## Construction Type:

## **Horizontal Directional Drilling**

**Project:** Camp Pendleton Conduit

Installation

**Location:** Camp Pendleton, California

## **Project Scope:**

Staheli Trenchless Consultants provided specialty technical services for a Natural Gas Systems Upgrade project at Camp Pendleton, California with horizontal directional drilling(HDD) technology. STC provided value engineering services by optimizing the installation depth of HDPE conduit installed with HDD to allow both efficient installation of the conduit and the economical connection of services. STC evaluated the requisite depth of the HDD installation with respect to effective containment of drilling mud and potential hydrofracture and inadvertent return concerns.



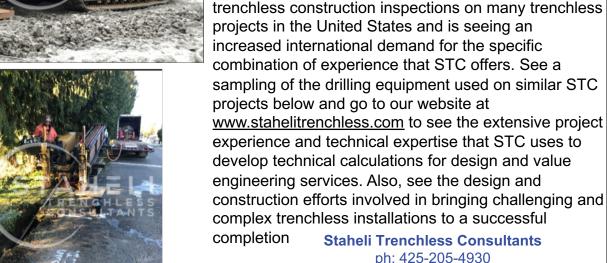


STC has a strong background in hydrofracture prediction, starting with work completed by our principal engineer, Dr. Kimberlie Staheli, with the Army Corps of Engineers. Dr. Staheli is the primary author of Installation of Pipelines Beneath Levees Using Horizontal Directional Drilling prepared for the Pipeline Research Council International, Inc (Staheli, et. al 1998).



Staheli Trenchless has built upon this original research since the early days of hydrofracture prediction and developed an experience based approach combined with the available predictive models to make sure that the design and calculations are backed up with a rational technical approach and supported by observations and construction techniques actually used in the field.

In addition, STC has designed and provided specialty



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