



# CASE STUDY



## Site Sees PCE Concentrations Reduced Tenfold, While Eliminating Other Contaminants

Newterra supplies a dynamic ozone generating system for a 2-phase pilot program and full-scale remedial operation.

**Market Served:** Remediation  
**Application:** Remediation Technology  
**Location:** California (USA)  
**Challenge:** Soil Contamination  
**Solution/Service:** Mobile Ozone Sparge Unit

### Summary

An Interim Remedial Action Plan (IRAP) was submitted to the Los Angeles Regional Water Quality Control Board (LARWQCB) for the remediation of a facility in Northridge, California. Primary volatile organic carbon (VOC) contamination consisted of tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), and trichloroethene (TCE). Soil lithology in the contamination zone consists mostly of a silt/clay and a silt/sand and a plume volume of approximately 8,000,000 gallons.



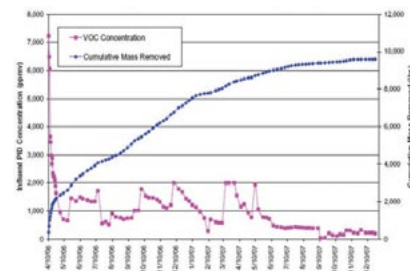
### The Solution

Brown and Caldwell (BC) requested the services of Newterra to supply an ozone generating system for a 2-phase pilot program and full scale remedial operation. Two test injection wells were set at 75 feet below ground level (fbg) were used to determine the theoretical zone of influence (ZOI) during a 45 hour test and effective VOC removal rates over a period of 90 days. A single

point injection system was installed for each test which utilized Newterra's Mobile Ozone Sparge Unit, MOSU20-104, delivering up to 5.47 lbs. per day of ozone at 6% purity.

### The Results

Based on analytical results of DO and ORP, the ZOI was determined to be approximately 15 feet. Concentrations of PCE were decreased from a historical high by over a factor of 10. All other key VOC contaminants decreased to levels below analytical detection limits.



### Project Snapshot

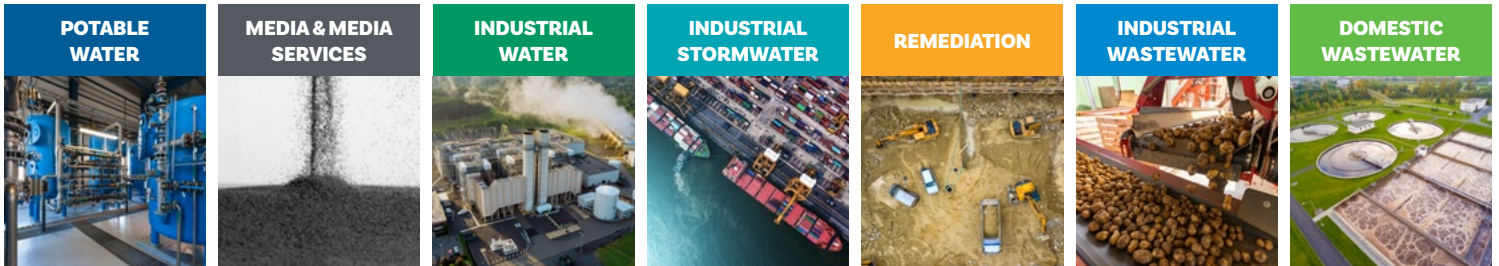
**Existing Conditions:** For the initial treatment phase, soil vapor extraction was chosen as the sole remediation method. Time proved this application had minimal effect on contaminant reduction.

**Newterra Solution:** Brown and Caldwell (BC) requested the services of Newterra to supply an ozone generating system for a 2-phase pilot program and full scale remedial operation. Full scale remedial activities began in April 2009. Concentrations of PCE were decreased from a historical high by over a factor of 10. All other key VOC contaminants decreased to levels below analytical detection limits.

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