



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

December 10, 2014

Mr. Danny Monson
Tesoro Refining & Marketing Company LLC
400 Oceangate, Suite 600
Long Beach, CA 90802

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CLAIM NO. 7012 3460 0002 9486 3834

**GENERAL WASTE DISCHARGE REQUIREMENTS FOR IN-SITU GROUNDWATER
REMEDICATION AND GROUNDWATER RE-INJECTION
TESORO STATION # 42089 (FORMER ARCO STATION #6169)
1411 EAST DEL AMO BOULEVARD, CARSON
(I.D. NO. I-00067A) (Priority B-2) (ORDER NO. R4-2014-0187, SERIES NO. 013;
CI NO. 10110)**

Dear Mr. Monson:

We have completed our review of the application for coverage under the General Waste Discharge Requirements to apply chemical oxidant at the site referenced above in Carson, California, for groundwater cleanup and remediation. The application was prepared by your consultant Stantec Consulting Services, Inc. (Stantec), on behalf of Tesoro Refining & Marketing Company LLC (Tesoro).

The Tesoro Station is an active service station located on the northeast corner of the intersection of East Del Amo Boulevard and Central Avenue in Carson, California. One 20,000-gallon and one 12,000-gallon gasoline underground storage tanks (UST) are located on the southwestern portion of the Site. Soil and groundwater contamination was detected after UST replacement in 2000. To date, fifteen groundwater monitoring wells and nine oxygen diffuser wells have been installed onsite and offsite to clean up and monitor the hydrocarbon contamination. Based on the latest groundwater monitoring data collected in July 2014, total petroleum hydrocarbons as gasoline (TPHg), benzene, and methyl tertiary butyl ether (MTBE) were detected up to 23,000 µg/L, 670 µg/L and 17,000 µg/L, respectively, in groundwater samples.

Remediation Description

Groundwater contamination at the site has been mitigated with an oxygen sparging system from nine existing oxygen diffuser wells (DW-1 through DW-9) since 2005. Stantec proposes to temporarily remove the in-situ oxygen curtain diffuser units from the nine diffuser wells, and conduct a pilot test with hydrogen peroxide injection through the oxygen diffuser wells. The remedial action plan was approved by the Regional Board on April 8, 2014.

Application will consist of injecting eight gallons of 7% hydrogen peroxide solution mixing with the Fenton's Reagent into each well. The proposed injection rate is approximately 0.25 to 0.5 gallons per minute.

CHARLES STRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

Regional Board staff has determined that the proposed discharge meets the conditions specified in Order No. R4-2014-0187, "General Waste Discharge Requirements for In-Situ Groundwater Remediation and Groundwater Re-Injection (General WDRs)," adopted by the Los Angeles Regional Water Quality Control Board on September 11, 2014. These Waste Discharge Requirements shall not be terminated without Regional Board's prior approval.

Enclosed are your Waste Discharge Requirements, consisting of General WDRs Board Order No. 2014-0187, and Monitoring and Reporting Program (MRP) No. CI-10110 and Standard Provisions.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2014-0187. 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-10110, 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 Water Resources Control Board 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 T0603791337. To comply with the MRP under the WDR, you shall upload the WDR monitoring reports to the State Database GeoTracker under both Global IDs T0603791337 (continuing) and WDR100019592 (new). For more information regarding the new Global ID for WDR, please see the ESI training video available at:
<https://waterboards.webex.com/waterboards/ldr.php?AT=pb&SP=MC&rID=44145287&rKey=7dad4352c990334b>

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. We are sending a copy of Order No. R4-2014-0187 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/docs/GeneralWDR_R4-2014-0187.pdf.

If you have any questions, please contact Dr. Eric Wu at (213) 576-6119 or send him an email at eric.wu@waterboards.ca.gov for administrative issues and Dr. Weixing Tong at (213) 576-6715 or send him an email at weixing.tong@waterboards.ca.gov for technical issues.

Sincerely,


Samuel Unger, P.E.
Executive Officer

- Enclosures:
1. Board Order No. R4-2014-0187
 2. Monitoring and Reporting Program No. CI-10110
 3. Standard Provisions Applicable to WDRs

Cc Kathy Jundt, State Water Resources Control Board, Underground Storage Tank
Cleanup Fund
Phuong Ly, Water Replenishment District of Southern California
Tim Smith, Los Angeles County Department of Public Works, Environmental Program
Division
Richard Lavin, Los Angeles County Department of Public Health, Environmental Health
Drinking Water Program
Michael Crawley, Stantec Consulting Services, Inc.

