California Regional Water Quality Control Board
North Coast Region

MONITORING AND REPORTING PROGRAM NO. R1-2013-0021

[Replacing Monitoring and Reporting Program No. R1-2009-0085]

For

SHELL OIL PRODUCTS US

SHELL SERVICE STATION
255 DUTTON AVENUE

And

SHELL DZ PRODUCTS FACILITY
257 DUTTON AVENUE

Sonoma County

This Monitoring and Reporting Program Order (Order) is issued pursuant to California Water Code Section (CWC) 13267(b) and requires monitoring of water supply wells and wellhead treatment systems, and submission of technical reports. This Order replaces all previously issued groundwater monitoring directives for the site. The objective of monitoring conducted under this Order is to provide the Discharger and the Regional Water Board with information concerning groundwater quality, contaminant trends and the effective maintenance of wellhead treatment systems.

GENERAL REQUIREMENTS

1. All monitoring and reporting activities shall be conducted by or under the supervision of a California Registered Engineer or Geologist.

2. Chemical analyses required by this Order shall be conducted by a laboratory certified for those analyses by the California Department of Public Health.

Under the authority of CWC section 13267, the Dischargers named above are required to comply with the following:

MONITORING

3. The wellheads of all groundwater monitoring wells shall be inspected at least quarterly to confirm accessibility and identify signs of physical impairment. Accessibility to all groundwater monitoring wells for sampling and maintenance purposes shall be maintained.

4. The water supply wells located at 258 Dutton Avenue and 270 Dutton Avenue in Santa Rosa (Water Supply Wells) shall be inspected at least quarterly to confirm proper operation of the wellhead treatment systems and security from unauthorized access.

5. The Water Supply Wells and wellhead treatment systems shall be sampled for analysis at least quarterly. All samples shall be collected and contained in a manner that minimizes exposure of the samples to air. The following samples shall be collected for each well:

    a. Untreated water from the wells;

    b. Effluent from the first activated carbon filtration vessel, and effluent from additional midpoint carbon vessels, if applicable; and

    c. Final effluent from the wellhead treatment systems.

6. Samples from the Water Supply Wells and treatment systems shall be analyzed for the following constituents of concern:

    a. Total Petroleum Hydrocarbons measured as gasoline;

    b. Volatile Organic Compounds, including:

        i. Benzene, toluene, ethyl benzene, xylenes, and methyl tertiary butyl ether (MTBE), tert-Butyl alcohol (TBA); and

        ii. Chlorinated Volatile Organic Compounds

7. Analytical methods for sample analyses shall achieve minimum detection levels that are adequate for evaluating regulatory action levels for each constituent. A table of commonly achievable practical quantitation limits for the constituents of concern is incorporated in this Monitoring and Reporting Program Order as Appendix A.

REPORTING

8. If constituents of concern are detected above laboratory detection limits in the treated effluent for either of the Water Supply Wells, the Dischargers shall provide written notification to the well owners and users within twenty-four hours of receipt of the laboratory results. A statement shall be submitted to Regional Water Board staff within seventy-two hours to specify the recipients, the content, and dates of the notifications.

9. Monitoring reports shall be submitted in paper format semi-annually to the North Coast Regional Water Quality Control Board at 5550 Skylane Boulevard, Suite A, Santa Rosa, California, 95403 according to the following schedule:

Report	Reporting Period	Required Submittal Date
1st Semi-annual Report	January through June	July 31
2nd Semi-annual Report	July through December	January 31

10. Monitoring reports shall include the following elements:

    a. A narrative description of the work conducted, including a description of the actions taken to respond to the breakthrough of constituents of concern in the final effluent of the Water Supply Well treatment systems;

    b. A monitoring well inventory table identifying all groundwater monitoring wells, piezometers, and vapor extraction wells, identifying the construction details and status for the each monitoring and remediation well, and the date of decommissioning, if applicable;

    c. A site plan, showing the locations of all monitoring and remediation wells, including the Water Supply Wells.

    d. A table summarizing the analytical results for samples collected from the Water Supply Wells and wellhead treatment systems, including both current and historical analytical results; the table shall also identify the dates of replacement for activated carbon used in the wellhead treatment systems; and

    e. Copies of the well purging and sampling field logs; chain of custody documents; and signed laboratory reports including quality control data and explanations of analytical anomalies, if any. These supporting documents may be included as appendices to the report.

12. Laboratory analytical results and monitoring reports shall also be submitted electronically to the State Water Resources Control Board's Geographic Environmental Information Management System database (GeoTracker) as required by Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations.

Ordered by _____
Matthias St. John
Executive Officer

March 11, 2013

Table of Water Quality Objectives

Petroleum and Halogenated Volatile Organic Compounds

CHEMICAL	Common Minimum Detection Level (µg/L = micrograms per liter)	WATER QUALITY OBJECTIVE [1]	WATER QUALITY OBJECTIVE CITATION
Petroleum Hydrocarbons (as gasoline)	50 µg/L	< 50 µg/L	Taste and Odor Threshold is 5 ug/l, but the common detection limit is 50 µg/l
Benzene	0.5 µg/L	0.15 µg/L	California Public Health Goal
Toluene	0.5 µg/L	42 µg/L	Taste and Odor Threshold
Ethyl benzene	0.5 µg/L	3.2 µg/L	Cal/EPA Cancer Potency Factor
Xylenes	0.5 µg/L	17 µg/L	Taste and Odor Threshold
Methyl tertiary butyl ether	0.5 µg/L	5 µg/L	California Secondary Maximum Contaminant Level TASTE and ODOR THRESHOLD
Tert-Butyl-alcohol t-butyl alcohol	<0.5 µg/L	12 µg/L	California Department of Health Services California Notification Level in Drinking Water
Trichloroethene	<0.5 µg/L	0.8 µg/L	California Public Health Goal
Tetrachloroethene	<0.5 µg/L	0.06 µg/L	California Public Health Goal
Vinyl Chloride	<0.5 µg/L	0.05 µg/L	California Public Health Goal
Carbon tetrachloride	0.5 µg/L	0.1 µg/L	California Public Health Goal
Chloroform	0.5 µg/L	1 µg/L	California Public Health Goal
Cis-1,2-Dichloroethene	< 0.5	6	California Department of Health Services Maximum Contaminant Level

[1] The California Water Code, and regulations and policies developed thereunder require cleanup and abatement of discharges and threatened discharges of waste to the extent feasible. Cleanup and abatement activities are to provide attainment of background levels of water quality or the highest water quality that is reasonable if background levels of water quality cannot be restored. Alternative cleanup levels less stringent than background concentration shall be permitted only if the discharger demonstrates that: it is not feasible to attain background levels; the alternative cleanup levels are consistent with the maximum benefit to the people of the State; alternative cleanup levels will not unreasonably affect present and anticipated beneficial uses of such water; and they will not result in water quality lower than prescribed in the Basin Plan and Policies adopted by the State and Regional Water Boards.