

STEM SPOTLIGHT

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Q How did you select your college major?

A I was always fascinated with the sciences and enjoyed collecting/tumbling rocks as a child. I was determined not to work behind a desk for a career and always loved the outdoors. Geology seemed to be a good fit.



Q What was the biggest influence in your selection of major/ career?

A I would have to say my college advisor. I was originally interested in pursuing biology and a career in wildlife conservation; however, she convinced me that other science programs had better career opportunities. Geologists at the time were finding work in the oil and gas industry along the Gulf Coast and it seemed to be somewhat in alignment with my interests in science and working outdoors. She encouraged me to take a physical geology course after which, I was more or less hooked.

Q If you could go back to high school and select any elective course to take that would have better prepared you for college, what would it be?

A Expressing oneself clearly is so important in any line of work and in the sciences/technical fields. I believe we tend to

take it for granted and often times we assume the data will “speak for itself.” However, in our industry there is a lot of effort and expense in the data collecting and we’re commonly communicating to a non-technical audience so we have to provide a narrative that is as succinct and understandable as possible. Sometimes it’s tricky, especially with messy or ambiguous data. I found this challenging at the start of my career. Therefore, if I had to do it all over again, I would have taken any classes that forced me to write more, such as English composition, history, etc. in addition to as much math and science as possible.

Q What is your favorite aspect of your job?

A I love its diversity. There is a healthy mix of working in the field and in the office, meeting with interesting clients, seeing up-close various Naval Installations and manufacturing facilities, traveling to various regions of the country, working with very smart people, and having those “aha” moments when a hypothesis is confirmed by a data set. It’s not overly routine so it keeps it from becoming dull.

Q How do you/ your company make a positive impact on society/ our community?

A The company has given 280 people and me employment for which I am very grateful. Besides this direct economic benefit, our company provides services that restore and prevent impacts to the environment, we provide improved worker safety and protection, we work with private and government agencies on Brownfield redevelopments to revitalize underutilized or contaminated inner city properties (a couple of my favorites being the FedEx forum and the Rail for Trails/Shelby Farms Greenline). These are tangible benefits for us all.



Q What is the most interesting thing you have been able to do in your career?

A Our company supported the Navy in negotiating the transfer of several closed Naval bases and shipyards in California. We helped strike a fair financial settlement between the Navy and the local municipalities that took ownership of the properties so the environmental cleanup could occur during their redevelopment (saves time and money for all parties). These bases had long histories, some dating back to before the Civil War, and all had played important roles in World War II, the Cold War, Korea, and Vietnam Wars (I had the privilege to tour the base where my father-in-law was stationed before departing to Pacific theatre of World War II). They were impressive despite having been closed for many years. It was a privilege being a part of their last chapters. Today, they have been transformed into parks, private ports, houses, and retail centers. I’d love to see how they turned out.

Q What makes you get up each morning excited about your profession?

A It’s a combination of things - the non-routine nature of the work, a vibrant company culture with very nice co-workers, having a healthy mix of different types of sites, and finding solutions through the application of good science and engineering.

Q How does your career incorporate STEM (Science, Technology, Engineering, and Math)?

A Our industry is completely supported by STEM and with the heightened environmental awareness today, the employment opportunities are to remain healthy in the years to come. Our company (EnSafe) employs biologists, chemists, toxicologists, geologists, geophysicists, and all types of engineers. The engineers in our company typically find solutions to the problems while as a geologist, I typically work in a sleuth role – what is the nature of the contaminant, how far has it travelled since its release, where is it going, are there nearby receptors that may be at risk, etc. I rely on my hydrology and math skills for contouring groundwater surfaces, calculating groundwater velocities, estimating mass discharge areas, predicting groundwater travel times to name a few. Technology plays a big role in answering some of these questions. It has been exciting seeing the innovations in tools and drilling over the years and as a result, we are able to better define the nature of the problem, allowing us to be more strategic in treatment and design.

Q What advice would you like to share with K-12 students who are considering your profession?

A Science and engineering are fun. They get you up close to the marvels of nature and why things work. You can make a great career through their study. If you like the math, science, engineering now, stick with it, because it will become even cooler in college.