



# California Regional Water Quality Control Board

## Los Angeles Region



Linda S. Adams  
Cal/EPA Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013  
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger  
Governor

November 30, 2010

Mr. Masood S. Hosseini  
Southern California Gas Company  
555 West 5<sup>th</sup> Street  
Los Angeles, CA 90013

**GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER CLEANUP AT  
PETROLEUM HYDROCARBON FUEL, VOLATILE ORGANIC COMPOUND AND/OR  
HEXAVALENT CHROMIUM IMPACTED SITES— SOUTHERN CALIFORNIA GAS COMPANY  
VENTURA MAINTENANCE YARD, 1555 NORTH OLIVE STREET, VENTURA (ORDER NO. R4-  
2007-0019, SERIES NO. 142; CI NO. 9637)**

Dear Mr. Hosseini:

We have completed our review of your application for coverage under the General Waste Discharge Requirements (WDRs) to inject oxygen releasing compounds at the site referenced above in Ventura for groundwater cleanup and remediation.

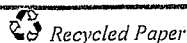
A 6,000-gallon underground gasoline storage tank and a 500-gallon underground diesel storage tank used to refuel the former fleet vehicles were removed from the site in December 2004. Subsequent assessment activities resulted in the installation of 8 groundwater wells, MW-1 through MW-8. Groundwater monitoring data indicated the detection of dissolved hydrocarbons plumes with TPHg up to 10,400 micrograms per liter ( $\mu\text{g/L}$ ), TPHd up to 1,150  $\mu\text{g/L}$ , and MTBE up to 8,800  $\mu\text{g/L}$ ; all other components have been non-detect or close to detection level. Groundwater flow direction is to the south in general, and the newly installed down-gradient wells MW-7 and MW-8 in September 2009 have defined the down-gradient extent of the groundwater plumes to the south.

To remediate the groundwater contaminations beneath the site, you propose to inject oxygen releasing compounds into groundwater. In the "In Situ Chemical Oxidation Pilot Test Workplan," dated April 7, 2010, your consultant, Eco & Associates, Inc., proposes to install one injection wells south of well MW-1 to conduct a pilot study on the effectiveness the RegenOx<sup>TM</sup>, an oxygen releasing compounds. This workplan was approved by Ventura County Division of Environmental Health on May 10, 2010.

We have determined that the proposed discharge meets the conditions specified in Order No. R4-2007-0019, "Revised General Waste Discharge Requirements for Groundwater Remediation At Petroleum Hydrocarbon Fuel, Volatile Organic Compound and/or Hexavalent Chromium Impacted Sites (General WDRs)," adopted by the Los Angeles Regional Water Quality Control Board on March 1, 2007.

Enclosed are your Waste Discharge Requirements, consisting of General WDRs Board Order No. 2007-0019 and Monitoring and Reporting Program No. CI-9637 and Standard Provisions. This Waste Discharge Requirements shall not be terminated without the regulatory oversight agency's prior approval.

*California Environmental Protection Agency*



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2007-0019. All monitoring reports shall be sent to the Regional Board, ATTN: Information Technology Unit.


When submitting monitoring or technical reports to the Regional Board per these requirements, please include a reference to Compliance File No. CI-9637, which will assure that the reports are directed to the appropriate file and staff. Do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

To avoid paying future annual fees, please submit written request for termination of your enrollment under the general permit in a separate letter when your project has been completed and the permit is no longer needed. Be aware that the annual fee covers the fiscal year billing period beginning July 1 and ending June 30, the following year. You will pay the full annual fee if your request for termination is made after the beginning of the new fiscal year beginning July 1.

We are sending a copy of Order No. R4-2007-0019 only to the applicant. A copy of the Order will be furnished to anyone who requests it, or on line at:  
[http://www.waterboards.ca.gov/losangeles/board\\_decisions/adopted\\_orders/general\\_orders/r4-2007-0019/r4-2007-0019.pdf](http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/general_orders/r4-2007-0019/r4-2007-0019.pdf)

If you have any questions, please contact Dr. Rebecca Chou at (213) 620-6156 or [rchou@waterboards.ca.gov](mailto:rchou@waterboards.ca.gov) for WDRs administration matters, or Mr. Gregg Kwey at (213) 576-6702 or [gkwey@waterboards.ca.gov](mailto:gkwey@waterboards.ca.gov) for technical matters.

Sincerely,

  
Samuel Unger, PE  
Executive Officer

Enclosures: Monitoring and Reporting Program No. CI-9637

cc: Ms. Diane B. Wahl, Ventura County Division of Environmental Health  
Mr. Nils Orliczky, Eco & Associates, Inc.

STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI-9637

FOR

SOUTHERN CALIFORNIA GAS COMPANY  
VENTURA MAINTENANCE YARD  
1555 NORTH OLIVE STREET, VENTURA

(FENTON'S REAGENT INJECTION FOR GROUNDWATER CLEANUP)  
(ORDER NO. R4-2007-0019, SERIES NO. 142)

I. REPORTING REQUIREMENTS

- A. Southern California Gas Company (hereinafter Discharger) shall implement this monitoring program on the effective date of Regional Board Order No. R4-2007-0019. The first monitoring report under this program, for the period from January to June 2011, shall be received at the Regional Board by July 15, 2011. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

<u>Monitoring Period</u>	<u>Report Due</u>
January – June	July 15
July – December	January 15

If there is no discharge or injection during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.

- B. Laboratory analyses—all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be provided each time a new and/or renewal certification is obtained from ELAP.
- C. The method limits (MLs) employed for effluent analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Regional Board Executive Officer (Executive Officer). The Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures upon request by the Regional Board.

- D. Groundwater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All QA/QC samples must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff.
- E. Each monitoring report must affirm in writing that "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services, and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program." Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report.
- F. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with WDRs. This section shall be located at the front of the report and shall clearly list all non-compliance with WDRs, as well as all excursions of effluent limitations.
- G. The Discharger shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- H. If the Discharger performs analyses on any groundwater samples more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the report.
- I. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.
- J. The Discharger should not implement any changes to the Monitoring and Reporting Program prior to receiving Executive Officer's written approval.

## II. OXYGEN RELEASING COMPOUNDS INJECTION MONITORING REQUIREMENTS

The Semi-Annually reports shall contain the following information regarding injection activities:

1. Location map showing locations used for the oxygen releasing compounds injection. Currently, one injection well is proposed to be installed south of groundwater well MW-1 (reference to Figure 3). Groundwater wells shall not be used as injection points to avoid reduction of groundwater monitoring network, data bias. Additional injection points shall be reviewed and approved by Ventura County Division of Environmental Health prior to implementation.
2. Written and tabular summary defining the quantity of oxygen releasing compounds injected and a summary describing the days on which the injection system was in operation.

III. GROUNDWATER MONITORING PROGRAM

Please refer to Figures 2 and 3 for groundwater elevation and MTBE concentration distribution. Groundwater flow is generally to the south. The Discharger shall conduct groundwater monitoring at the site. Groundwater samples shall be collected from one up-gradient monitoring wells MW-1, and two down-gradient monitoring wells MW-2 and MW-3. Additional monitoring wells for full scale implementation shall be required by the Ventura County Division of Environmental Health. Groundwater shall be monitored for the duration of the remediation in accordance with the following discharge monitoring program:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Total petroleum hydrocarbons as gasoline (TPHg) and as diesel (TPHd)	µg/L	Grab	• Semi-Annually <sup>1</sup>
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	Grab	• Semi-Annually <sup>1</sup>
Methyl tertiary butyl ether (MTBE), Tertiary butyl alcohol (TBA), Tertiary amyl methyl ether (TAME), Di-isopropyl ether (DIPE), ether (ETBE)	µg/L	Grab	• Semi-Annually <sup>1</sup>
Ethanol Formaldehyde Acetone	µg/L	Grab	• Semi-Annually <sup>1</sup>

Monitoring and Reporting Program CI-9637

Total dissolved solids, Arsenic, Boron, Chloride, Bromide, Sulfate, Lead, Nickel, Cadmium, Manganese	mg/L	Grab	• Semi-Annually <sup>1</sup>
Oxidation-reduction potential	millivolts		• Semi-Annually <sup>1</sup>
Dissolved Oxygen	µg/L	Grab	• Semi-Annually <sup>1</sup>
Dissolved ferrous iron	µg/L	Grab	• Semi-Annually <sup>1</sup>
Total Chromium and chromium six <sup>2</sup>	µg/L	Grab	• Semi-Annually <sup>1</sup>
PH	pH units	Grab	• Semi-Annually <sup>1</sup>
Temperature	<sup>0</sup> F/ <sup>0</sup> C	Grab	• Semi-Annually <sup>1</sup>
Groundwater Elevation	Feet, mean sea level and below ground surface	In situ	• Semi-Annually <sup>1</sup>

<sup>1</sup> One week before injection and Semi-Annually thereafter

<sup>2</sup> The Discharger is required to monitor for total chromium and chromium six in the baseline, second and fourth Semi-Annually sampling. If detected at any of these sampling events, the total chromium and chromium six must be monitored Semi-Annually thereafter.

All groundwater monitoring reports must include, at a minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. Semi-Annually observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.

IV. MONITORING FREQUENCIES

Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the Discharger makes a request and the Executive Officer determines that the request is adequately supported by statistical trends of monitoring data submitted.

