



The ART of Finding Oil

A Voyager drilling rig.

Small independents digging deeper to build domestic supply

by michelle groleau engel '97

In 1920, the chief geologist of the United States Geological Survey predicted that domestic oil and gas supplies would run out in less than 20 years if annual oil production ever exceeded 450 million barrels. Eighty years later, annual oil production worldwide is approximately 2 billion barrels, and remaining oil reserves are expected to last 70-80 years.

Jim Kreutzfeld '79, president of independent oil and gas company Voyager Exploration, can help stretch that supply even further.

Voyager, located in Denver, supplies crude oil to refineries, where it is turned into products like gasoline, diesel fuel and jet fuel. They also do some processing of natural gas, which is supplied to pipeline companies and eventually ends up fueling our homes.

Jim co-founded the company 10 years ago, when a slump came along and changed his job situation.

"I got laid off," said Jim. "The industry was suffering and there were no jobs available. I wanted to stay in the gas and oil industry, so my partner and I founded Voyager Exploration."

Today, the company that they started from scratch has come a long way. Voyager now operates six gas and oil fields, and is one of four major suppliers in northwest Wyoming, where the company has a field office.

"We're actually a real company now," said Jim. "Along the way we've been able to employ a lot of people."

After graduating from Adrian with a bachelor's of science degree in earth science and mathematics, Jim earned a master's degree from the University of Toledo in geology. He worked for Texaco for nine years, where he served as the head of their Rockies exploration group, developing oil and gas assets in the Rocky Mountain area for the company. Jim then spent four years as vice president of exploration for Basin Exploration, an independent oil and gas company that eventually went public. He worked at Basin for four years before co-founding Voyager.

Throughout his career, Jim has found great value in the liberal arts education he received at Adrian. As president of Voyager, he is not only responsible for the geological side of run-

ning the company, such as identifying new oil and gas opportunities, but also the business side, such as overseeing company finances and coordinating contracts with oil and gas distributors.

“My time at Adrian was a positive experience for me,” said Jim. “A liberal arts education is important. It gave me a good, broad-based educational foundation to build on.

“Not only did it help me to move forward in geology,” Jim added, “but also in other areas of running a business. I’ve also had to be able to interact with people in other disciplines to be able to come to an end product.”

This is one of the only careers where you are, in essence, treasure hunting.

Over the years, Jim has come to believe that his Adrian education gave him an edge over colleagues who earned their degrees at more specialized schools.

“I’ve been exposed to a lot of professionals in my career,” Jim said, “and I believe that people with liberal arts degrees are ahead of their colleagues with more specific degrees because we have the ability to look at things from a broader perspective.”

At Voyager, Jim is constantly learning new technologies and exploring new ways to recover gas and oil. Using the new technology, Voyager has been able to resurrect wells that were thought to be tapped out, and has also found new drilling locations.

Even the geological side of his work at Voyager requires more than just knowledge of geology.

“Deciding where to drill is as much an art as it is a science,” said Jim. “The goal is to take available data from wells that have already been drilled, the surface geology, and geophysical data, and then construct a three-dimensional image of the reservoirs and potential reservoirs in the subsurface.

“There is a lot of art associated with the construction of these maps,” added Jim, “because the wells are typically spaced very far apart. It’s like going into your backyard, taking a picture straight down at the ground, driving several miles

and taking another picture straight down, then trying to draw everything in between the two pictures to recreate the landscape.”

Once a productive field is found, the successes are integrated into the mapping and the success rate of subsequent wells increases.

“The goal is to learn something new from each well that is drilled and completed,” said Jim, “then do a better job selecting the next drilling location, and doing a better job drilling, completing and producing the next well.

“There is a lot of trial and error with each oil and gas operation,” he added, “because you are trying to produce oil and gas from a zone that you can’t see which is 5,000-20,000 feet below the surface of the ground, and usually under a fair amount of pressure. This is one of the only careers where you are, in essence, treasure hunting.”

Independent companies like Voyager have a significant impact on the current energy situation.

“All the major gas and oil companies have essentially abandoned the lower 48 for gas and oil exploration and development,” said Jim, “so domestic development of oil and gas reserves by the independent companies is critical to sustaining domestic oil and gas production.

“Another way independent companies like Voyager impact our energy supply is by working with service companies and other independents to develop new technologies which improve oil and gas recoveries from new wells and old fields,” added Jim. “When new technology is developed, it can be used worldwide to benefit all producers.”

Small, independent operators like Voyager have historically made more than half of all major oil and gas discoveries. After these discoveries are defined, the large companies typically buy out the independents and/or the fields. So as the health of these domestic independents improves with rising gas and oil prices, more significant domestic oil and gas discoveries may be made, which will extend the life of domestic oil and gas reserves.

“Don’t be surprised if, 25 years from now, the estimated remaining world oil reserves is still a 70- to 80-year supply,” said Jim.

Jim resides in Littleton, Colo., with his wife Roberta and their daughter Christine.



Jim Kreutzfeld '79 is president of independent oil and gas company Voyager Exploration, and uses his AC education to help him find oil out West. L to R: Jim standing atop an inlet gas compressor at a new gas plant in northwestern Wyoming, standing next to his plane, and posing beside a new well.