

CS14: Vertebrae Influence ROI Comparison to Vertical Wells

SITE

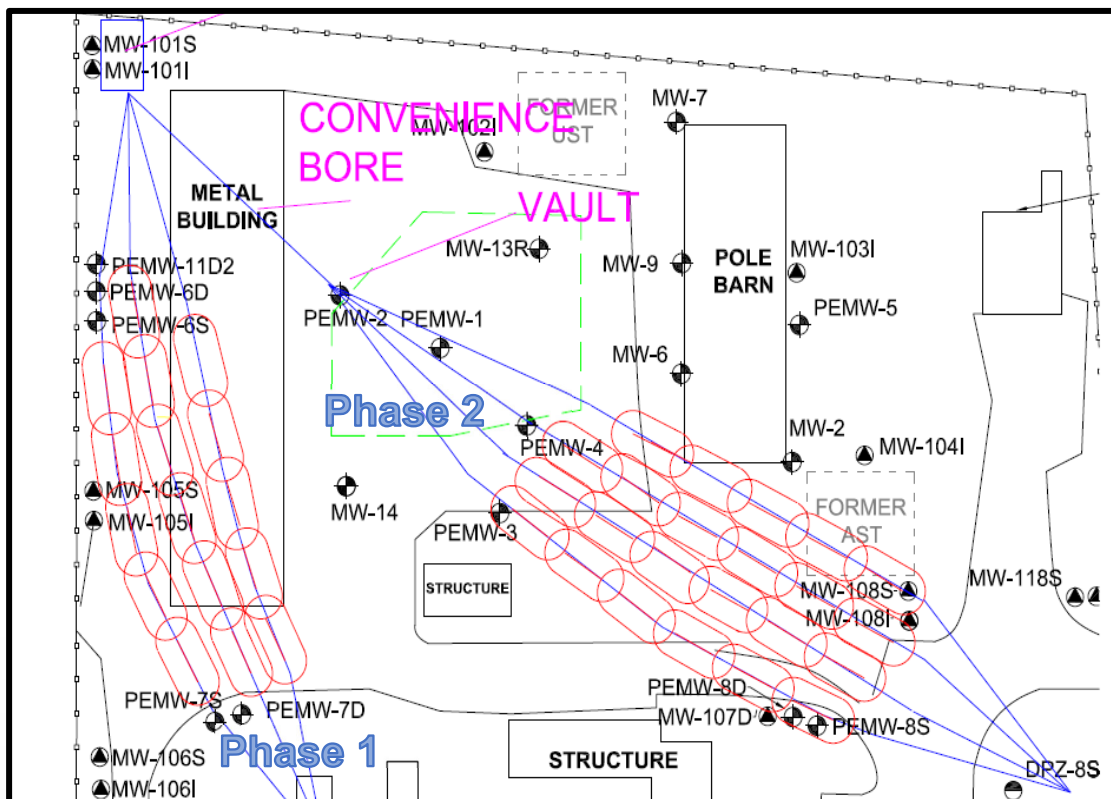
Putnam County Road Camp
Florida FAC.ID-8521000

SITE INFORMATION

The Putnam County Road Camp site contained both AST's and UST's. A petroleum discharge was discovered at the site in 1985. During the assessment phase a vertical biosparging pilot test was performed which concluded that it would be an effective treatment technology and demonstrated a 10-foot radius of influence (ROI). A full-scale system implementing the Vertebrae Well System was designed to address two source areas on site.

DESIGN AND INSTALLATION

The full-scale design includes 7 Vertebrae systems, with 39 independent wells. In order to save on installation cost and to evaluate system performance, a phased approach was used. The installation of Phase I consisted of 3 Vertebrae Well Systems with a total of 16 independent Vertebrae wells to address the source area on the west side of the property. Drilling and installation took place behind the site building where the remediation equipment compound would be located.



SYSTEM OPERATION RESULTS

The system became fully operational in February 2021 and was monitored for 2 quarters to measure positive effects on the aquifer before the application of microbial enhancement compounds, as well as measuring the zone of influence. The field data collected showed that the 10-foot ROI gathered from the vertical pilot test was very conservative when compared to

