



video transcript

Day in the Life: Reservoir Simulation Support Team Lead

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I think it's important to balance work and life. I like to run, and hopefully I'll try to finish the Chevron half marathon. I'm not very hopeful about that.

My name is Barış Güyagüler. I am the team lead for the reservoir simulation workflow support team at the energy technology company of Chevron. We support the subsurface reservoir simulation efforts of our business units globally in the corporation. Reservoir simulation is computer based models for the fluids and rocks in subsurface, and the aim here is to forecast the outcomes of various development scenarios in the fields. Remember that the fields are very detached from us. No one has actually gone and seen a reservoir because they are thousands of feet under the ground.

We basically go and take measurements from the field, from the separator in the wells all the way to the pores. We try to match what we see in the fields in the virtual environment within the computer. Once we have done that, we can drill a hypothetical well in the computer and see the effects of that.

Chevron leads the industry in the area of reservoir simulation. We get contacted from all around the world. Our interactions can be as short as a ten minute conversation, or it could be weeks or a month project that will require multiple people, multiple units working together towards the solution.

Without reservoir simulation it would be very difficult for business units to accurately quantify the effects of various development scenarios that they are considering. They would just have to guess, and that's not good enough. We need to be much more accurate, much more scientific and systemic when we're attacking these problems because

the investment is huge.

The one thing that I realized about Chevron and about the industry in general, is how wide the scope is. I'm a petroleum engineer. We have simulator developers on our team that are mathematicians, that are physicists, some are computer scientists, there are chemical engineers, we even have a couple nuclear and astro-physicists. I was focusing on my part and thinking that's about it but once I joined Chevron I realized that there are experts in all kinds of different fields and they all contribute to make up what is Chevron.