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM
FOR
TESORO STATION # 42089 (FORMER ARCO STATION #6169)
1411 EAST DEL AMO BOULEVARD, CARSON
(I.D. NO. I-00067A)
(ORDER NO. R4-2014-0187, SERIES NO. 013, CI NO. 10110)**

I. REPORTING REQUIREMENTS

- A. Tesoro Refining & Marketing Company LLC (hereinafter Discharger) shall implement this monitoring program on the effective date of of this Monitoring and Reporting Program (MRP). The first monitoring report under this program, for January-June 2015, shall be received at the Regional Board by July 15, 2015. 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

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP to the State Water Resources Control Board (SWRCB) GeoTracker database, Attention: Information Technology Unit.

If there is no discharge or injection during any reporting period, the report shall so state.

- B. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the 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 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

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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 "All analyses were conducted at a laboratory certified for such analyses by the State Board ELAP 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 MRP prior to receiving Executive Officer's written approval.
- K. In accordance with regulations adopted by the State Water Resources Control Board 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 T0603791337. To comply with the MRP under this WDR, the Discharger shall upload the WDRs monitoring reports to the GeoTracker system under both Global IDs T0603791337 (continuing) and WDR100019592 (new).

II. Chemical Oxidant (7% Hydrogen Peroxide solution mixed with Fenton's Reagent) MONITORING REQUIREMENTS

The semi-annual reports shall contain the following information regarding injection activities:

1. Location map showing placement locations, used for the chemical oxidant (7% hydrogen peroxide solution mixed with Fenton's Reagent) (refer to attached Figure 1 for site map).
2. Written and tabular summary defining the quantity of chemical oxidant injected to the groundwater and a summary describing the days on which the injection system was in operation.

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Hydrogen Peroxide delivered per location	Gallons and Concentrations	--	• Semi-annually

III. GROUNDWATER MONITORING PROGRAM

The Discharger shall conduct groundwater monitoring at the site. Groundwater samples shall be collected from up-gradient area groundwater monitoring wells MW-6R and MW-3R; source area groundwater monitoring wells MW-2 and MW-7; and down-gradient area groundwater monitoring wells MW-11, and MW-13 (Figure 1) on a semi-annual schedule to monitor the effectiveness of the in-situ groundwater remediation. Groundwater shall be monitored for the duration of the remediation before and after the injection of chemical oxidant in accordance with the following discharge monitoring program:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS ¹
Total petroleum hydrocarbons as gasoline (TPHg)	µg/L ³	Grab	• Semi-annual

Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	Grab	• Semi-annual
Methyl tertiary butyl ether (MTBE), Tertiary butyl alcohol (TBA), Tertiary amyl methyl ether (TAME), Di-isopropyl ether (DIPE), Ethyl tertiary butyl ether (ETBE)	µg/L	Grab	• Semi-annual
Naphthalene Ethanol Formaldehyde Acetone	µg/L	Grab	• Semi-annual ¹
Total dissolved solids, Arsenic, Boron, Chloride, Bromide, Sulfate, Lead, Nickel, Cadmium, Manganese	mg/L ⁴	Grab	• Semi-annual
Oxidation-reduction potential	millivolts		• Semi-annual
Dissolved Oxygen	µg/L	Grab	• Semi-annual
Dissolved ferrous iron	µg/L	Grab	• Semi-annual
Total Chromium and Hexavalent Chromium ²	µg/L	Grab	• Semi-annual
PH	pH units	Grab	• Semi-annual
Temperature	F/ C	Grab	• Semi-annual
Groundwater Elevation	Feet, mean sea level and below ground surface	In situ	• Semi-annual

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-annual sampling. If detected at any of these sampling events, the total chromium and chromium six must be monitored semi-annually thereafter.

³. µg/L = microgram per liter.

⁴. mg/L = milligram per liter.

