



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Cal/EPA Secretary

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Arnold Schwarzenegger
Governor

December 22, 2010

Mr. Danial Ravaee
SRDC, Inc.
4242 Vicasa Drive
Calabasas, CA 91302

GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER CLEANUP AT PETROLEUM HYDROCARBON FUEL, VOLATILE ORGANIC COMPOUND AND/OR HEXAVALENT CHROMIUM IMPACTED SITES— SIMI VALLEY CIRCLE K STATION NO. 2705237, 510 EAST LOS ANGELES, SIMI VALLEY (ORDER NO. R4-2007-0019-141; CI NO. 9638)

Dear Mr. Ravaee:

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 Simi Valley for groundwater cleanup and remediation.

The site currently has 4 underground storage tanks (USTs), 6 pump stations and 1 building housing a Circle K store.

Site assessment activities conducted so far have resulted in the installation of 11 groundwater wells and the cumulative groundwater data have identified groundwater hydrocarbons plumes of TPH₉ (up to 27,000 µg/L) and TBA (up to 11,000 µg/L) below the USTs area. Your consultant, Delta consultants, Inc., has prepared the "Pilot Test for Enhanced Bio-Remediation Using Regenesis ORC®," dated May 28, 2010, for a pilot test using Regenesis Oxygen Release Compound (ORC®) for enhanced bio-remediation.

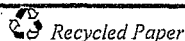
Delta proposes one or more injection events to test the feasibility of ORC® for remediation of petroleum hydrocarbons in the Pilot Test Area shown on Figure 1. This area encompasses the well with the highest on-site dissolved concentrations of TPH₉ and TBA. Eight direct injection points are currently proposed (ORC-1 through -8) in the workplan, and injections will be at 5-foot intervals to the final depths ranging from 15 to 34 feet below ground surface.

A letter dated June 14, 2010, from the Ventura County Environmental Health Division approved the "Pilot Test for Enhanced Bio-Remediation Using Regenesis ORC®."

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-9638 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 reports to the Regional Board per these requirements, please include a reference to Compliance File No. CI-9638, 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

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

Sincerely,


Samuel Unger, PE
Executive Officer

Enclosures: Monitoring and Reporting Program No. CI-9638

cc: Mr. Dacre Bush, Delta Consultants

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

MONITORING AND REPORTING PROGRAM NO. CI-9638

FOR

SRDC, INC.
SIMI VALLEY CIRCLE K STATION NO. 2705237
510 EAST LOS ANGELES, SIMI VALLEY

(OXYGEN RELEASE COMPOUNDS INJECTION FOR GROUNDWATER CLEANUP)
(ORDER NO. R4-2007-0019, SERIES NO. 141)

I. REPORTING REQUIREMENTS

- A. SRDC, Inc. (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 the effective date of this program 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. 8 locations (ORC-1 through -8 as identified in Figure 1) within the Treatment Area are currently proposed to be used as direct-push injection points. Injections will be conducted at 5-foot intervals to the final depths ranging from 15 to 34 feet below ground surface. Groundwater wells shall not be used as re-injection points to avoid reduction of groundwater monitoring network, data bias. Additional injection points should be reviewed and approved by the Ventura County Environmental Health Division 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

The Discharger shall conduct groundwater monitoring at the site. Groundwater samples shall be collected from one up-gradient monitoring wells MW-11; two source area monitoring wells MW-2 and -16; two cross-gradient monitoring wells MW-1 and -15; and one down-gradient monitoring well MW-7 on a semi-annual basis to monitor the effectiveness of the in-situ groundwater remediation. Additional monitoring wells for full scale implementation may be required if Ventura County Environmental Health Division deemed they are necessary. 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 ¹
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	Grab	• Semi-Annually ¹
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 ¹
Ethanol Formaldehyde Acetone	µg/L	Grab	• Semi-Annually ¹

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

¹ One week before injection and Semi-Annually thereafter

² 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)