V. CERTIFICATION STATEMENT

Each report shall contain the following declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_(Signature)

\_\_\_\_\_(Title)"

VI. PUBLIC DOCUMENTS

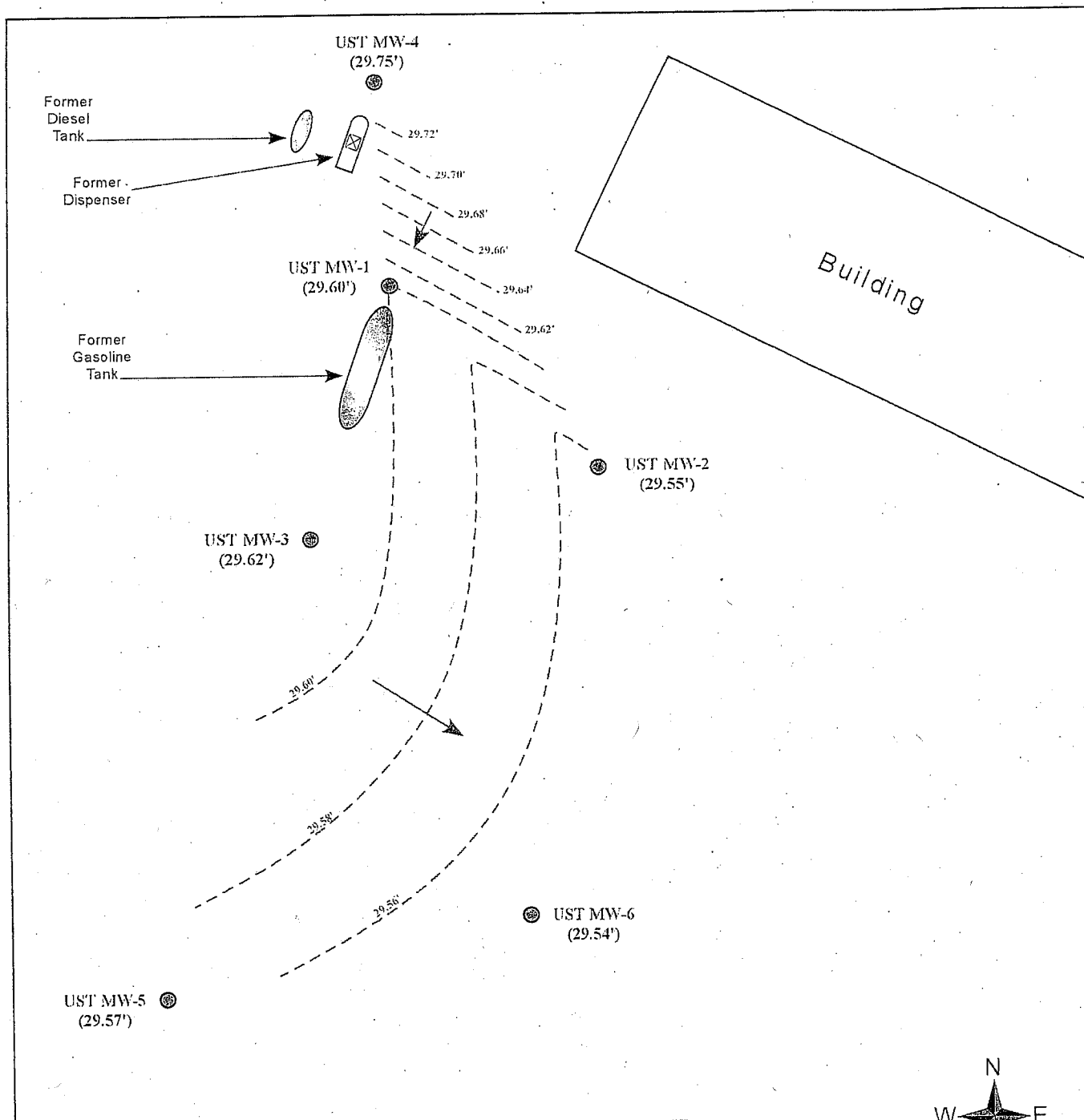
These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by:

Samuel Unger

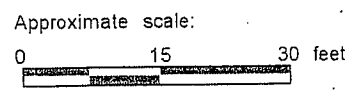
Samuel Unger, PE  
Executive Officer

Date: November 30, 2010



**LEGEND**

- UST monitoring well
- (28.22') Groundwater elevation (feet amsl) measured February 2010
- - - Groundwater elevation contour of equal magnitude
- Groundwater flow direction

