Greetings!

It's officially fall, which means it's time to sit back with the hot drink of your choice and catch up with what's going on here at Magnum. In this issue, we will give details about the new patent issued for our oil pumping unit support system, share information about Magnum's representation at the DFI Helical Pile Seminar, sit down and chat with Staff Engineer Kevin Baumgartner, and share a helical pile case history. Read on to get the full stories.

Support System for Oil Pumping Units™ Patent Issued

On June 14th, 2016, U.S. Patent #9,365,998 B2 was issued to Magnum Piering, Inc. for its elevated equipment assembly designed to support oil pumping units. In 2010, Magnum was asked to visit North Dakota by a local oil producer who was having trouble keeping their units online due to soil shifting. North Dakota is plagued with over 6 feet of frost during a typical winter, which causes soil shift as a result of frost heave and fall softening, causing shallow foundations to move differentially several inches in a given winter/spring cycle. Magnum proposed the use of an elevated steel platform on helical piles in order to isolate the foundation from the shifting soils. Since then, nearly 1,000 units have been supported by this method. They have been extensively monitored for fatigue and vibrations and levelness. Foundations outperform conventional shallow concrete slabs.
keeping the pumping units level, protecting them from fatigue and significantly reducing polish rod maintenance. In 2013, the API 11G code for pumping unit support was revised to include elevated steel platforms on helical piles in frost pane areas. Click here to view this patent.

**Magnum Presentations at the DFI Helical Pile Seminar**

Dr. Howard Perko and Melinda Kolm, P.E., represented Magnum Piering and Magnum Geo-Solutions at the DFI Helical Pile Seminar in Ontario, CA on August 11th. Dr. Perko gave a short presentation on the recent code provisions, and he touched on key design considerations for helical piles. Melinda spoke about the importance of accurately predicting accelerations and performance of helical pile supported steel frames due to the increasing use of helical piles in seismic areas. She also compared the results of different design methods with actual frame performance data. One key determination that is emerging with more research is the damping effect that helical piles have under seismic loads.

**A Chat with Kevin Baumgartner, Staff Engineer**

Q: *Can you tell us a little bit about yourself?*

A: I was born and raised in Phoenix, Arizona, along with two older brothers, where I spent most of the summers trying to stay out of...
Q: What did you do before you came to Magnum?
A: Before working at Magnum, I attended the University of New Mexico where I studied civil engineering and played baseball.

Q: What do you like the most about working at Magnum?
A: My favorite thing about working for Magnum is the fast-paced nature of the company. Having the opportunity to work on many different projects with quick turnaround allows for a great deal of learning, and because of this there is never a dull moment.

Q: Do you have any hobbies outside of work?
A: I enjoy hiking, mountain biking, camping, and really anything else outdoors. I am looking forward to learning to snowboard this winter as well.

Helical Pile Installation Case History

Waldo Excavation of Durango, CO installed 535 Magnum® MH425 Helical Piles for the foundation of a large police services facility for the municipality in Phoenix, AZ. Helical piles were chosen for this project for several reasons. The site contained contaminated soil, and utilizing helical piles saved on the cost of hauling the soil away. Skilled installation contractor and former Magnum® "installer of the year", Waldo Excavation, was able to install 50-60 helical piles a day, which saved a tremendous amount of time and money. Two piles were load tested, and 10 piles installed at various locations to check pile torque and depth prior to start of construction. The project was completed ahead of schedule, and the owner/developer was extremely pleased. Click here to view this case history.

Thank you for your time and interest. Contact us for your helical pile, push pier, micropile bracket, and other foundation product needs!

Sincerely,

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