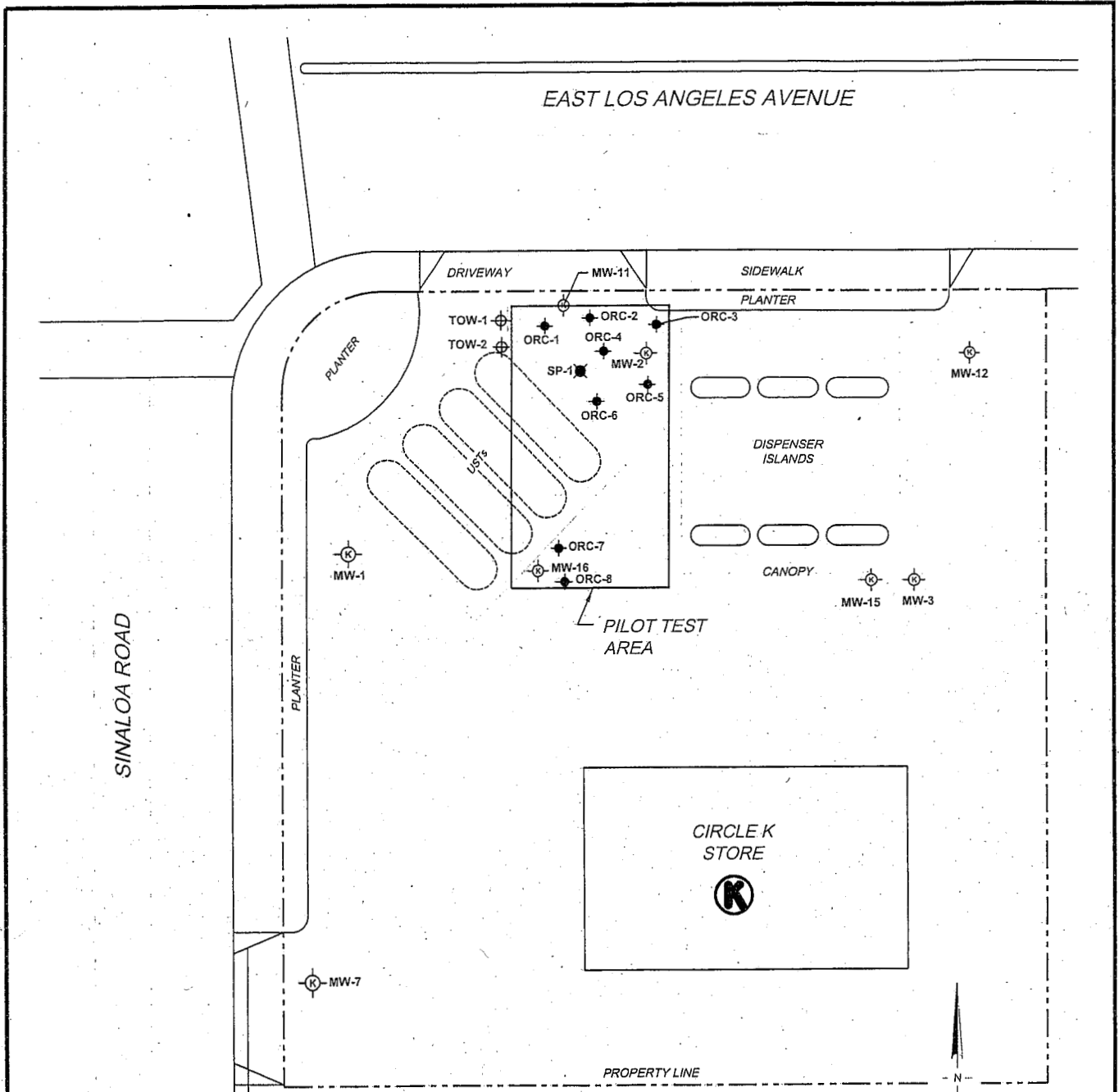
(Title)"

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: December 22, 2010



EXPLANATION

- ORC-8 ● PROPOSED PILOT TEST LOCATION FOR ORC INJECTION
- MW-16 ⊕ CIRCLE K MONITORING WELL LOCATION
- TOW-2 ⊕ LEAK DETECTION WELL LOCATION
- SP-1 ● NESTED WELL LOCATION (a, b, c, d)

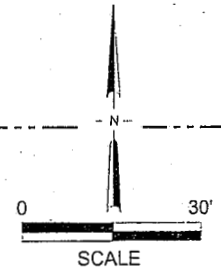


FIGURE 1
PROPOSED PILOT TEST LOCATIONS FOR ORC INJECTION
 CIRCLE K STORE NO. 5237
 510 EAST LOS ANGELES AVENUE
 SIMI VALLEY, CALIFORNIA

PROJECT NO. 142705237	DRAWN BY K. MARTIN	
FILE NO. 5237-SM2	PREPARED BY D. BUSH	
DATE 27 MAY 10	REV. 0	
		REVIEWED BY

REFERENCE: TRC 3/2009.

LAYER: PILOTTEST1