

Los Angeles Regional Water Quality Control Board

April 25, 2016

Mr. Marc Flannery
Environmental Manger
Circle K Stores, Inc-West Coast Division
255 East Rincon, Suite 100
Corona, CA 92879

Certified Mail with Return Receipt
7002 0860 0004 5295 4587

UNDERGROUND STORAGE TANK PROGRAM—GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER CLEANUP AT PETROLEUM HYDROCARBON FUEL, VOLATILE ORGANIC COMPOUND AND/OR HEXAVALENT CHROMIUM IMPACTED SITES

**MOBIL SERVICE STATION 18EVF/CIRCLE K STORE #2211259
939 NORTH SAN GABRIEL BLVD., ROSEMEAD
(FILE NO. R-09397, ORDER NO. R4-2014-0187; CI NO. 10235)**

Dear Mr. Flannery:

We have received the letter dated November 6, 2015, from your consultant, Blaes Environmental Management, Inc., containing the application for the coverage of the General Waste Discharge Requirements (R4-2014-0187) for your proposed pilot test to monitor and evaluate the effectiveness to conduct a groundwater ozone sparge remedial feasibility test to reduce the remaining concentrations of petroleum hydrocarbons at the subject site.

The site is an active Mobil branded and dealer owned retail fuel service station surrounded by a mixed commercial, retail and residential properties. To date, a total of eleven groundwater monitoring wells (MW-1 through MW-11) have been installed onsite and offsite to determine the extent of petroleum hydrocarbon plume in soil and groundwater beneath the subject site. Ozone sparge remediation wells OS-1 and OS-2 were newly installed onsite in September 2015, to a depth of 85 feet below ground surface. Groundwater is present at the site at a depth of approximately 70.38 feet bgs. Groundwater monitoring and sampling has been conducted at the site since 2008. The most recent groundwater monitoring and sampling event conducted on September 15, 2015, indicated a groundwater gradient generally towards the north-northeast. Currently maximum total petroleum hydrocarbons as gasoline (TPH-g), benzene, methyl tert-butyl ether (MTBE), and tert-butyl alcohol (TBA) reported in groundwater on September 15, 2015, are 3,700 ug/L (MW-1), ND, 1,400 ug/L (MW-4), and 91,000 ug/L (MW-1) respectively.

Previous investigations conducted at the site have included UST system piping and dispenser replacement, site investigations to characterize the extent of petroleum hydrocarbons in soil and groundwater, periodic groundwater monitoring, and SVE feasibility testing.

Due to the relatively high concentrations of TBA and/or MTBE concentrations that are continually detected in the groundwater beneath the site, your consultant is proposing to conduct a groundwater ozone sparge remedial feasibility test to reduce the remaining concentrations of petroleum hydrocarbons in the subsurface soil and groundwater beneath the

subject site. The pilot test will be conducted to substantiate whether or not full-scale implementation of groundwater ozone sparging, combined with soil vapor extraction (SVE), is a suitable remedial technology for the abatement of hydrocarbons in the vadose zone soil and groundwater beneath the site. The proposed remedial testing program will involve the two newly installed ozone test wells, an ozone sparge pilot test, and collection of groundwater samples during the test. Ozone sparge testing will be conducted within both the OS-1 and OS-2 test wells and is expected to be a total of four weeks in duration.

We completed our review and approval of the Remedial Action Plan (RAP) on April 24, 2015, and concurred with the proposal, provided all the conditions required to implement the RAP dated April 25, 2014, continue to be met.

We have reviewed your application and determined that the proposed discharge meets the conditions specified in Order No. R4-2014-0187, "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 September 11, 2014.

Enclosed are your Waste Discharge Requirements, consisting of the General WDRs R4-2014-0187 and Monitoring and Reporting Program No. CI-10235.

When submitting technical monitoring reports to the Regional Board per these requirements, please include a reference to Compliance File No. CI-10235, 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.

In accordance with regulations adopted by the State Board in September 2004, regarding electronic submittal of information, UST monitoring reports have been electronically submitted to the State Board GeoTracker system under the UST Global ID T0603729642. To comply with the Monitoring and Reporting Program under this WDRs, you shall upload the WDRs monitoring reports to the Geotracker under the two Global ID T0603729642 (continuing) and WDR100026610 (new).

To avoid paying future annual fees, please submit a 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.

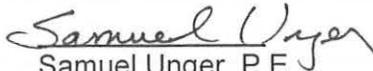
Mr. Marc Flannery
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If you have any questions, please contact Mr. Gregg Kwey at (213) 576-6702 or kwey@waterboards.ca.gov for issues regarding underground storage tanks, or Dr. Eric Wu at (213) 576-6683 or ewu@waterboards.ca.gov for issues regarding the WDRs.

