

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
DRAFT
MONITORING AND REPORTING PROGRAM NO. R3-2005-0141**

CONCERNING

**MADONNA PLAZA SHOPPING CENTER
227 MADONNA ROAD, SAN LUIS OBISPO,
SAN LUIS OBISPO COUNTY, CA**

This Monitoring and Reporting Program supercedes and replaces Monitoring and Reporting Program No. R3-2005-0028.

CHEMICAL OXIDATION MONITORING

Chemical oxidation involves injection of potassium permanganate to accelerate natural degradation of chlorinated solvent compounds. Madonna Plaza Shopping Center shall monitor the chemical oxidation process in groundwater as follows:

Groundwater samples shall be collected from wells according to the following schedule:

Sampling Event	Analysis Type	Analyte Group/ Parameter
One week After Injection	Field	Potassium Permanganate (KMnO ₄) ¹ , Dissolved Oxygen (DO), Oxygen Reduction Potential (ORP), pH, conductivity, temperature
	Laboratory	Potassium, chloride, sodium, manganese
Periodic Sampling After Injection (monthly for six months then quarterly thereafter)	Field	KMnO ₄ ¹ , DO, ORP, pH, conductivity, temperature
	Laboratory	Volatile Organic Compounds (VOCs) ² General Minerals and Metals

Notes: Any new wells shall be sampled then added to the monitoring and sampling schedule above.

¹ using the colorimetry method

² At a minimum, laboratory results shall report tetrachloroethene, trichloroethene, trichloroethane, dichloroethane, cis 1,2-dichloroethene, trans 1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride concentrations using USEPA 8260B. The detection limit for individual VOCs shall not exceed 0.5 micrograms per liter (µg/L).

All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or at laboratories approved by the Executive Officer. Unless otherwise noted, all sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, United States Environmental Protection Agency, and analyzed as specified herein by the above analytical methods and detection limits indicated.

Depth to groundwater (to 0.01 feet accuracy) shall be measured in each monitoring well before it is purged and sampled. Before sampling, each well shall be properly purged until measurements of the following parameters have stabilized; temperature, pH, specific conductance, turbidity, and dissolved oxygen. After purging, groundwater samples shall be collected and analyzed as listed above.

REPORTING SCHEDULE

Madonna Plaza Shopping Center shall submit two chemical oxidation monitoring and groundwater sampling reports quarterly, by the 30th day of the month following the end of the quarter (January, April, July, and October). The reports shall include the following:

1. Results of field and laboratory sampling required by this program in tabular form.
2. A table with well-completion information, including total depths and screened intervals of each well.
3. Scaled maps showing the site and the locations of all monitoring wells.
4. Maps showing calculated potentiometric surfaces for each water-bearing zone.
5. All previous data in tabular form to allow comparison of historic data.
6. An evaluation and interpretation of all available data.
7. A detailed discussion of the performance of the chemical oxidation treatment and groundwater extraction and treatment system (if operational), including any recommended modifications.
8. Maps showing analyte concentrations.
9. Sampling protocols and field sampling logs.
10. Certified laboratory analytical reports for current data.

The Executive Officer may revise or rescind this MRP.

These requests are made pursuant to the provisions of Section 13267 of the California Water Code. Pursuant to Section 13268 of the Water Code, a violation of a request made pursuant to Water Code Section 13267 may subject you to civil liability of up to \$1,000 per day.

DRAFT

Ordered By: _____

Roger W. Briggs
Executive Officer

_____ Date