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)

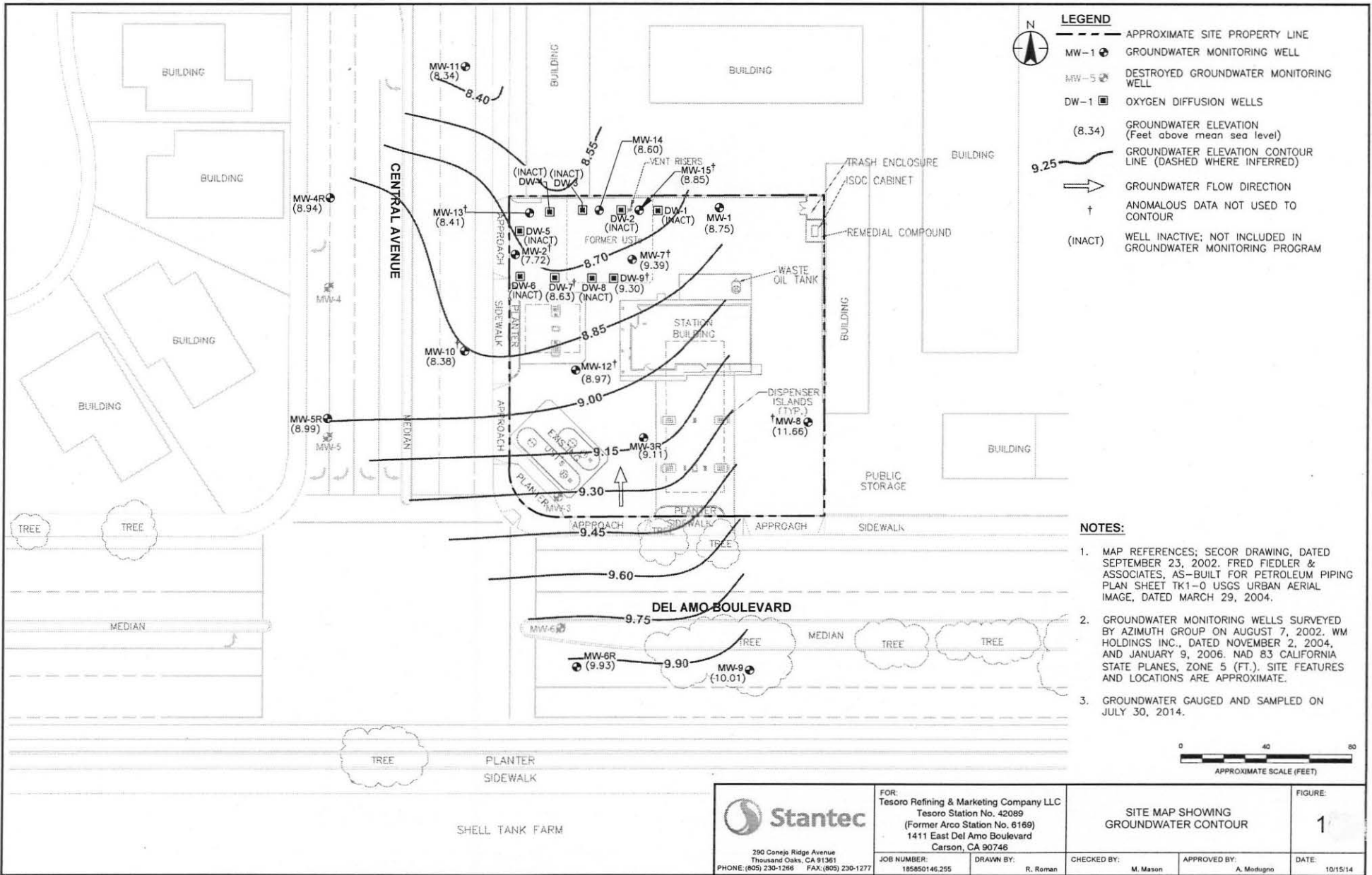
_____(Title)"

VI. PUBLIC DOCUMENTS

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

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

Date: December 10, 2014



290 Conejo Ridge Avenue
Thousand Oaks, CA 91361
PHONE: (805) 230-1266 FAX: (805) 230-1277

FOR:
Tesoro Refining & Marketing Company LLC
Tesoro Station No. 42089
(Former Arco Station No. 6169)
1411 East Del Amo Boulevard
Carson, CA 90746

JOB NUMBER: 185850146.255
DRAWN BY: R. Roman

SITE MAP SHOWING
GROUNDWATER CONTOUR

FIGURE:

1

CHECKED BY: M. Mason
APPROVED BY: A. Modugno
DATE: 10/15/14