CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. R2-2015-0015

RESCISSION OF SITE CLEANUP REQUIREMENTS (ORDER No. R2-2008-0032) for:

CLARE AND WAYNE LEUNG

for the property located at:

2771 HOPYARD ROAD
PLEASANTON, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Regional Water Board), finds that:

1. **Regional Water Board Order:** The Regional Water Board adopted final site cleanup requirements for the site located at 2771 Hopyard Road, Pleasanton (Site) on May 29, 2008 (Order No. R2-2008-0032). This order names Clare and Wayne Leung as dischargers.

2. **Compliance with Board Order:** Order No. R2-2008-0032 required the dischargers to define the extent of pollution at the Site and implement the remedial action plan. The dischargers completed these tasks.

3. **Basis for Rescission**: Rescission of Order No. R2-2008-032 is appropriate for the reasons discussed below:

    a. **Pollutant sources are identified and evaluated**. The source was the release from a dry cleaning facility of tetrachloroethene (PCE) and its breakdown products, collectively referred to as chlorinated volatile organic compounds (CVOCs).

    b. **The Site is adequately characterized**. The Site was adequately characterized - both vertically and horizontally - through a series of investigations of groundwater, soil, soil vapor, and indoor air starting in 2002. Seven groundwater monitoring wells were installed with four wells installed in the A Zone west and northwest of the Site and three wells installed in the B Zone west of the Site. Multiple grab groundwater sample boreholes were advanced to define the plume, including three along the downgradient plume boundary, one of which contained enough groundwater to sample. Data from the downgradient Valero gas station monitoring wells PMW-1 and MW-7 were also reviewed and evaluated. The A Zone extends from approximately 20 to 30 feet below ground surface (bgs), and the B Zone extends from approximately 40 to 45 feet bgs down to 65 feet bgs. There is a 15- to 22-foot thick aquitard between the A and B zones. Four performance monitoring wells were installed to monitor the effectiveness of the enhanced reductive dechlorination pilot study. The groundwater flow in the A Zone is to the north/northwest and the groundwater flow in the B Zone is to the southwest. Five soil boreholes were advanced within the dry cleaning facility and over

thirty soil boreholes were advanced outside the dry cleaning facility. Seven soil vapor monitoring points were installed near offsite commercial buildings and near the residential area south of the Site. Indoor air sampling was performed in two of the nearby commercial buildings and in the dry cleaning facility.

c. Exposure pathways, receptors, and potential risks, threats, and other environmental concerns are identified and assessed. The Site is currently zoned and used for commercial use. A residential area exists 100 feet south of the Site. Shallow groundwater beneath the Site is not currently used for drinking water. The B Zone is separated from the deeper aquifer, which is used for drinking water, by a 20-foot thick aquitard. There are five public water supply wells within 650 to 1,500 feet of the Site, and the nearest well is located approximately 650 feet northeast and cross- and down-gradient of the Site. All five wells have tested non-detectable for CVOCs. Vapor intrusion is discussed in finding 3e.

d. Pollutant sources are remediated to the extent feasible. Soil vapor extraction (SVE) remediation operated from 2008 to 2013 and removed approximately 27 pounds of PCE from beneath the dry cleaning facility. Mass removal efficiency reached asymptotic levels after a rebound test that indicated no increase in recoverable PCE in soil vapor. Soil excavation was not feasible due to the location of the PCE-impacted soil under the existing building. Groundwater was remediated by enhanced reductive dechlorination or ERD. Carbohydrate solutions were injected into the A Zone between 2010 and 2014. ERD substantially decreased the CVOC levels in most of the wells to non-detectable levels with low to trace levels remaining in two of the wells in the treatment area (discussed in findings 3f and g below).

e. Unacceptable risks to human health, ecological health, and sensitive receptors, considering current and future land and water uses, are mitigated. The only potential risk to human health is through the vapor intrusion pathway. Soil vapor levels are below environmental screening levels (ESLs) except for well VP-1, located near the liquor store next to the Site. The table below shows the maximum post-SVE CVOC levels in VP-1.

Maximum 2014 Soil Vapor Concentrations (ug/m^3) in VP-1				
	PCE	TCE	c-DCE	VC
Maximum Detection	38,000	15,000	760	ND<140
Commercial ESL	3,000	2,100	3,700	160

Notes: ug/m^3 – micrograms per cubic meter
PCE = tetrachloroethene
TCE = trichloroethene
c-DCE = cis-1,2-dichloroethene
VC = vinyl chloride

However, indoor air testing in the dry cleaning facility, adjacent liquor store, and in the downgradient bookstore indicated that CVOCs in the breathing zone of the occupied spaces were either not detected or below commercial ESLs. One indoor air pathway sample from the bathroom at the bookstore slightly exceeded the ESL.