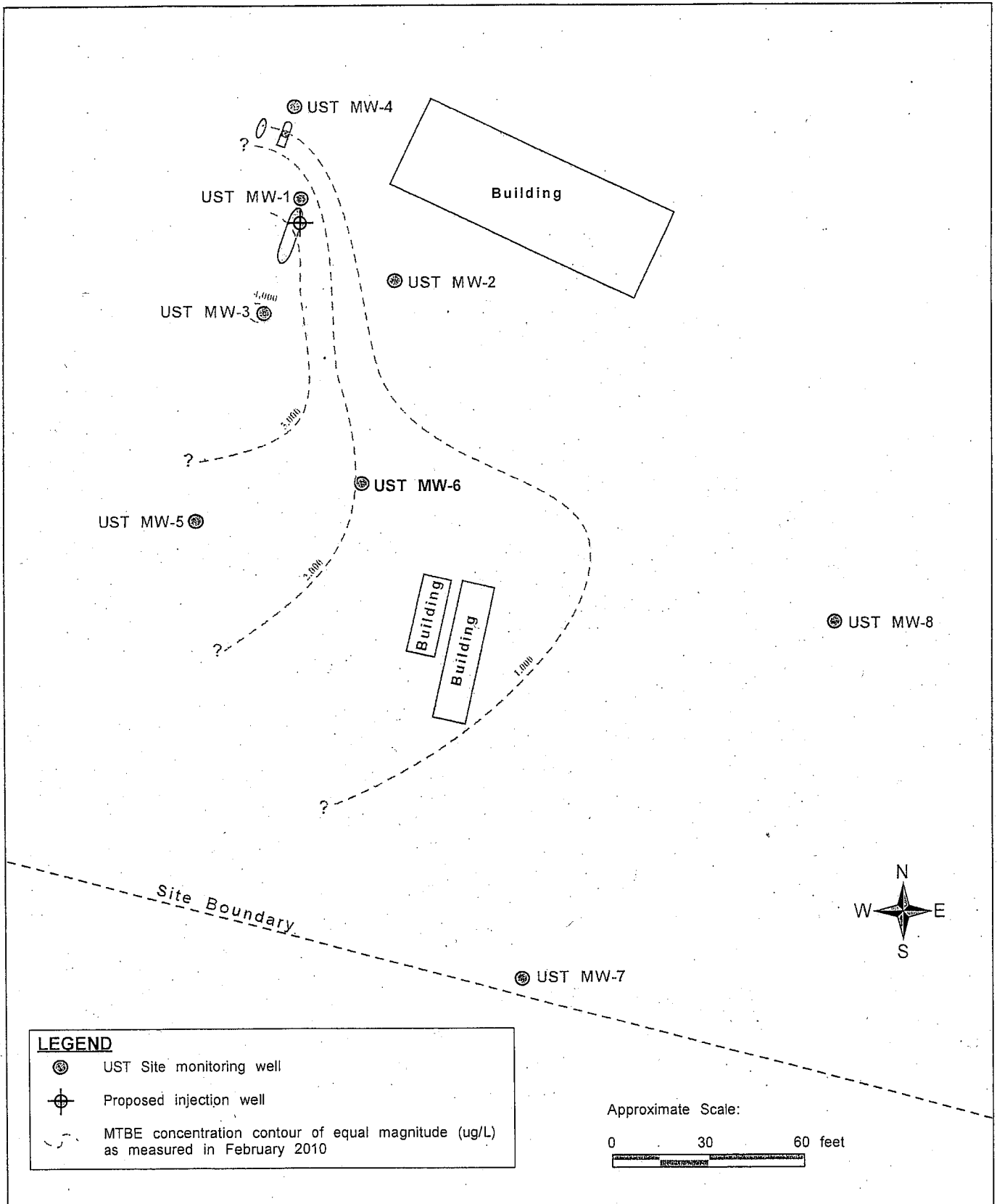


**Eco & Associates, Inc.**  
 1855 W. Katella Avenue, Suite 340  
 Orange, California 92867  
 Phone: 714.289.0995 FAX: 714.289.0965

**SITE PLAN**  
 Southern California Gas Company  
 1555 N. Olive Street, Ventura, CA  
 Project No.: Eco-05.201.2 Dated: April 2010

FIGURE:  
 2

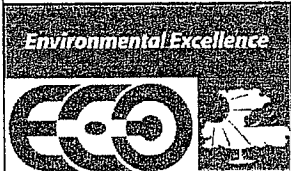




**LEGEND**

- ⊙ UST Site monitoring well
- ⊕ Proposed injection well
- - - MTBE concentration contour of equal magnitude (ug/L) as measured in February 2010

Approximate Scale:  
 0 30 60 feet



Eco & Associates, Inc.  
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 Orange, California 92867

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**ESTIMATED LATERAL EXTENT OF IMPACTED GROUNDWATER**  
 Southern California Gas Company  
 Ventura, CA

Project No.: Eco-05.201.2 Dated: April 2010

FIGURE:  
 3