

## Houston Fuel Oil Terminal Company Houston, Texas



**Description:** Ten 80,000-barrel, aboveground cone-roof steel tanks used for petroleum storage. The 100-foot diameter tanks were 56-feet tall and exerted pressures of 3,700 psf.

**Subsurface Conditions:** Highly-variable clay and sandy clay fill soils extending to depths ranging from 5 to 12 feet underlain by native clay soil.

**Design Details:** A total of 315 *Geopier*® soil reinforcing elements were installed at a spacing of 5.5 feet on center beneath each tank. The elements extended to depths of 14 feet to completely penetrate the fill soils. Using two crews, a total of 3,354 Geopier elements were installed at the site to support the tanks and ancillary structures in a period of approximately one month. The *Geopier* soil reinforcement installation provided substantial reductions in the project schedule and afforded cost-savings of up to \$700,000 compared to alternative foundation systems.

**Geopier Designer & Installer:** GFC-Midsouth, Peterson Contractors, Inc.

**General Contractor:** Peterson Contractors, Inc.

**Geotechnical Engineer:** Fugro South, Inc.

**Owner:** Houston Fuel Oil Terminal Company

**Reference:** Mr. Robert Ringholz, P.E. - Fugro South, Inc.