f. Unacceptable threats to groundwater and surface water resources, considering existing and potential beneficial uses, are mitigated. Groundwater CVOCs have been remediated to nondetectable levels to low multiples of the cleanup levels in the A Zone wells. Groundwater CVOCs are at nondetectable to near cleanup levels in the B Zone wells. The table in finding 3.g below shows the residual maximum groundwater-CVOC levels. The residual groundwater-CVOC concentrations shown in finding 3.g do not pose an unacceptable threat to the deep aquifer for the following reasons:

- The residual groundwater-CVOC concentrations are at very low levels due to successful ERD remediation.
- The groundwater-TCE plume has decreased to within 180 feet of the Site and groundwater-PCE, -DCE and -vinyl chloride plumes have been reduced to within 80 feet from the Site.
- There is a 15- to 22-foot-thick aquitard between the A and B zones.
- There is a 15- to 20-foot-thick aquitard between the B Zone and the deep aquifer.
- There are no known potential conduits near the site.
- The closest public water supply well is approximately 650 feet from the Site and is not planned to be active in the foreseeable future. No CVOCs have been detected in the water supply well and the well will not be affected by the low CVOC concentrations remaining in shallow groundwater.

g. Groundwater plumes are decreasing. Monitoring results over the past seven years indicate that the groundwater plumes have decreased substantially and continue to decrease. The table below shows the maximum residual groundwater-CVOC levels in the A and B zones. In the A-Zone wells, ERD remediation decreased groundwater-PCE from 18,000 micrograms per liter to slightly above the cleanup level of 5 micrograms per liter. TCE, trans- and cis-1,2-DCE decreased to slightly above or at low multiples of the cleanup level in three wells. Vinyl chloride decreased to low multiples of the cleanup level in seven wells. In the B-Zone wells, the highest groundwater-PCE level is just above the cleanup level and other CVOCs are at non-detectable to near non-detectable levels.

	Maximum 2014 Groundwater Concentrations (ug/L)				
Maximum Detection	PCE	TCE	c-DCE	t -DCE	VC
A Zone	8.2	7.1	68	21	9.4
B Zone	7.0	ND<1.0	0.59	ND<1.0	ND<1.0
California MCL	5	5	6	10	0.5

Notes: ug/L = micrograms per liter
MCL = Maximum Contaminant Levels for drinking water
t-DCE = trans-1,2-dichloroethene
NE = not established

h. Cleanup Standards can be met within a reasonable time frame. Natural attenuation is expected to decrease the remaining contaminant concentrations in shallow groundwater to below cleanup levels before the contamination can migrate to the nearby wells in levels above the MCLs. Based on time-concentration graphs for the groundwater monitoring wells, it is reasonable to conclude that CVOCs will continue to decrease below cleanup levels.

i. Risk management measures are appropriate, documented, and do not require further Regional Water Board oversight. A deed restriction was recorded on February 11, 2015, that restricts sensitive land uses and use of groundwater. The approved risk management plan contains procedures to address potential future redevelopment, including soil investigation and remediation and vapor intrusion evaluation and mitigation, if needed.

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4. **Next Steps Prior to Case Closure:** Monitoring and soil vapor wells owned by the dischargers need to be properly closed before this case is closed by the Regional Water Board to eliminate vertical conduits for potential future groundwater contamination.

5. **California Safe Drinking Water Policy:** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy because maximum contaminant levels (designed to protect human health and ensure that water is safe for domestic use) are and will continue to be met in existing and future supply wells. The extent of contamination from the Site does not reach the nearby water supply wells and is not expected to migrate to the water supply wells at levels above the maximum contaminant level as discussed in finding 3.f. A deed restriction will ensure no contact with the residual contaminated groundwater.

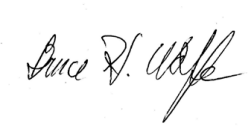
6. **CEQA**: This action rescinds an order to enforce the laws and regulations administered by the Regional Water Board. Rescission of the order is not a project as defined in the California Environmental Quality Act (CEQA). There is no possibility that the activity in question may have a significant effect on the environment. (Cal. Code Regs., tit. 14 §§ 15378 and 15061, subd. (b) (3).)

7. **Notification**: The Regional Water Board has notified the dischargers and all interested agencies and persons of its intent under Water Code section 13304 to rescind site cleanup requirements for the discharge and has provided them with an opportunity to submit their written comments.

IT IS HEREBY ORDERED, pursuant to sections 13304 and 13267 of the Water Code, that Order No. R2-2008-0032 is rescinded.

IT IS FURTHER ORDERED that the dischargers shall properly close all monitoring wells consistent with applicable local agency requirements and shall document such closure in a technical report to be submitted to the Regional Water Board within 30 days following the completion of closure activities.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 30, 2015.



Digitally signed by Bruce H. Wolfe
DN: cn=Bruce H. Wolfe, o=SWRCB, ou=Region 2, email=bwolfe@waterboards.ca.gov, c=US
Date: 2015.04.30 18:53:03 -07'00'

Bruce H. Wolfe
Executive Officer

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FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

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