

## Temporary Injection Wells – Chlorinated VOC's

Imbedded Bedrock – Hudson, WI

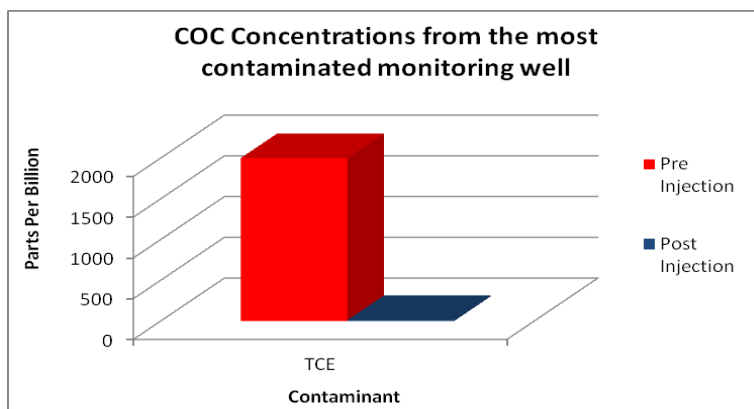
**Project Profile:** Imbedded Bedrock – Hudson WI

**Contaminants:** Trichloroethene (TCE): 2,000 ug/L

**Treatment Chemistry:** Sodium Permanganate

**Impacted Matrix:** Sandstone w/ limestone bedrock

**Project Summary:** ORIN successfully treated chlorinated VOC contaminated groundwater utilizing In-situ chemical oxidation. Prior to ORINs mobilization, three nested temporary injection wells were installed. Five injection wells, screened at different intervals, were installed at each of the three locations. Each of the fifteen injection wells received approximately 150 gallons of permanganate treatment chemistry. Evidence of oxidant influence was observed during the injection by the increase of key groundwater parameters such as DO, ORP and conductivity in monitoring wells down and side gradient while color change occurred in wells within the targeted plume area.



Pre and post injection concentrations of targeted contaminants

**Project Results:** Three months following the injection, monitoring wells were purged and sampled for VOC constituents. Average TCE concentrations were reduced from 2,000 ug/L to 12 ug/L within the pilot test area. Down gradient wells outside of the active injection area also showed a significant reduction.