mining sites in operation across the United States, and hardly any of them in use for 10 years, the "in-situ" method isn't the traditional method of uranium extraction. But mining company officials say it may be the preferred method of the future and the one that will be used in Nebraska.

Amoco Minerals Co. Uranium Exploration Manager John Squyres said from his Englewood, Colo. office that "in-situ" (Latin for "in place") mining is "a much-favored technique" over other methods such as strip mining, strope (horizontal shaft) or vertical shaft mining.

Squyres said the Nebraska uranium deposit, located near Crawford, would be too expensive to mine underground and too deep to mine by strip mining.

Paul Roberts, director of the Nebraska Oil and Gas Commission, which presently regulates test drilling for uranium, said the uranium ore bodies vary in depth from as shallow as 300 feet below ground to more than 1,000 feet.

Cleanest method

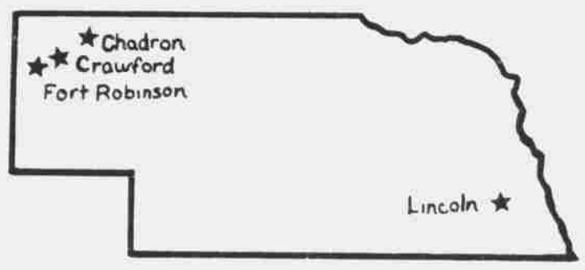
Squyres said "in-situ" is by far the cleanest method, and the method "vastly preferred" by landowners whose land is used for uranium mining.

The process involves several steps, according to Squyres and other experts.

After landowners lease the mineral rights to their land to the uranium companies, the companies may begin test drilling. At first, the test holes are usually a mile or two apart, Roberts said. He said that last year in northwestern Nebraska more than 200 test holes were drilled by uranium companies.

The test-drilling process takes about a day, Roberts said. Three or four company employees on a truck-mounted rig oversee the drilling, he said, and a company geologist analyzes the extracted samples in the field. Samples, or "cuttings," are brought up from the ground by a bentonite (soil cement) and water solution that is forced down the drill pipe, which is four to five inches in diameter, Roberts said. The solution helps seal the test hole immediately after it is drilled. Background radiation levels in and around the test hole are then measured, he said.

Later, after the cuttings have been analyzed, test holes might be placed closer together to determine the areas of



highest uranium concentration, Roberts said.

The testing process takes two or three years, Roberts said, and actual mining won't occur until the testing is completed.

The commercial mining process takes awhile to develop, Squyres said.

Three years to prepare

"The full cycle typically takes three years," he said.

After an ion exchange plant is built near the mining site, wells are dug in a "five spot" pattern, Roberts said.

Wells are placed at the four corners of a 150-200 square foot area, with injector wells placed at the four corners and a production well at the center of the square. Water is containing an oxidizing agent and a carbonate is injected into the four corner wells. The water is pumped from a production well at a greater rate than it is injected to insure an overall pumping effect, Squyres said. Otherwise, the solution containing the uranium could leak out and spread to other levels, possibly contaminating ground water, he said.

Only 20 to 30 gallons of water per minute are lost, Squyres said, out of 500 to 600 total gallons per minute that are circulated.

The carbonate in the solution dissolves the uranium and the uranium-rich solution is forced up the well. The solution is then piped to the plant and is run through an ion exchanger, and the uranium is precipitated out. The water is then reconditioned and recharged with solution and sent back to the well site to be used again, Squyres said.

"The precipitate is dried into yellow cake, or is left in solution and shipped to a processing plant," Squyres said.

Drilling site monitored

The minit site is monitored by wells no more than 400 feet from the drilling site, Squyres said.

"If there is an excursion (leak of radioactive solution), we'll pick it up," Squyres said, explaining that if contamination occurs, the site must be abandoned until uranium traces disappear.

"After it's no longer economical to mine, we continue to circulate fresh water from pump (injection) wells until all traces of uranium are out and restored to original state," Squyres said.

That process takes from a year to 18 months, Squyres said. When the process is complete, the hole is plugged with cement or the same kind of bentonite-water mud used to plug test drills.

The cement plugs are 50 feet thick at the base of the hole and 50 feet thick on top of the hole, Squyres said.

Ralph Knode, a geologist for Wyoming Fuel, said it is to the companies' advantage to properly plug the holes.

"If you don't plug them properly, you have to go back some day and find all those old holes and plug them. That will cost you a lot more in four or five years than it will now."

"We might have 30 or so acres under active leaching (operation)," Squyres said. "We're also preparing 30 acres and restoring 30 acres simultaneously," he said.

1,000 acres affected

Over the life of the operation one might affect 1,000 acres, he said.

A 1,000-foot test frill costs $1,500 to $2,500, while a 1,000-foot well, fully equipped with the pipe and the casing costs $5,000 to $7,000, Squyres said.

"These are ballpark figures, of course," he said. "A company may drill 200 to 300 of these, so it's a fairly expensive venture," Squyres said.

"I think damage can be minimized," Squyres said. "The net benefits will greatly exceed the damage done – and if we do (cause damage) we'll be liable."

"We will not pollute such a large area," he said. "There can be some bad effects (on the site) but not a regional effect."

"I wouldn't say it's 100 percent bug free," Squyres said of the "in-situ" method, "But there are very few difficulties with it."

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