Sincerely,


Samuel Unger, P.E.
Executive Officer

Enclosures:

1. General WDRs Order No. R4-2014-0187
2. Monitoring and Reporting Program No. CI-10235

cc: Micah Reich, SWRCB, Underground Tank Cleanup Fund
Brian Partington, Water Replenishment District of Southern California
Lusi Mkhitarian, Los Angeles County, Department of Public Health, Environmental
Health Division-Water and Sewage
Tim Smith, Los Angeles County Department of Public Works
Kristine Martinez, Blaes Environmental Management, Inc.
Nick Puig, ExxonMobil Environmental Services Company

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

MONITORING AND REPORTING PROGRAM NO. CI-10235

FOR

MOBIL SERVICE STATION 18EVF/CIRCLE K STORE #2211259
939 NORTH SAN GABRIEL BLVD., ROSEMEAD
(OZONE INJECTION FOR GROUNDWATER CLEANUP)
(ORDER NO. R4-2014-0187, SERIES NO. 063)

I. REPORTING REQUIREMENTS

- A. Circle K Stores Inc. (hereinafter Discharger) shall implement this monitoring program on the effective date of this Monitoring and Reporting Program (MRP). The first monitoring report under this program, for the period from the effective date of this MRP to June 30, 2016, shall be received at the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) by July 15, 2016. 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

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 State Water Quality Control Board (State Board), Division of Drinking Water-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 analytical 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 from the Regional Board.

Monitoring and Reporting Program CI-10235

- D. Groundwater samples must be analyzed within allowable holding time limits as specified in 40 Code of Federal Regulation Part 136. All QA/QC samples must be run on the dates when samples are actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request from the Regional Board.
- E. Each monitoring report must affirm in writing that "All analyses are conducted at a laboratory certified for such analyses by the State Board, Division of Drinking Water ELAP, and in accordance with current United States Environmental Protection Agency guideline procedures, or as specified in this MRP." Proper chain of custody procedure 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 entitled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that are needed to bring the discharge into full compliance with Waste Discharge Requirements (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 groundwater samples more frequently than required by this MRP 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 MRP prior to receiving Executive Officer's written approval.

- K. In accordance with regulations adopted by the State Board in September 2004 regarding electronic submittal of information, Underground Storage Tank Program (UST) monitoring reports have been electronically submitted to the State Board GeoTracker system under the UST Global ID T0603729642. To comply with the MRP under this WDRs, the Discharger shall upload the WDRs monitoring reports to the Geotracker under the two Global ID T0603729642 (continuing) and WDR100026610 (new).

II. OZONE SPARGING INJECTION MONITORING REQUIREMENTS

The reports shall contain the following information regarding injection activities:

1. Written and tabular summary defining the quantity of ozone injected and a summary describing the days on which the injection system was in operation.
2. Two injection points are proposed for ozone injection. The proposed remedial testing program will involve the two newly installed ozone test wells OS-1 and OS-2 located in the vicinity of monitoring wells MW-1 and MW-4 (see Figure 2, Site Plan). Additional locations are to be permitted with Regional Board staff concurrence. Proposal for full scale groundwater remediation shall be reviewed and approved by the Regional Board. Please note groundwater wells shall not be used as injection points to avoid reduction of groundwater monitoring network, data bias, screening clogging and alteration.

III. GROUNDWATER MONITORING PROGRAM

The Discharger shall conduct groundwater monitoring at the site. Groundwater samples shall be collected from up-gradient monitoring wells (MW-2), down-gradient monitoring well (MW-8) and cross gradient monitoring wells (MW-1 and MW-4) on a semi-annual basis (see Figure 3 for groundwater flow direction and monitoring wells locations and Figure 7 for representative groundwater TBA plume). Groundwater shall be monitored for the duration of the MRP in accordance with the following discharge monitoring program:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS ¹
Total petroleum hydrocarbons as gasoline (TPH-g) and as diesel (TPH-d)	µg/L	Grab	• Semi-Annually
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	Grab	• Semi-Annually
Methyl tertiary butyl ether (MTBE), Tertiary butyl alcohol (TBA), Tertiary amyl methyl ether (TAME), Di-isopropyl ether (DIPE), ether (ETBE), Naphthalene	µg/L	Grab	• Semi-Annually
Ethanol Formaldehyde Acetone	µg/L	Grab	• Semi-Annually
Total dissolved solids, Arsenic, Boron, Chloride, Bromide, Sulfate, Lead, Nickel, Cadmium, Manganese	mg/L	Grab	• Semi-Annually
Oxidation-reduction potential	milivolts	Grab	• Semi-Annually
Dissolved Oxygen	µg/L	Grab	• Semi-Annually
Dissolved ferrous iron	µg/L	Grab	• Semi-Annually
Total Chromium and hexavalent chromium ²	µg/L	Grab	• Semi-Annually
pH	pH units	Grab	• Semi-Annually
Temperature	⁰ F/ ⁰ C	Grab	• Semi-Annually
Groundwater Elevation	Feet, mean sea level and below ground surface	In situ	• Semi-Annually

¹. One week before injection and semi-annually thereafter.

². The Discharger is required to monitor for total chromium and hexavalent chromium 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-Annual 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 Regional Board.

Ordered by: Samuel Unger
Samuel Unger, P.E.
Executive Officer

Date: April 25, 2016