

Slurry Injection BTEX Remediation in New Jersey

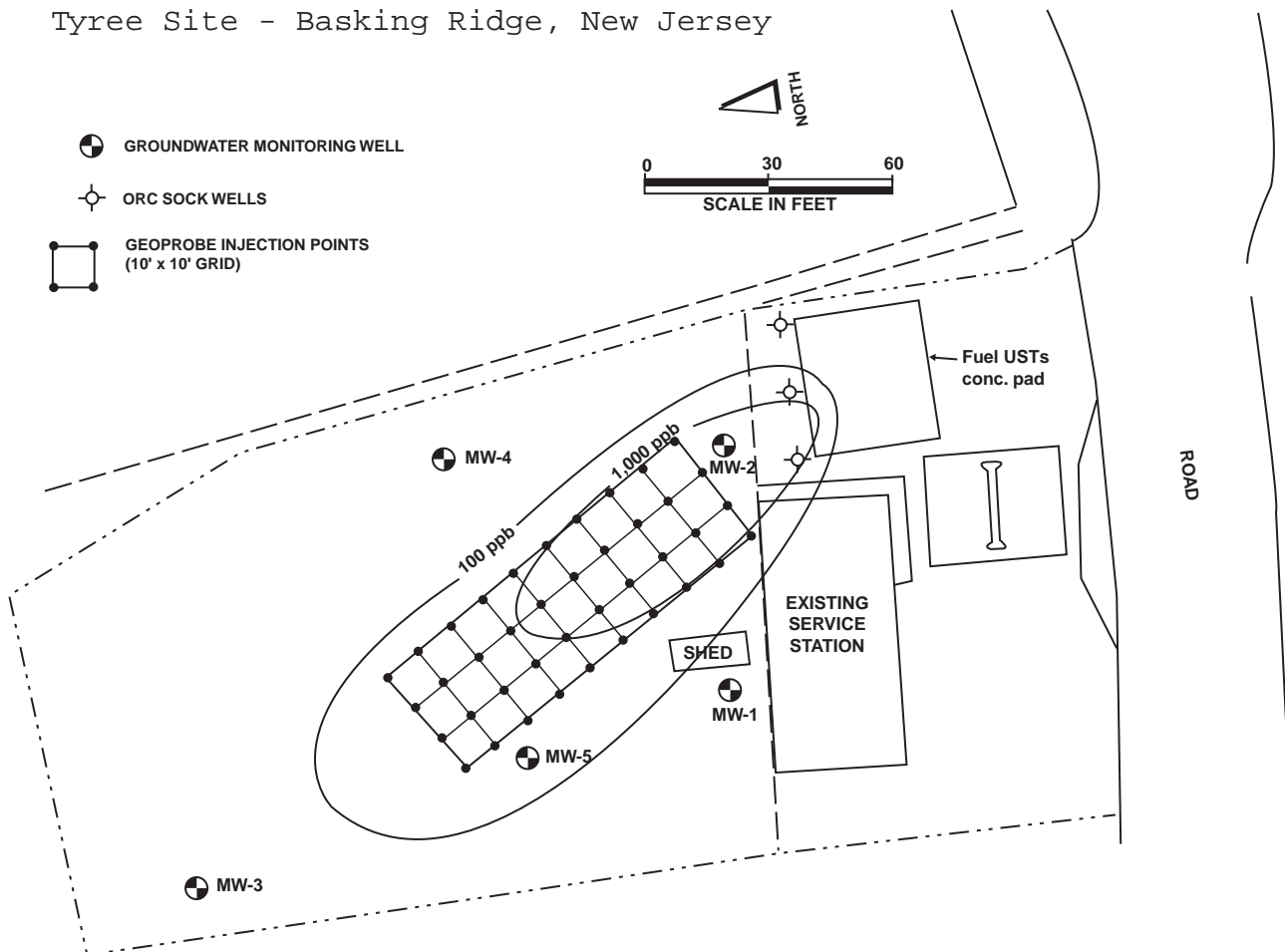
Contaminants	Application Method	Soil Type	Groundwater Velocity
BTEX	Slurry Injection	clays/silts/sands	0.1 ft/day

ORC was installed at an operating retail service station in New Jersey. The treatment area was approximately 2,700 square feet and was contaminated with dissolved phase BTEX in accordance with the contours presented in Figure 1. The aquifer is composed of clays, silts and fine grained sands seven feet below ground surface. The flow is approximately .1 ft/day to the northwest.

As illustrated in Figure 1, 144 Geoprobe points and three 4" wells were installed. One hundred-eighty pounds of ORC were installed as a slurry in the Geoprobe points. Thirty-six ORC filter socks, containing an additional 90 pounds of ORC, were placed in the wells. The total cost for ORC in the project was \$2700.

Figure 1

Tyree Site - Basking Ridge, New Jersey



Results

Significant contaminant reductions were achieved at MW-2, as illustrated in Figure 2, which shows that BTEX was reduced from 820 ppb to 155 ppb in 125 days. MW-2 was the only well on the site with contamination and was clearly impacted by the three upgradient ORC wells. Though installed downgradient of MW-2, the ORC slurry is believed to have also contributed to the clean-up due to its potential to move upgradient of the injection point. However, the main contribution of the slurry application on this site was to stanch the remnant of a plume assumed to be downgradient of MW-2. This low cost use of ORC serves to protect the other monitoring wells downgradient of MW-2.

Figure 2

