



California Regional Water Quality Control Board

Los Angeles Region



Alan C. Lloyd, Ph.D.
Agency Secretary

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

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Arnold Schwarzenegger
Governor

July 12, 2005

Mr. Mark Kelishadi
Mark's Chevron Station
1965 East Artesia Boulevard
Long Beach, CA 90805

Dear Mr. Kelishadi:

GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER REMEDIATION AT PETROLEUM HYDROCARBON FUEL AND/OR VOLATILE ORGANIC COMPOUND IMPACTED SITES – MARK'S CHEVRON STATION, 1965 EAST ARTESIA BOULEVARD, LONG BEACH, CALIFORNIA (FILE NO. 908050698) (ORDER NO. R4-2005-0030, SERIES NO. 006, CI NO. 8918)

We have completed our review of your application for Waste Discharge Requirements to re-inject treated water from the pump-and-treat system back into the shallow aquifer at the subject site referenced above.

Sherman Car, Inc. (hereinafter Discharger) owns an operating gasoline service station known as Mark's Chevron Station (Site), located at 1965 East Artesia Boulevard, Long Beach, California (Latitude: [North] 33° 52' , Longitude: [West] 118° 10'). The Discharger is remediating contaminated groundwater at the Site, which is located in an area zoned as commercial. The Site currently consists of a small convenience store, four gasoline dispensers, three underground storage tanks (USTs) and a single dispenser island occupying approximately 0.5 acres. A 500-gal waste oil tank was removed in 1999. The Site is bordered on the south by Artesia Boulevard, on the west and north by commercial and residential property, and on the east by Cherry Avenue in Long Beach, California. The property was occupied by a service station since at least 1961. Previously, the site operated under the name Pete's Dairy until it was purchased by the Discharger.

During May 1999, the previous single walled USTs, associated dispenser and piping were removed during facility upgrades and remodeling. No signs of corrosion were observed in the removed USTs; however, soil from above and around the USTs was impacted by petroleum hydrocarbons. Analyses indicated concentrations of TPHg up to 8,250 mg/kg and TPHd up to 2,380 mg/kg from the bottom of the UST excavation. BTEX (up to 802 mg/kg) and MTBE (up to 38.1 mg/kg) were detected in soil samples obtained from the same location. Gasoline constituents were also detected in soil samples collected from the dispenser area and the soil stockpile. However, VOCs were not detected in soil samples collected from waste oil UST excavation. Grab samples of the groundwater within the tank pit indicated the presence of TPHg (4.5mg/l), benzene (1,740 mg/l), and MTBE (0.396 mg/l). This case was then referred to the Los Angeles Regional Water Board on July 7, 1999.

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The Discharger was required by the Regional Board to install four groundwater monitoring wells (MW1 through MW-4) in October 2000. The well borings were drilled to approximately 30-ft. bgs and groundwater was encountered in each well at approximately 10-ft. bgs. In addition, six direct push borings were advanced to 13 ft bgs. A maximum of 21,000 mg/kg TPHg, 1,300 mg/kg of benzene, and 1,300 mg/kg of MTBE were detected in soil samples collected from the four borings.

In February 2002, six additional groundwater monitoring wells (MW5 through MW-10) were installed to further delineate the dissolved-phase hydrocarbon plume. Analysis of soil and groundwater samples collected during well installation did not indicate the presence of TPHg, BTEX, and MTBE at or above their respective detection limits in soil. However, groundwater samples collected at this time showed the presence of BTEX in every groundwater sample.

Data has shown that the impacted soil appears to be limited to the eastern half of the site, near the location of the former and current USTs. The contaminant plume in the vadose zone does not appear to extend beyond the perimeter of the site. Quarterly groundwater monitoring has been conducted at the site for approximately four years. Groundwater samples collected from November 2000 to December 2004 indicate the presence of total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl-tert butyl ether (MTBE). Also, samples were analyzed for fuel oxygenates, including ethyl tert-butyl ether (ETBE), di-isopropyl ether (DIPE), tert-amyl methyl ether (TAME), and tert-butyl alcohol (TBA). Historical groundwater analytical data showed that benzene concentrations ranged from non-detect to 40,000 µg/L and MTBE concentration ranged from non-detect to 2,500 µg/L. Elevated concentrations occur in the immediate vicinity of the southern end of the tank pit which indicates that this location is likely the source area. Offsite migration is apparent downgradient of the Site to the south.

Interim corrective action was taken during the removal of the former fuel tanks at the site. This included the excavation and removal of over 1,200 tons of impacted soil, which were disposed of at a recycling facility. Over 350,000 gallons of impacted groundwater were treated onsite using a carbon treatment system and then discharged to a storm drain per a site-specific NPDES permit. A system of horizontal and vertical slotted pipes was installed in the UST pit prior to the installation of the new tanks. This system was constructed in order to be used for future feasibility testing and /or corrective action.

Your consultant, Geo-Cal Inc. (GCI), submitted "Remediation Action Plan (RAP)," dated January 30, 2004. The RAP presented site-specific information including the site history, previous investigation summary, regional and local geology, and proposed scope of work and including the implementation of a pump-and-treat system. The RAP included a proposal to discharge the treated groundwater to a storm drain. The initial RAP was approved by the Los Angeles Regional Water Quality Control Board in a letter dated March 11, 2004. However, due to high total dissolved solids and nitrogen, the NPDES permit application was rejected. On February 4, 2005, GCI submitted an "Addendum to Remediation Action Plan, (ARAP)" which includes your proposal to reinject the effluent groundwater from the pump-and-treat system to a horizontal re-injection well. On March 10, 2005, Los Angeles Regional Water Quality Control Board staff (Mr. John L. Chiang, Water Resource Control Engineer) approved the ARAP.

Mr. Mark Kelishadi
Mark's Chevron Station
Monitoring and Reporting Program No. CI-8918

- 3 -

July 12, 2005

Any potential adverse water quality impacts that may result shall be of short-term duration, and shall not impact any existing or prospective uses of groundwater.

Regional Board staff have determined that the proposed discharge meets the conditions specified in Order No. R4-2005-0030, "*General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel and/or Volatile Organic Compound Impacted Sites*," adopted by this Regional Board on May 5, 2005.

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2005-0030 (Series No. 006) and Monitoring and Reporting Program No. CI-8918 and Standard Provisions. Should there be a significant delay in the project you must reapply for WDRs.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment (July 12, 2005) under Regional Board Order No. R4-2005-0030. 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-8918, 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.

We are sending a copy of Order No. R4-2005-0030 only to the applicant. A copy of the Order is available from our website (http://www.swrcb.ca.gov/~rwqcb4/html/permits/general_permits.html).

If you have any questions, please contact Mr. Rodney Nelson at (213) 620-6119.

Sincerely,

Jonathan S. Bishop
Executive Officer

Enclosures: 1. Board Order No. R4-2005-0030
 2. Monitoring and Reporting Program No. CI-8918

cc: Mr. Jeff Benedict, City of Long Beach, Department of Health and Human Services
 Ms. Nancy Matsumoto, Water Replenishment District of Southern California
 Mr. Mark Stewart, West Basin Watermaster, California Department of Water Resources
 Mr. Henry Olivier, Geo-Cal, Inc.

California Environmental Protection Agency



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